21st EUMASS Congress and the 4th International Congress of Medical Assessors in the Republic of Slovenia

Ljubljana

Research, education, and practice in insurance medicine and social security

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21ST EUMASS CONGRESS
and the
4TH INTERNATIONAL CONGRESS OF MEDICAL ASSESSORS IN THE REPUBLIC OF SLOVENIA

Research, education, and practice in insurance medicine and social security

Ljubljana, Slovenia, 09. - 11. JUNE 2016

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Editor:
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Design:
Fondant, s.p.
Proletarska cesta 2
1000 Ljubljana

Publisher:
Domus, d.o.o.
Bregarjeva ulica 37
1000 Ljubljana

Year of publication:
Ljubljana, June 2016
Dear Participants!

The Organising and Scientific Committees of the 21st Congress of the European Union for Medicine in Assurance and Social Security (EUMASS) and the 4th International Congress of Medical Assessors of the Republic of Slovenia have, under the sponsorship of two ministries of the Republic of Slovenia (Ministry of Labour, Family, Social Affairs and Equal Opportunities and the Ministry of Health), organised a joint congress which will takes place in the beautiful capital city of the Republic of Slovenia.

The congress is the biggest event this year in Europe in the field of medicine in social security and vocational rehabilitation. It offers an excellent opportunity to exchange opinions and experiences with professionals in social medicine, vocational rehabilitation and other experts who are working in the fields of social medicine and social security. It is therefore meant for all who are working in the enforcement of social benefits where medicine is present – from the preparation process to judicial protection.

Our participants come from many European countries and other continents. We have attracted many professionals from above fields to actively participate at the congress and who will present the issues from the scientific as well as the practical point of view. This will allow all our participants to get acquainted with the newest trends in research and proceedings in social security and vocational rehabilitation.

We have prepared a broad programme of lectures and workshops and a very diverse poster section. We wish to present the scientific theme, research work and good practices at the plenary sessions, numerous parallel sessions and workshops in the best light possible. We are especially proud on the large number of posters.

During the congress, a staggering 129 lecturers will present their work (18 Professors, 10 Assistant Professors, 12 Masters of Science and 14 Doctors of Science). Our “double” congress (21st EUMASS and 4th ICMA) will make a major contribution to the creation of the common doctrine in the corresponding fields and to a larger implementation of medical assessment in Europe.

During our efforts to create a higher scientific level we have not forgotten about the well-being of our participants. The congress venue is namely located in the very centre of the city and offers easy accessibility where one can work undisturbed with a touch of art nouveau Ljubljana.

In addition to the scientific programme, the participants can also enjoy many positive challenges in the 2016 Green Capital of Europe as the ancient cheer of the early Roman residents of Emona still holds its ground - CARPE DIEM!

Dear congress participants, I hope the broad scientific programme, meeting with friends, the informal exchange of work experience and a pleasant stay at our capital city of Ljubljana will remain in your memory as a pleasant and positive experience.

President of the Organising Committee
Dean Premik, MSc
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Therese Ljung, PhD - The Swedish Social Insurance Agency, Sweden

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Callens Michael, MD. - Belgian Intermutualistic Agency (IMA) - Christian mutual health insurance funds, Belgium

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1. Kristel Helma Nicole Weerdesteijn, MD MSc DRS - Research Center for Insurance Medicine (KCVG) & Department of Public and Occupational Health, EMGO+ Institute, VU University Medical Center / Amsterdam / The Netherlands

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Jerry Spanjer, MD PhD - Dutch National Institute for Employee Benefits Schemes, Groningen, the Netherlands

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1. Solli, Hans Magnus, MD PhD - Research Unit, Division of Mental Health and Addiction, Vestfold Hospital Trust, Tønsberg, Norway; 2. Barbosa da Silva, Antônio, PhD - Ansgar College and Theological Seminary

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New Medical Technologies and Their Impact on Functional Ability, Subtitle Cranioplasty and Deep Brain Stimulation

1. Tadej Strojnik, MD PhD - Department of neurosurgery, University medical centre Maribor, Ljubljanska 5, SI-2000 Maribor, Slovenia; 2. Igor Drstvenšek - Faculty of mechanical engineering, University of Maribor, Smetanova 17, SI-2000 Maribor

New Medical Technologies Workshop for Deep brain stimulation in patients with movement disorders

Dušan Flisar, MD - University Clinical Center Ljubljana, Neurology Clinic, Ljubljana, Slovenia

New Medical Technologies Workshop in Human-Robot Interface for a Powered Transfemoral Prosthesis based on Whole-Body Awareness

1. prof. Marko Munih, PhD - Laboratory of Robotics, Faculty of Electrical Engineering, University of Ljubljana, Trzaska 25, 1000 Ljubljana, Slovenia; 2. Luka Ambrožič - Laboratory of Robotics, Faculty of Electrical Engineering, University of Ljubljana, Trzaska 25, 1000 Ljubljana, Slovenia; 3. Maja Goršič - Laboratory of Robotics, Faculty of Electrical Engineering, University of Ljubljana, Trzaska 25, 1000 Ljubljana, Slovenia; 4. Prof. Dr. Roman Kamnik - Laboratory of Robotics, Faculty of Electrical Engineering, University of Ljubljana, Trzaska 25, 1000 Ljubljana, Slovenia

New medical technologies in rehabilitations robotics: experience from Slovenia

prof. Zlatko Matjačić, PhD - University rehabilitation institute, Republic of Slovenia, Slovenia

Promoting active aging by innovative technologies in developing and manufacturing of customized assistive products for elderly

1. ass. prof. Despina Mihaela Gherman MD PhD - The University of Medicine and Pharmacy, Romunia; 2. Ana- Maria Vasilescu Eng PhD - INCDTP – Division: Leather and Footwear Research Institute, Bucharest, Romania; 3. Corina Oancea MDPhD Lecturer - The University of Medicine and Pharmacy; 4. Doina Lâcrâmioara Tudorache MDPhD Lecturer - The University of Medicine and Pharmacy; 5. Maria- Magdalena Ciuvică MDPhD Professor - The University of Medicine and Pharmacy; 6. Roxana Mirică MDPhD Assistant Professor - The University of Medicine and Pharmacy
New Medical Technologies and Their Impact on Functional Ability. Subtitle:
3D Scanning and Simulation of Function

1. ass. prof. Andreja Rudolf, PhD - Institute of Engineering Materials and Design, Faculty of Mechanical Engineering, University of Maribor, Smetanova ulica 17, 2000 Maribor, Slovenia
2. Dr. Tomaž Brajlih - Production Engineering Institute, Faculty of Mechanical Engineering, University of Maribor, Smetanova ulica 17, 2000 Maribor, Slovenia
3. Prof. Dr. Igor Drstvenšek - Production Engineering Institute, Faculty of Mechanical Engineering, University of Maribor, Smetanova ulica 17, 2000 Maribor, Slovenia
4. Prof. Dr. Olivera Šauperl - Institute of Engineering Materials and Design, Faculty of Mechanical Engineering, University of Maribor, Smetanova ulica 17, 2000 Maribor, Slovenia

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Why learning and teaching in a workshop?

Olivera Masten Cuznar, MD MSc - Health Insurance Institute, Ljubljana, Slovenia

Do stigma and discrimination influence supervision decisions?

1. ass. prof. Vesna Švab, MD PhD, Slovenia
2. Bola Natek A. - MD, MSc
3. Domitrica Miloradović V. – MD
4. Ivić Alibegović M. – MD
5. Masten Cuznar O. - MD, Msc
6. Mrak J. - MD, Msc
7. Posega A. – MD
8. Scweiger E. - MD, MSc
9. Urank I. – MD
10. Valčić Ž. - MD, MSc

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Evidence based disability evaluation?

1. Wout de Boer, MD PhD - asim, Swiss Academy of Insurance Medicine, University Hospital Basel, Basel, Switzerland
2. Diane Brandt, MD PhD - NIH Boston, USA
3. Eva Kosta, MD - Pension Insurance institution of Slovenia
4. prof. Haije Wind, MD PhD - University of Amsterdam - Netherlands

Implementation of ICF in European social security

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Søren Brage, MD PhD - Directorate for Labour and Welfare, Oslo, Norway

Advantages of arthroscopic shoulder reconstruction for successful functional recovery after rotator cuff injuries
Poster Session

1. Davor Kakarigi, MD - Institute for Medical Assessment, Professional Rehabilitation and Employment of Disabled Persons, Zagreb, Croatia; 2. Miškulin M - Orthopaedic Institute, Clinical Hospital “Sveti Duh”, Zagreb, Croatia; 3. Uremović M - Institute for Medical Assessment, Professional Rehabilitation and Employment of Disabled Persons, Zagreb, Croatia

Organisation of Sector of Medical Assessors in The Pension and Disability Insurance Institute of Slovenia

1. Milošević Miloš, MD - The Pension and Invalidity Insurance Institute of Slovenia, Slovenia; 2. Dean Premik - The Pension and Invalidity Insurance Institute of Slovenia

Presentation of the University Rehabilitation Institute, Republic of Slovenia

1. Aleksandra Tabaj, PhD - University Rehabilitation Institute, Republic of Slovenia, Slovenia; 2. Črtomir Bitenc - University Rehabilitation Institute, Republic of Slovenia

Externalizing behavior problems in adolescence and sickness absence in adulthood


The importance of surgical treatment and physiotherapy of lesser arc wrist injuries in work ability maintenance

1. Davor Kakarigi, MD - Institute for Medical Assessment, Professional Rehabilitation and Employment of Disabled Persons, Zagreb, Croatia; 2. Nikolić T - Department of Hand Surgery, University Hospital of Traumatology, Zagreb, Croatia; 3. Pavić R - Department of Hand Surgery, University Hospital of Traumatology, Zagreb, Croatia; 4. Uremović M - Institute for Medical Assessment, Professional Rehabilitation and Employment of Disabled Persons, Zagreb, Croatia

Innovative model of social insurance doctor’s education.

1. Hart Grażyna, MD - Polish Social Insurance Institution (ZUS), Poland; 2. Lipowska Małgorzata - Polish Social Insurance Institution (ZUS); 3. Winciunas Piotr - Polish Social Insurance Institution (ZUS)

The need for ethical guidance in the conduct and reporting of independent medical evaluations

1. Pål Lindström, MD - Susano Rehab, Malmö, Sweden; 2. Busse JW - McMaster University, Toronto, Canada
Coaching as a method for rehabilitation; an intervention study in the county of Västmanland, Sweden

1. Tuula Wallsten, PhD - County council of Västmanland; 2. Ann-Sophie HAnsson - County council of Västmanland, Sweden

Postgraduate education in relation to safe work

1. Lovrenov Života, MD - Pension and Disability Insurance Institute of Slovenia, Slovenia; 2. Neža Žorž, MD - private practice, Slovenia

The dynamics of disability assessment in Slovenia with emphasis on neoplasms between 2003 and 2012

1. Sonja Modic-Sočan, MD - the pension and invalidity insurance institute Slovenia, Slovenia; 2. Života lovrenov - the pension and invalidity insurance institute Slovenia

Schizophrenia predictive genetic study, legislation, rehabilitation and social inclusion

1. Maria Marina Tanasie, PhD - Medical Expertise Service Dolj – Romania, Romania; 2. Veronica Mercan - Medical Expertise Service Dolj

Searching PubMed to identify studies on the prognosis of work disability

1. Jan L. Hoving, Dr. - Academic Medical Center in Amsterdam and Dutch Research Center for Insurance Medicine, The Netherlands; 2. Babs Faber - Academic Medical Center in Amsterdam and Dutch Research Center for Insurance Medicine, The Netherlands; 3. Frank van Dijk - Learning and Development Occupational Health, Leusden, The Netherlands; 4. Jos Verbeek - Finnish Institute of Occupational Health, Surveillance and Reviews Team, Kuopio, Finland; 5. Rob Kok - Lechner consult, medical advisors, Rotterdam, The Netherlands

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**What can we learn from narratives about work? Voices of persons with disabilities/chronic illnesses.**

*prof. Geert van Hove, PhD - Ghent University, Belgium/ VU Amsterdam, University Medical Center, the Netherlands*

This lecture takes a Disability Studies perspective. Disability Studies is an academic discipline that grew out of grassroots, rights-based politics in the 70ies and since then focused upon ways historical, social, cultural, political and economic framings of disability simultaneous came into play with other discourses of disability – impacting the degree of access and participation persons with disabilities have to all aspects of society. Following the Disability Studies slogan (of the disabled people’s movement) ‘Nothing about us without us’ (Charlton, 2002) in recent years narrative forms of inquiry became increasingly visible within Disability Studies.

In this lecture we will present narratives of persons with disabilities/chronic illnesses living in different countries about work. The analysis of these stories follows a cooperative research strategy.

While analysing the narratives we will make use of different frameworks:

- E.g. the critical stance base on the question ‘why many people with disabilities identify with the ‘liberal individualism’ upon which participation in the capitalist labour market is largely based
- E.g. the rights based perspective that states that participation in the regular labour market has to be seen as a basic human right for all citizens
- E.g. the comparative perspective where we try to link the different stories with the different contexts narrators live in.
- E.g. a phenomenological perspective through Interpretive Phenomenological Analysis. Within IPA researchers look for a balance between phenomenological description and interpretations that are based in the narratives as presented.
Are there ‘side effects’ of being sickness absent?

*prof. Kristina Alexanderson, PhD - Professor and Head of the Division of Insurance Medicine at the Karolinska Institutet, Stockholm, Sweden*

To sickness certify a patient is a common procedure in healthcare. Regarding other healthcare procedures we want to base them on scientific knowledge regarding pros and cons and discuss those with the patient, especially regarding possible side effects. What such knowledge do we have regarding being sickness absent, for different diagnoses, occupations and for different duration?

So far, most studies on sickness absence concern risk factors for becoming sickness absent. There are also some studies in physicians’ sickness certification practices and on factors affecting return to work. However, the number of studies on future situation among sickness absentees is very limited, but increasing. Aspects studied are e.g., consequences for health, morbidity, premature death, social isolation, life style factors, economy, and career. Scientifically, the challenge is to differentiate the consequences of the disease from being sickness absent due to that disease. Different types of studies as well as results from such studies will be presented.
More young disabled persons working: that is what it is all about!

prof. Haije Wind, MD PhD - University of Amsterdam, Netherlands

In the Netherlands claims for disability benefit among young handicapped persons have increased and still increase. Under current legislation many young handicapped persons receive a disability benefit and get support to find work that fits with their capacities. However, the labelling as disabled appeared to be an obstacle towards participation in work for young handicapped persons. To overcome this obstacle, there have been a number of adjustments in the legislation, leading to more emphasis on activation and work participation. Up till now these measures were not very effective.

The maxim nowadays is that ‘who can work, should work’ and we are on the threshold of again a radical change in legislation for this group of young handicapped persons. For those young handicapped persons that do not have any abilities to participate in work, the new legislation has no impact. They keep their right to a disability benefit. For all others the medical focus shifts from assessing earning capacity towards assessing work abilities. This has consequences for the assessment procedure that shifts from the right to benefit towards the right to work. This puts emphasis on other relevant work-related aspects, such as person characteristics and environmental context. This is where the ICF (International Classification of Functioning, Disability and Health) comes in. The change in assessment of functional abilities of young handicapped persons in the Netherlands is supported by the application of the ICF in the disability assessment procedure. This is in line with the bio-psycho-social model that is nowadays leading in the world of disability assessment. Insurance physicians should be able to describe impairments in terms of limitations in activities. This requires new competencies and skills of insurance physicians and therefore has consequences for the training of insurance physicians. It could even be discussed whether or not it would be better to involve other disciplines than IP’s in these assessments. Already labour experts have an important role in the new procedure of disability assessments of young handicapped persons. Another important aspect of the new procedure is the reliability of assessments on which the disability benefit is based. However, the big question is: what does this change of legislation mean for the young handicapped persons? Will they benefit from this change in assessment procedure? Will this change lead to more young handicapped persons finding the way to work participation? Will this change lead to better ‘health’ for young handicapped persons? These are the key questions that need to be asked when evaluating this new assessment procedure, because that is what it is all about: more young handicapped persons working!
Vocational Considerations after Amputations

prof. Helena Burger, MD PhD - URI Soča, University of Ljubljana, Faculty of Medicine, Slovenia

Amputation itself is a change in body structure. It has a huge influence on many activities, participation (including the ability to work), and also on quality of life. The ultimate objective of rehabilitation is to allow persons after amputation to integrate in the community as independent and productive members, which also means to allow them to work. Rehabilitation outcome is successful when a person returns to active employment, but may have to change jobs. The percentages of persons who successfully returned to work (RTW) differ from study to study and whereas persons have lower or upper limb amputation. There are several factors that influence return to work. According to the International Classification of Functioning, Disability and Health they can be divided into health condition, body functions and structures, activities, environmental and personal factors.

For health condition most authors agree that co-morbidities, level of disability, reason for amputation (injury, specially work related injury versus other reasons), other major injuries during the accident that causes amputation, problems with residual and contralateral limb, phantom and stump pain are negative predictors for RTW.

There are no studies on influence of body functions, such as muscle strength, range of motion (ROM), balance and other on problems at work or RTW. Factors from body structure part are amputation level, stump and skin condition.

None of the authors really studied the influence of activities and participation on RTW. Activities such as walking, climbing stairs, using public transportation and driving are important for going to/from work and also for several working tasks, and can therefore – when impeded – be a reason for reduced productivity.

Environmental factors influencing return to work are prosthesis, climate, geography, type of work, support, transportation services, legal and social security services and health services, systems and policies.

Personal factors influencing return to work are gender, age, education, motivation, person’s attitude about RTW, being white, being a non-smoker, higher self-efficacy, no litigation, and unemployment in the general population.

Persons after amputation, both of lower and upper limbs, have problems with RTW and at work. Several factors, not all independent, influence RTW after amputation. However, RTW may increase and problems at work decrease if the affected persons are included into comprehensive interdisciplinary rehabilitation that includes vocational counselling.
Social Security and Return to Work Efforts in Four European Countries

1. prof. Oskar Mittag, PhD, Institute for Quality Management and Social Medicine, University Medical Center of Freiburg, Germany; 2. Hanna Kampling; 3. Tomaž Tomažič; 4. Christina Reese; 5. Felix Welti

Over the past 20 years most European countries have taken measures in order to reduce inflow rates into disability benefit schemes, and foster return to work (RTW). We study the social security systems of 4 countries (Finland, Germany, Netherlands and Slovenia), and compare them as to disability benefits and vocational reintegration efforts (e.g. rehabilitation). The Netherlands have successfully reduced the formerly high percentage of people receiving disability benefits by a number of legislative reforms. Essential part of these reforms is a clearly defined sequence of actions during the first two years of disability as well as strong incentives for vocational reintegration. In comparison, employers as well as employees in Germany face fewer (financial) incentives for RTW. In the Netherlands, occupational and insurance physicians play an important role in the assessment of incapacity for work. In Finland, occupational health care and (vocational) rehabilitation are considered very important.
The role of the (social) insurance physician in vocational rehabilitation; An international survey

ass. prof. Corina Oancea, MD PhD - Lecturer at the Discipline of Medical Assessment and Work Capacity Rehabilitation of the Carol Davila University of Medicine and Pharmacy Bucharest, Romania

Return to work of people with health conditions is an item of major interest in many European countries, considering the positive implications both on social security schemes and on the health and wellbeing of the workers. In different countries many different procedures are in place, involving different types of professionals and much research is going on about what interventions for return to work are effective in which cases. One group of professionals involved in sick leave and return to work, are physicians who work for, or in, social security or private insurance. Their role is typically to certify sick leave and assess work capacity but some are also active in promotion of return to work. It is unknown what their involvement is and how far it goes, beyond the assessment of capacity for work.

It is relevant to know this as it helps us understand the process of promotion of return to work, to identify the best practices, to understand the qualifications that physicians need and to support the identity of insurance physicians as not only judging but also caring.

This presentation aims to operationalize the concept of promoting return to work into professional activities, as they are carried out in the context of the great diversity of the socio-economic and legal environments across European countries. We drafted and piloted a questionnaire based on these functions. We carry out a survey with this questionnaire and interview respondents in countries where the roles of the physicians are well developed. The data will be collected and analysed to illustrate the extent of the insurance physicians’ efforts to promote return-to-work.

The degree to which the findings can be used to draw up valuable recommendations, based on the opinion of international experts, reflecting the physicians’ perspective, beyond the organization and the tradition of different social security systems, will be discussed.
Return to work: where do we stand with the evidence?

prof. Regina Kunz, MSc - Basel University, Switzerland

Promoting return to work of people with impaired health is a core task in insurance medicine and in social insurance in general. Very many ideas on how to do it best have been developed which inspired interventions that are now in place. In modern times, one would expect that return to work promotion would be based on solid evidence. Indeed, much research has been carried out to determine the best ways to promote return to work. Nevertheless, the best approaches have not yet been established. What are the challenges in practice and in research? What difficulties prevent researchers to produce scientific results that everyone seems to be waiting for? Strategies in practice and research emphasise the individual, the work situation and the process and the institutional environment. In this presentation, I will focus on the scientific results and scientific difficulties at the level of the interventions and the indication for the interventions: the assessments of work capacity. I will sketch ways to improve the evidence in this important area.
Enforced cooperation for patients – implications for Social Rights

prof. dr. iur. Kurt Pärli, Professor for Private Social Law at the University of Basel, Switzerland

In this presentation it is argued that the shift from Welfare to Workfare and the overall trend to social policies and workplace activities with a focus on activation and integration in the labour market should be in line with major constitutional values. Reform of Sickness Benefit Acts and legal practice towards a more active role for the sick employee leads to much tighter control leaving less room for autonomy. One could prove this thesis with the Swiss case law of the Federal Court regarding somatoform disorder and other diseases that are not accepted as relevant causes for social benefits. On the other hand, more and more treatments as for example psychiatric therapy or even surgical interventions are demanded from patients as part of their cooperation under Social Security Laws all over Europe. If behaviour control and sanctions are rising, it is not a surprise that employees tend to avoid sick leave and even more, go to work despite sickness. This relatively new phenomenon is labelled as “presenteeism”. Offensive and repressive activation of sick employees leads to crucial human rights questions like the right to privacy, the Right for freedom of choice and the nondiscrimination rule. Policies for the activation of sick employees should be reconstructed under a Human Rights perspective. Constitutional constraints should hamper the enactment of too repressive activation for sick employees and other sick persons.
Cancer and work

prof. Angela de Boer, PhD - University of Amsterdam, Netherlands

In Europe, 3.2 million new cases of cancer are diagnosed each year with every 1 in 4 people ever diagnosed with cancer. The prevalence of cancer survivors of working age is expected to grow in European countries because of an ageing population, higher retirement age and continued improvements in treatment of many forms of cancer.

Almost half of all cancer survivors are younger than 65 years. Most cancer survivors want to resume work after treatment but not all survivors succeed to do so and their unemployment is 40% higher than in people who never had cancer.

For this reason, innovative interventions that mitigate the economic impact of surviving cancer and improve the quality of life of survivors are urgently required. In the past two decades, several interventions have been developed with approaches that were either psychological (e.g. counselling), physical (e.g. physical exercise, clinical interventions), vocational (e.g. job placement services, vocational rehabilitation), occupational (e.g. educating employers, implementation of work adjustments), and/or legislative (e.g. anti-discrimination acts) in their emphasis.

Multidisciplinary interventions have been proved to be most effective in return to work and work retention of cancer survivors. However, research has also shown that collaboration between clinical specialists in the curative centres and professionals working in insurance or occupational medicine, can be challenging. Positive results can nevertheless be achieved when barriers for collaboration are removed.

There is a growing international awareness of the work situation of cancer survivors. International networks uniting professionals, researchers, employers and stakeholders concentrate on disseminating research knowledge and best practice. Collaboration between countries on the development of evidence-based, validated interventions for work participation of cancer survivors to prevent unemployment will highly benefit the lives of millions of cancer patients in Europe and beyond.
Mobile teledermoscopy for skin cancer screening targeting agricultural population: an experience in France on 289 patients

prof. Anne-Claude Crémieux, PhD, France

Introduction: The incidence of melanoma and non-melanoma skin cancer has reached epidemic proportions in white population. With 80,000 new cases per year, skin cancer is the most frequent localization of cancer in France and the trend is still rising. Between 1980 and 2005, the incidence of melanoma, has tripled. In 2012, 11,176 new cases were diagnosed and melanoma was responsible of 1,672 deaths. Agricultural populations are exposed to ultraviolet radiation during their professional activities. Incidence of non-melanoma and melanoma skin cancer is significantly increased in this population compared to the general population.

In 2014 the organization in charge of health insurance for agriculture (Mutualité Sociale Agricole, MSA) offered to its customers living in rural area with reduced access to dermatologist, to participate to a one-day teledermoscopy screening event, organized jointly with the Union of dermatologists (Syndicat national des dermato-vénérologues, SNDV) for the « national skin cancer screening day ».

The aim of this work was to assess the feasibility of a mobile teledermoscopy triage of a large number of agricultural workers by occupational physicians and medical officers.

Methods: Fifteen teledermoscopic screening centers were located in different area in France. Those areas were selected for their low density of dermatologists. Patients were attended by appointment by an occupational physician or a medical officer working for the MSA, previously trained by a oneday course on skin tumors by dermatologists of the SNDV. Those volunteers’ physicians were also taught how to acquire both clinical and dermoscopic images. Individuals older than 18 years, affiliated to the MSA, working in agriculture and living in rural area near a teledermoscopic screening centers were invited by e-mail or letter to participate to this skin cancer screening.

Skin lesions were screened through the examination of the entire body. In case of suspicious skin lesions, digital images of these lesions were performed with a mobile cellular phone and dermoscopic pictures were obtained. Images correlated by age sex and location of the lesion (clinical history was optional) were then transferred for teleconsultation to the dermatologist platform located in the central institution in Paris. Three dermatologists with high experience in dermoscopic were simultaneously present at the platform all the day for diagnosis and decision-making.

Images were reviewed by one or two of them, then the lesions were grouped into four management categories: (i) No further treatment or follow up required (ii) Follow up at 12 months interval (iii) Patient was advice to take an appointment with dermatologist of his choice with no emergency (ivii) Referral to a local dermatologist for rapid face to face examination or excision. In that case the appointment was organized by the MSA physician.

Results: On the 289 patients (67% men) who underwent skin cancer screening, 56% were farm owners, 24% agricultural workers and 16% retired; the median age was 54 years-old.
For 199 patients (69%), one or more suspicious lesions were identified and generated 412 pictures. Management recommendations by dermatologists present on the platform were as followed:

- 105 patients (53%): no follow up required
- 16 patients (8%) with one or more lesions need to be followed at 12 months interval
- 61 patients (31%) referred to a dermatologist without emergency
- 17 patients referred by the MSA physician to a local dermatologist for a rapid examination including 12 suspicion of melanoma

On these 12 patients, 11 were examined by the local dermatologist within 10 days and biopsy was performed in 9. Melanoma was confirmed by histopathology in one patient. For the 8 other lesions, atypical nevi or actinic keratosis were the main final diagnoses.

Conclusion: Mobile teledermoscopy cancer screening targeting agricultural population and performed by occupational physicians and medical officers was feasible and has potential clinical and economic benefits as it diagnosed within 10 days 1/289 patient with melanoma (versus 10 per 100,000 inhabitants in the general French population) and allowed to avoid a face to face examination by a dermatologist in in 53% of cases.
Possibilities of returning to work in patients with neurological impairments - reality or illusion? A viewpoint of a rehabilitation medicine physician

prof. Breda Jesenšek Papež, MD PhD - Institute of Physical and Rehabilitation Medicine, UKC Maribor, Slovenia

Rehabilitation is a line of profession which, by definition, treats a patient as a whole, comprising also their work capacity and return to work. The rehabilitation of patients with neurological impairments is a dynamic process, which may last a few weeks, months, years or even their entire life. Its goal is to restore patients’ independent functioning and social reintegration, all within the limits set by the degree of their impairment. Neurological rehabilitation spans a wide range, comprising patients with various neurological impairments. The impairment score ranges from mild impairments to severe impairments of central and peripheral nervous system and target organs. There is a wide variation in clinical features, the outcome of rehabilitation, however, depends on the cause of impairment, the extent of impairment, timely treatment, complications, accompanying diseases and a patient’s age.

Comorbidity has a decisive effect on the planning and outcome of rehabilitation. A rehabilitation team includes various experts, depending on the specific needs of a patient. The basis of the rehabilitation of patients with neurological impairments is represented by the complexity of treatment and team work. In the past early rehabilitation was primarily aimed at physical and psychological effects of neurological impairment. A modern approach primarily focuses on one’s functioning and a biopsychosocial concept of impairments, which also takes into consideration environmental and personal factors (ICF classification). Within the framework of interdisciplinary treatment, occupational rehabilitation and early intervention of therapy programs towardsthe returning of a patient to work are thus becoming increasingly relevant.

The presentation is going to contain organisational levels, staff benchmarks and clinical practice in the implementation of the rehabilitation in patients with neurological impairments in Slovenia. We are going to point out the specificity in neurorehabilitation as well as objective and subjective obstacles regarding patients’ return to work. The problems regarding the planning and implementation of programs, including accountability for achieving rehabilitation goals, are going to be pointed out, on an individual as well as social level. We are going to stress the significance of collaboration with funding institutions and a general practitioner. The lecture is going to be supported by practical examples and the current situation compared with evidence based models and good practice examples.
PRADO- a home-based-program for patients hospitalized with heart failure

Prof. Luc Barret, PhD - CnamTS, France

Cardiac failure leads to frequent hospitalisations, being the nr 1 cause of hospitalisation of people over 65. The personal and financial loss of this is considerable, representing 1 to 2% of cost of health care in industrialised countries. With patient education, coaching and home surveillance many hospitalisations can be avoided. Based on these principles, programs have realised a reduction of rehospitalisations of 25 to 30%.

Therefore, the French health care insurance (CNAMTS) cooperated with the French cardiology society (Société française de cardiologie) to create a programme to support the return to home for patients hospitalized for heart failure, (PRogramme d'Accompagnement du retour à DOMicile des patients hospitalisés, PRADO). This programme aims at reducing the number of rehospitalisations by organising the return to home, optimising the medical care and organising home surveillance by a specialised nurse.

This programme was started by mid-2013 in 10 pilot hospitals. It is being rolled out to all French hospitals until 2017. On January 1st of 2015 some 1000 patients were included, in 27 hospitals.

Evaluation is foreseen on the process and on results (mortality, rehospitalisations, medico-economic evaluation). By the end of 2015 the first results will be available.

Health care insurance strives to enrich its services with this programme, which fits in France’s national health strategy.
The Importance of Assessing the Functionality of Patients with Shoulder Joint Disorders in Rehabilitation Medicine

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Issue

The shoulder, in a broader sense, is a complex system of true and false joints which enable the functionality of the upper extremity and hand. The most common shoulder pathologies are rotator cuff impairments with shoulder impingements and instabilities of the glenohumeral joints. Based on the International Classification of Functioning, Disability and Health (ICF) we have at least four categories of assessment in rehabilitation treatment (pain, range-of-motion, muscular strength and the ability to perform activities), either separately or combined, on different scales.

Description

These are either disease- or population specific and can be used for numerous pathologies or are region specific (upper extremity). Some frequently used scales are self-assessing (Shoulder Pain and Disability Index (SPADI) and Disability of Arm, Shoulder and Hand (DASH)). Others also include objective measurements, which are insufficiently standardised and susceptible to subjective influences (the problem of standardisation and precision of measuring range-of-motion and muscular strength) (Constant-Murley and UCLA scales). In rehabilitation medicine the complete treatment of the individual is essential, therefore the results of these scales need to be linked to the results of the general health status scales, of which the Short Form Health Survey SF-36 is the most notable. The psychometric properties of these scales are not intrinsic, but subject to change based on the manner of usage and population study.

Results

The systematic articles on psychometric properties (validity, reliability, specificity, sensitivity, responsiveness and other) of the most used scales confirm their clinical and researchable usefulness, however they stress the need for standardisation of execution and urge caution at interpreting the results.

Lessons

The mutual reliability of scales is small, therefore the success rate of a rehabilitation treatment relies on the used scale(s).
Vocational rehabilitation best practices evaluation – qualitative study

1. Aleksandra Tabaj, PhD - University Rehabilitation Institute, Slovenia; 2. Črtomir Bitenc - University Rehabilitation Institute, Republic of Slovenia

Issue
Vocational rehabilitation evaluation.

Description
Retrospective qualitative cohort study 2010-2014: “Best practices evaluation in vocational rehabilitation”, population 5,321 persons, was carried out in 2014 in Slovenia. Information was gathered through Slovenian vocational rehabilitation network specific questionnaire. In depth interviews analysed information from vocational rehabilitation providers, rehabilitees, rehabilitation counsellors at Employment Service in Slovenia and employers. We collected 11 best practices. Criteria: outcomes, changes in characteristics of a person, advancements in quality of life and statements of a person and employers.

Results
Almost all studied cases were connected with the employment outcome (10), which was successful regardless of barriers of disability. Mainly (7) they were in supported employment. Positive changes in education, work experience, social network, and support were found out. Of highest importance was high motivation and successful social inclusion. In many times motivation was the main factor.

Lessons
Employment counsellors exposed that the regular contacts and monitoring the rehabilitees and professional workers is the key factor for successful outcomes. In practice this means regular month contacts. In best practices it was observed that the key feature was also longer vocational processes, which enabled cooperation with stakeholders. The quality of contacts between Employment service and providers enabled trust and innovative solutions with career orientation and active labour market policy measures. Employers as the main reasons for success exposed positive attitudes, potentials, ability to learn, talents, professional attitudes and concerns of rehabilitees. It was very interesting that that spoke of good impact on the working culture, when they trained and employed person with disability. Rehabilitees exposed good information of the process of vocational rehabilitation at the start as one of the major concerns, which help them in cases that they were afraid of engagement. Training experience gave them better view on their abilities, gathering new knowledge, with constant support of professional workers.
Frailty condition and disability benefits’ attribution: an innovative path to improve global take-over of the frail patient

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Background
To improve the global take-over of the frail patients in Long Term Care (LTC) requesting Integrated Home Care (IHC), we have experimented the usefulness of Multi-Dimensional Evaluation of Needs (MDE-N), made by a multiprofessional team (medical doctors, nurses, social workers) as a tool for assessment of disability’s allowance.

Methods
Observational Study: Mar 2013 - Feb 2015; 2.656 subjects admitted to IHC: 1.250 (47%) excluded because already with assistance allowance; 1.406 (53%) as potential recipients of MDE-N. Of these, 901 (64%) did not get the MDE-N (Group 1) for several reasons; 505 (35%) underwent MDE-N (Group 2). Evaluation tools used: Suite InterRAI-Home Care, Personal Health Profile Key (PHP); Cognitive Performance Scale (CPS); Mini Mental State Examination (MMSE); Depression Rating Scale (DRS); Rating Scale of Physical Functions; Hierarchical Ladder of Autonomy (ADL); End Stage Disease and Signs and Symptoms (CHESS); Rating Scale of Pain; Score of Methods for Assigning Priority Levels (Maple).

Results
Assistance allowance was assigned to 454 of 505 patients (90%, Group2) in a mean of 74 days versus the mean of 160 days of the previous path.

Conclusions
In our observation at ASL Lodi, the MDE-N’s use is, in addition to an effective tool to recognize the real needs of frail patients, a reliable reference to assess requirements for disability benefits provided by National Social Security Institute (INPS). This innovative path, in full adherence with rules, has: simplified the obligations for the patient and his family; contracted benefits’ dispensing time; improved the allocation of ASL and INPS resources.
Work disability in Chronic Heart Failure is associated with psychological and physical health status-one year study from Kosovo

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Background
The main clinical symptoms in Chronic Heart Failure (CHF) affect quality of life (QoL) through their limiting effect physical functioning, psychological problems and social limitations. Patients and family members, health care providers, employers, health insurers, pension administration department have a need to fully understand and measure the course and prognosis of CHF disease. CHF also may affect working age population and can lead to permanent retirement.

To explore the prevalence of Work Disability (WD) in CHF outpatients, and to identify sociodemographic and biopsychological factors that are associated with HRQoL and WD

Methods
In this study 104 outpatients with CHF, NYHA class I-IV, were cross sectionally studied. The study included patients age 18≤65, of both gender, with echocardiography assessed Left ventricular ejection fraction (LVEF) ≤60%. Assessment included sociodemographic variables and health status measures (SF-36 questionnaire, HAM-A, HAM-D tools, risk factors for cardiovascular disease). Patients receiving a permanent, national WD pension corresponding to <40% of LVEF, were defined as work disabled. We examined group differences with regard to anxiety and depression symptoms manifestations, HRQoL and disease characteristics.

Results
Among 104 outpatients with CHF, 78.8% female and 21.2% male, mean age 38.69±4.38 at baseline, the prevalence of permanent WD was 54%. The prevalence of anxiety and depression symptoms in WD sample was 57.7% (11.7% were presented mild anxiety/depression, 66.7% moderate anxiety/depression and 21.7% of them presented severe anxiety/depression symptoms). Age, female gender, obesity and disease duration were associated with mental health worsening, male gender, tobacco using, and HTA were associated with vitality, while the age was related to social functioning.

Conclusions
CHF disease may often affect working age population and can rapidly lead to severe physical and mental disability and retirement, through psychological reaction to disease, HRQoL decline and incapability of recovery to return at work, as outcome.
Predictive factors of fatigue and work ability in cancer survivors beyond two years of sick leave

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Background

Employees with a history of cancer may be at risk for job loss and/or work disability, due to long-term side effects. Fatigue is a very common side-effect in cancer survivors and limitations in functional abilities may have a negative impact on work ability. There is a lack of systematic research on fatigue and work ability in cancer survivors beyond two years of sick leave. The aim of this study is to identify prognostic factors related to fatigue and work ability in cancer survivors on long-term sick leave.

Methods

In this longitudinal cohort study, cancer survivors (18-64 years of age) were included who had a first diagnosis of cancer, applied for a work disability benefit, and approached a 24-month sick leave term. Both data of the Dutch Social Security Agency and questionnaire data were used. Univariate and multivariate linear regression analyses were applied to identify predictors.

Results

Mean age of the survivors (n=336) was 51.2 years (SD 7.4 years) and 32% was men. An increase in fatigue was associated with being divorced or widowed (B=-2.82), having more physical complaints (B=-0.34), having more depressive symptoms (B=-0.29), and working in health care (B=-2.31). A decrease in fatigue was associated with having received chemotherapy (B=2.20) and a better score on fatigue at baseline (B=0.31). An increase in work ability was associated with having received chemotherapy (B=0.80), and with a higher score on both global health (B=0.02) and work ability at baseline (B=0.43). A decrease in work ability was associated with being principal wage earner (B=-0.64), insecurity related to being free of

Continued on next page...
disease ($B=-0.48$), having more physical complaints ($B=-0.05$) and wage loss ≥80% ($B=-0.61$).

**Conclusions**

By timely addressing the identified factors, work participation of cancer survivors on long-term sick leave may be enhanced.
Predicting return to work among sickness certified patients in general practice. Properties of two assessment tools

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Abstract

Aim: The purpose was to analyse the properties of two models for the assessment of return to work after sickness certification. Study Population: All subjects aged 18 to 63 years, sickness certified at a Primary Health Care Centre in Sweden during 8 months (n=943), were followed up for three years. Methods: Baseline information included age, sex, occupational status, sickness certification diagnosis, full-time or part-time sick leave, and sick leave days during the past year. Information on first and last day of each sick spell during follow up was obtained from the National Social Insurance database. In Model 1 all subjects were, based on baseline variables (and intuition), classified into a high (n=447) and a low risk group (n=496) regarding the risk of not returning to work when the present certificate expired. In Model 1 the Cox’s analysis included time for return to work as dependent variables and risk group assignment as the independent variable, while in Model 2 the baseline variables were entered as independent variables. Results: The concordance between actual return to work and return to work predicted by the analysis model was 76.0%, 74.0%, and 73.2% during the first 28, 90 and 180 days, respectively, in Model 1, and approximately 10% units higher in Model 2. Based on Model 2 three nomograms were constructed providing detailed information on the probability of return to work. Conclusion: Model 2 had a higher precision and gave more detailed information than Model 1, in spite of its intuitive component.
Gap between decrease of work ability and increase of work place demands

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Background
Due to restructuring and globalization, work and its content has been changed. The work intensity has increased and the nature of work has changed. Workers have to adapt to new psychosocial and organizational environment all the time.

Workers have to stay in the world of work for more than forty years. Their working abilities decrease with age, but demands of work increase. The gap between workers’ abilities and work place demands is greater and greater.

Workers are not able to manage this gap. The most vulnerable group of workers are those with poor mental health.

The main research problem
Analysis of functioning of workers, who are not able to match demands of work and are in the process of working abilities estimations. Those workers are seeking for sick leave or earlier retirement due to decrease of their well-being.

Methods
We analysed results of their manifested psychosocial functions. Sample Workers with the main diagnosis from F43 (reaction on stress and adaptation malfunctioning); N=63 (8% of all workers included in the process of work ability evaluation).

Procedure
Complex psychological evaluation including psychodiagnostic test, interview and evaluation.

Results
Analysed workers have problems in adaptation, majority of them (76%) are not able to perform their work without problem. Also all other limitations and problems in the process of adaptation to work place are identified.

Conclusions
Decrease of work ability is very often manifested in the loss of employment. Older workers are not able to adapt to new situations. Especially workers with lower basic adaptation abilities are the first victims of...
new work place demands.
They do not have rights from pension system, but the gap between their abilities and work place demands in every day greater and they are more and more often not able to keep the employment or to get a new job.
The use of a checklist with factors relevant for work ability assessments of employees on long-term sick leave in daily practice

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Background

Research has shown that non-medical factors are involved in the maintenance of long-term sick leave (LTSL). The aim of this study is to contribute to the improvement of work ability assessments of employees on LTSL by insurance physicians (IPs).

Methods

A checklist of factors that hinder or promote return to work (RTW) was developed based on literature, the views of workers on LTSL, vocational rehabilitation professionals and IPs. Twenty-five IPs were asked to assess, identify and report the factors influencing RTW of employees on LTSL using the checklist during fifteen work ability assessments in daily practice. Primary outcome measure was the percentage IPs that used the checklist in at least twelve of fifteen work ability assessments. The use of the checklist was defined as the assessment of at least one of nine factors from the checklist. A frequency analysis was performed. The secondary outcome measures were the quality of the official work ability assessment records and the percentages work incapacity benefits. The quality of the work ability assessment records was measured by two independent researchers using specific performance indicators.

Results

A total of twenty-five IPs participated. Thirteen participants were male, their ages varied from 27 to 63 years and they had working experience between 1 and 32 years. Preliminary analysis showed that more than 90% of the IPs used the checklist in at least twelve of fifteen work ability assessments and assessed at least one factor. A preliminary analysis of the official work ability assessment records indicated that the quality of the assessments records improved.

Conclusions

Preliminary data showed that IPs using the checklist are able to adequately assess barriers and facilitators for RTW. The use of the checklist should be considered when performing work ability assessments of employees on LTSL to improve the quality of the work ability assessments and enhance RTW.
Functional Assessment Instrument to Determine Capability to Work


Background

We developed a standardized functional assessment instrument called the, Functional Assessment Battery (FAB), for the U. S. Social Security Administration (SSA)’s Work Disability Program to improve the efficiency and accuracy of the evaluation of a claimant’s ability to engage in substantial gainful employment.

Methods

To develop the FAB, we used the World Health Organization (WHO) International Classification of Functioning, Disability and Health as an initial content model, consulted with experts, reviewed literature, and conducted cognitive evaluations of each candidate functional item. To calibrate items for the FAB, we collected data on 403 functional questions from 3,190 claimants to the SSA work disability program and 1,949 working age US adults. We divided the data into physical and non-physical domains and conducted exploratory and confirmatory factor analyses to explore the underlying data structure. Analyses were calculated on the claimant sample and replicated on the normative adult sample. The “final” solution balanced parsimony, statistical fit, and content coverage.

Results

The 243 FAB items are organized into 7 distinct domains: Basic Mobility (41 items), Upper Body Function (53 items), Transportation (19 items), Cognition-Communication (65 items), Self-Efficacy (43 items), Interpersonal Interactions (43 items), and Mood & Emotional Functioning (43 items). Fit statistics confirmed that these claimant data fit the content model and this structure was replicated in a normative sample of adults living in the US.

Conclusions

Ongoing Item Response Theory (IRT) analyses will create unidimensional scales that measure each functional domain. FAB scales can be administered using computerized adaptive testing (CAT) to create functional profiles of claimants to the SSA work disability program. CAT methodology uses a computer interface that is tailored to the unique ability level of each claimant, allowing for fewer items to be administered, while providing an assessment that is accurate, precise, comprehensive, and efficient.
Test-Retest Reliability of Work Disability Functional Assessment Battery (WD-FAB)


Background

The Work Disability Functional Assessment Battery (WD-FAB) was developed to assess work related function for the US Social Security Administration’s (SSA) Work Disability Program. The WD-FAB consists of computer adaptive testing (CAT) based scales that assess Behavioral Health and Physical Function. The aim of this study was to examine the test-retest reliability of the WD-FAB Physical Function and Behavioral Health CATs.

Methods

The WD-FAB scales were administered twice, 7-10 days, apart to a sample of 376 working age US adults and 316 adults with self-reported work-disability. Intraclass correlation coefficients (ICC) were calculated to measure the consistency of the scale scores between administrations. To measure scale precision and sensitivity, standard error of measurement (SEM) and minimal detectable change (MDC90) were also calculated.

Results

ICCs for the Physical Function scales ranged from 0.76-0.89 in the working age adult sample and 0.77-0.86 in the work disability sample with no significant difference in reliability between the two samples. ICCs for the Behavioral Health function scales in the working age adult sample ranged from 0.66- 0.70 and 0.77-0.80 in the work disability sample. Scores were more reliable in the work disability sample in 3 of 4 scales. In the Physical Function scales, the MDC90 ranged from 7.58 to 9.92 in the working age adult sample and 8.97-10.62 in the work disability sample. The MDC90 for the Behavioral Health scales ranged from 14.66-16.27 in the working age adult sample and 12.29-13.69 in the sample with work disability.

Conclusions

The results show that the WD-FAB displayed acceptable test-retest reliability in both samples, which is critical in assessing the function of claimants in the SSA Work Disability program.
Global functioning of patients with different diagnoses

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Background
The Psychiatric emergency Unit (PEU) was established at University Psychiatric Hospital Ljubljana in 2004 as an outpatient unit. After examination and initial treatment patients are canalised to further in- or outpatient treatment elsewhere. We hypothesized that global functioning of patients examined and treated at PEU was different in different diagnostic groups. The data on functionig was colected at presentation in PEU.

Methods
Data from medical documentation about the patient’s age, gender, diagnosis and her/his overall functioning were gathered. Functionig of 735 patients was evaluated with Clinical Global Impressions Scale (CGI) and functioning of 618 patients was evaluated with Global Assessment Scale (GAS). Patients were assigned to different diagnostic groups according to their main clinical diagnosis after examination in PEU, comorbidities were diagnosed. We compared global functioning of patients according to diagnostic groups (F 00-09, F 10-19, F 20-29, F 30-39, F 40-49, F 90-99).

Results
Average scores for all evaluated patients were CGI=3,53 (1=not ill, 7=among the most extremely ill patients) and GAS=61,76 (1-10=extremely impaired, 91-100=doing very well). Statistically important differences are marked after scores. Impairment of global functoning was the heaviest in F20-29 (CGI=5,05, F00-09, 10-19, 30-39, 40-49, 90-98 and 99; GAS=47,57, F10-19, 30-39, 40-49, 90-98 and 99) and F00-09 (CGI=3,98, F20-29, 40-49, 90-98 and 99; GAS=49,03, F10-19, 30-39,40-49, 90-98 and 99) groups. Functioning was less affected in diagnostic groops F 30-39 (CGI=3,80, F 30-39, 40-49, 90-98 and 99; GAS=58,70, F00-09, 20-29, 40-49, 90-98 and 99) and F10-19 (CGI=3,39, F20-29; GAS=62,18, F00-09 and 20-29). Not surprisingly the best functioning were patients from groups F 40-49 (CGI=3,06, F00-09, 20-29 and 30-39; GAS=67,26, F00-09, 20-29 and 30-39; also the biggest group), F90-98 and F99 (CGI=2,79, F00-09, 20-29 and 30-39; GAS=70,02, F00-09, 20-29 and 30-39).

Conclusions
Present data confirms, that global functionig is associated with mental disorder, indicating possible usufulnes in working capacyty evaluation.
Adoption of functional interviewing in disability evaluation

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Background
Modern thinking about disability evaluation in social insurance reveals the need for a functional approach, but guidelines and training functional assessment are not yet fully established. Within a multi-centre study (RELY-1), we trained psychiatrists in 3x3 hours to enquire actively about work capacity, addressing four recommended topics at the beginning of their assessment: description of (1) previous job and (2) activities, (3) statement on capacity to work, (4) substantiated by means of current work-related medical complaints and symptoms. We evaluated whether the psychiatrists adopted the training.

Methods
Thirty real-life video-taped interviews were conducted by 12 trained psychiatrists with claimants intended for disability evaluation. After verbatim transcription, we performed a content analysis by means of a category system a priori aligned to our recommended topics. Inter-rater reliability between three coders (two coders per interview) was almost perfect (Krippendorff’s Alpha = 0.84) and total agreement was achieved within a consensus group. We analysed frequency distribution (minimal criterion: addressed at least once) for recommended topics.

Results
In the majority of the 30 interviews, claimants provided a description of previous job including information about education and profession (25/30), past employers (25/30) and employment durations (27/30), whereas previous activities were addressed in all 30 interviews. A statement on capacity to work was obtained in about half of the interviews only and that with regard to previous activities (17/30), alternative activities (10/30) and conditions necessary for successful exercise (17/30). Medium-high frequencies were indexed for information about work-related medical complaints (23/30), aggravating and attenuating circumstances (16/30) and emotional-cognitive importance and handling (20/30).

Continued on next page...
Conclusions

Despite preceding training in functional interviewing, psychiatrists did not enquire significant information about work capacity in half of their interviews. We conclude that functional interviewing needs to be trained more extensively.
Disability evaluation - Czech system of assessment

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Issue

The presentation is dedicated to the Czech system of evaluation and decisions for purposes of disability pension. The authors present the medical rules of the assessment, statistic data of the first assessment and controls of disability evaluation in the last four years, surveillance results of disability assessment from the year 1993 to 2014 and the most frequent disability causes in different group of age.

Description

The present system of assessment disability is based on evaluation of decreasing of the working ability. It is assessed in the percentage. Disability has three degrees. This system based on percentage was established in 1996, but until 2010 there was no three degrees of disability, but only the partial and full disability. In the system before 1996 there was no evaluation based on the percentage of working ability, but disability assessment was based on the evaluation of ability to work commonly. The evaluation was based only on the methodology.

Results

During the period from 2010 to 2014 in the first assessment has second and third degree of disability moderately decreased (second from 16% to 12%, third from 29% to 26%), whereas the first degree and declaration of non degree of disability moderately increased (first degree from 31% to 35 % and no degree from 23% to 28%). In the controlled assessment there were the most changes of disability degrees in 2010 (1,2 % increasing degree, 19,9 % decreasing degree). The probably causes besides influence of changing the legal regulation in 2010 could be the demographic changes. The most frequent diseases caused disability at the age up to 18 are mental and behavioural disorders, over 18 are on the first place diseases of the musculoskeletal system and connective tissue, than mental and behavioural disorders.

Lessons

No lessons directly are supported by any project.
Conceptual Approaches to Disability Determination


Background

Contemporary notions of disability view the phenomenon as the gap between individual capabilities and environmental demands. Examining disability relative to participation in the labor market, leads us to a decisional crossroad: determining the ability to work or not. We are challenged to reduce a complex, multi-faceted process into a dichotomous outcome. This decision is further complicated by our understanding that functional abilities differ among individuals and all members of society operate in environments that may help or hinder their function. The World Health Organization’s (WHO) International Classification of Functioning (ICF) served as a conceptual framework for development of a self-report functional assessment instrument. The ICF provides a common level of measurement and a common language to use across health care disciplines and sectors of the government. We chose to develop the instrument at the ICF Activity level, focusing on domains related to learning and applying knowledge; general tasks and demands; communication; mobility; self-care and interpersonal interactions and relationships.

Methods

Prospective study with 3,190 participants

Results

Data using item response theory (IRT) and computer adaptive testing (CAT) methodologies reveals support for a 7-factor model of functional Activity scales relevant to work compared to the 6 domains of the hypothesized model.

Conclusions

This research provides empirical evidence supporting an alternative domain structure compared to the hypothesized ICF model. To fully inform decisions about work disability, the assessment of activity (individual capability) as well as workplace demands and critical features of the workplace environment must be captured. Once measured separately, the outcomes will eventually have to be realigned in order to determine the fit between individual capabilities and workplace demands.
The assessment of work endurance: 2nd round of a questionnaire survey in European countries

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Background

In the Netherlands the assessment of work endurance (WE), i.e. the number of hours per day and per week a disability claimant is able to work, is part of the overall disability assessment by insurance physicians (IPs). We conducted a questionnaire survey in two rounds among 35 EUMASS representatives from 19 European countries to improve our understanding of WE and of the assessment of WE. The overall aim of this study was to evaluate in European countries how (limited) WE is defined and operationalized, to gather information on the concept of WE and how it is applied in practice. We addressed four research topics: (1) whether WE is assessed, (2) what are normal working hours, (3) what are accepted causes for restricted WE and (4) by which procedures and methods WE is assessed. In 2014 we presented the results from the first round questionnaire survey at the EUMASS congress.

Methods

In the second round questionnaire we asked 15 questions on the relation of specific diseases with WE, which methods and procedures are suitable to assess WE and whether participants confirm indications used in the Netherlands to restrict WE.

Results

Musculoskeletal, circulatory and mental disorders are most frequently reported as accepted causes for restricted WE. The following methods were reported as equally suitable to assess WE: ergometric test, functional capacity evaluation, clinical test and psychological test. Self-report questionnaire was rated lowest. Most participants (55 to 82%) confirmed the indications to restrict WE used in the Netherlands.

Conclusions

Both physical and mental disorders are generally accepted causes for restricted WE. Objective methods to assess WE are preferred. The most important indication to restrict WE is a general energy deficit. The results of this study can be used in future research to improve current practices in the assessment of WE.
Child’s relative age and disability - importance of being born at the end of the year for the benefits from social insurance


Background
Few if any studies are made about the child’s relative age and the effects on benefits from social insurance. In Sweden, school starts the year a child turns seven, with few exceptions. Individuals born just before or just after the new year have about the same age, but start school in different years, with differently aged classmates. These different contexts have been shown to have effect on the children’s subsequent school outcomes, with indications on being especially important for children at risk of leaving school prematurely. In addition, effects of relative age have been established on the risk of receiving an ADHD-diagnosis. A diagnosis is one of the preconditions to receiving temporary disability insurance at young age, and ADHD is one of the more common diagnoses in this group. With this background, we pose the question of what impact the date of birth may have on social security uptake.

Methods
We use data for the entire Swedish population belonging to a younger cohort (born July 1975 to June 1994). The exogenous variation comes from comparing individuals born on either side of a new year. This is done both in a continuous model and focusing specifically on individuals born between 15 December and 31 December, and individuals born between 1 January and 15 January in the calendar year after. Outcome variables are disability pension, care allowance and assistance compensation.

Results
The main finding of this study is that children born between 15 Dec and 31st December, has an elevated risk later in life to need support from social insurance compared with children born in the weeks after the end of the year.

Conclusions
Immaturity for school in the context of an inflexible school system may result in long term consequences in terms of later need of financial and social support from social insurance.
Reintegration of child with acquired brain injury into the educational process

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Issue
Reintegration of a child with an acquired brain injury (ABI) into the school system is an integral part of rehabilitation. The primary goal of reintegration is to enable the child to be successful in educational and social settings.

Description
Inclusion in school after ABI is an important and critical point of time in the life of children and their families. Resources that may impact the transition include interventions prior the school entry as well as direct support for the child, parents and educational teams in schools which are provided by educational (Hospital School teacher and the special educational teacher) and rehabilitation team closely collaborating in rehabilitation setting. The teaching methods in the educational programme are adapted and adjusted to the educational process where the pupil can be more efficient and effective. The teaching methods in the educational programme are adapted and adjusted to the educational process where the pupil can be more efficient and effective.

Results
In order to maintain social contacts with peers while the patient is in the process of rehabilitation visits of classmates are organized in rehabilitation settings. Additional workshop is organized in the classroom of home environment school where students learn about the special needs of their classmate with ABI. The educational process is adapted to eventual changes in child and/or family abilities and needs as well as school characteristics during the process of integration.

Lessons
Close collaboration of rehabilitation team and teaching team of hospital school is crucial for the successful integration of the child with ABI in educational process.
Requirement for reliable assessments in social insurance: Talk about work!

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Background

Existing criticisms on transparency and reliability in disability evaluation have yielded the need for guidelines and training functional assessment. Within a larger multi-centre study (RELY-1), we trained psychiatrists to actively interview work capacity, addressing four recommended topics at the beginning of their assessment (description of (1) previous job and (2) activities, (3) statement on capacity to work, (4) substantiated by means of current work-related medical complaints and symptoms), followed by a systematic rating of mental functions and work capacity. We tested whether the extent of work-related information addressed during interviews was associated with the agreement between psychiatrists in their rating of claimant mental functions and work capacity.

Methods

Nineteen psychiatrists participated by rating 30 real-life video-taped interviews with claimants, conducted by 12 trained psychiatrists (from the group of 19). We analysed frequency distribution (sum of utterances) for recommended topics. Within each interview, agreement among four psychiatrists in ratings (five-point scale: from ‘no impairment’ to ‘total impairment’) was calculated by means of Kendall’s coefficient of concordance (W) for each of three sub-forms: (1) mental functions (12 items), (2) work capacity for previous activities (13 items), (3) work capacity for alternative activities (13 items).

Results

Using significant concordance coefficients only, we found a positive rank-order correlation between the amount of claimant information about the possibility of work resumption and rater agreement in work capacity for past activities ($rs(14) = 0.59, p = 0.017$) and a trend to significance for the association between the amount of information about current work-related medical complaints and agreement in work capacity for alternative activities ($rs(8) = 0.62, p = 0.057$).

Conclusions

In support of functional approaches, we demonstrate that the extent of claimant information about possibility of work resumption and work-related medical complaints was directly linked to higher agreement of work-related functional ratings.
Prescribing of antibiotics in Slovenia in the period 1999 – 2012

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Issue
Rising antibiotic resistance has become an increasing public health problem. In Slovenia, multiple activities were designed and introduced by the Health Insurance Institute of Slovenia (ZZSZ) and other organizations to influence prescribing of antibiotics. Our aim is to present the activities, utilization of antibiotics, some resistance patterns and economic consequences.

Description
Utilization is expressed in defined daily doses per thousand inhabitants per day. Multifaceted interventions were conducted over time involving all key stakeholder groups, that is, the Ministry of Health, ZZZS, physician groups and patients. These included comprehensive communication programs as well as prescribing restrictions for a number of antibiotics and classes.

Results
From 1999 to 2012, antibiotic consumption decreased by 2–9% per year, with an overall decrease of 31%. There were also appreciable structural changes. Overall antibiotic utilization and the utilization of 7 out of 10 antibiotics significantly decreased after multiple interventions. The resistance of Streptococcus pneumoniae to penicillin decreased in line with decreased utilization. However, its resistance to macrolides increased from 5.4 to 21% despite halving of its utilization. The resistance of Escherichia coli to fluoroquinolones doubled from 10 to 21% despite utilization decreasing by a third. Expenditures on antibiotics decreased by 53%.

Lessons
Multiple demand-side measures significantly decreased antibiotic utilization and associated costs. However, there was variable impact on antibiotic resistance. Additional targeted activities are planned to further reduce antibiotic prescribing and resistance.
Psychosocial and legal assistance to former prisoners of war, military and civilian (pilot project)

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Issue
After the last war in BiH, has registered more than 55,000 victims of torture - inmates, for which the documentation undoubtedly confirm their status. Most of them had been exposed to various forms of torture. This has left a deep trauma and consequences on their mental and physical health and functioning. Generally fall into categories that are difficult to employ, uninteresting to potential employers, for both, middle and older age, and damaged health. BiH institutions did not provide the legal form of protection and support.

Description
The project includes 30 former prisoner and 80 thei family members. Project activities are planned through group and individual work. Were implemented 6 workshops, and each workshop would be attended by 30 users. Workshops included psychosocial and legal support. Individual treatment was conducted through individual psychotherapeutic work with users, depending on the need, and the clinical picture that would be detected during the workshops. At the same time took place and psycho-educational work with the families of former prisoners - victims of torture.

Results
PTSD symptoms were measured with PTSD checklist, and level of functioning was measured with Functioning assesment short test and Manchester Short Assessment of Quality of Life (MANSA). Providing legal, administrative, psychotherapy and social support and assistance for 30 ex-war prisoners - victims of torture and 80 their family members, resulting with raising the level of psychosocial and working functioning victims of torture and their family members.

Lessons
The consequences on the mental health of former prisoners are a significant and after 20 years of torture. Structured and continuous work with people who are survived torture is necessary, and leads to an increase in their level of functioning.
Evaluation de la prise en charge thérapeutique de la tuberculose selon les recommandations OMS


Background
La tuberculose maladie justifie d’une prise en charge thérapeutique standard détaillée dans un guide publié par la Haute Autorité en Santé (HAS) en 2007 reprenant les préconisations de l’Organisation Mondiale de la Santé (OMS). Cette prise en charge permet d’éviter les rechutes de la maladie. La HAS est une autorité publique française indépendante qui a pour but de contribuer à la régulation du système de santé par la qualité et l’efficience. Le Régime Social des Indépendants (RSI) est le régime d’assurance maladie des travailleurs indépendants, commerçants, artisans et professions libérales.

Methods
Les services médicaux du RSI ont mené une étude nationale en ciblant les patients qui, en 2011 ont été remboursés de trois antituberculeux ou, ont été admis en affection de longue durée pour tuberculose. Les médecins prescripteurs ont été contactés pour valider le diagnostic de tuberculose maladie et détailler le parcours de soins. Le schéma thérapeutique a été comparé au traitement standard recommandé par la HAS et l’OMS.

Results
148 patients atteints de tuberculose maladie ont été inclus dont 71,6% avec localisation respiratoire. Le diagnostic a été porté en établissements de santé dans 84,5% des cas. Le traitement standard préconisé (phases 1 et 2) était utilisé dans 30,1% des cas : la quadrithérapie préconisée représentait 55,2% des traitements en phase 1 et respectait la durée recommandée dans 62,9% des cas ; la bithérapie préconisée représentait 80,4% des traitements de phase 2 et respectait la durée de traitement pour 51,0% des cas. L’écart au traitement standard n’était explicable par la mise en évidence d’évènements de santé ou sociaux que pour 39,0% des cas.

Conclusions
Cette enquête a permis d’évoquer une relative méconnaissance du traitement standard préconisé par la HAS et de l’OMS. Elle a été diffusée auprès des responsables de l’organisation de la lutte contre la tuberculose pour les alerter.
Work (Emotion) ability- emotion work in the work rehabilitation process

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Background

Considering the case of Sweden, this article problematizes the changing emotional context of work rehabilitation process with regards to long-term sick leave. The particular focus is on the changing emotional rules that are enacted during meetings-called status meetings- between health and welfare professionals and their clients. Since 2003, the Swedish Social Insurance Agency (SSIA) is obliged by the law to summon a status meeting when required. The status meeting is a multiparty institutional conversation involving at least three different parties that are central to the rehabilitation process of a sick-listed person.

Methods

We draw on data from two projects investigating communicative processes within such meetings that were conducted in 2007 and 2013. The five year span separating those two studies was filled with not only organisational changes but also wider welfare and societal changes particularly in relation to the way sick-leave and people on sick-leave were perceived. On the one hand, there has been a growing importance of participation and user involvement in the health and welfare sector, on the other hand, the increase in hostility towards welfare benefits recipients and sick-listed people in particular has been noticed. In this paper, we analyse interactional data from sound (2007), and video and sound (2013) recordings of status meetings with the purpose of illuminating feeling rules embedded in the work rehabilitation process.

Results

When comparing data from these two studies, we observe a gradual shift from the process of negotiation to the process of unity formation. This is reflected in the changing feeling rules that apply to both health and welfare professionals and their clients.

Conclusions

As a result, a new type of affective practice and affective service workers emerge to effectively change the meaning and understanding of workability within the context of sick-leave rehabilitation.
Posttraumatic stress disorder – assessment, work (dis)ability, treatment

prof. Marga Kocmur, MD PhD - Slovenia

The assessment of some serious posttraumatic disorder cases is presented. We discuss the possibility of the use of some psychological instruments, particularly DAPPS, in assessing the duration, intensity and depth of the symptoms of PTSD.

We describe several cases of the citizens of Bosnia and Hercegovina serving either in military or civil corps in Afghanistan. They were all involved in serious war operations and they all experienced different types of psychological and/or somatic traumas.
Exonération du ticket modérateur pour spondylarthrite ankylosante et place des biothérapies

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Background
Dans un contexte de forte croissance des biothérapies, thérapeutiques particulièrement coûteuses, la Caisse Nationale d'Assurance Maladie a lancé une campagne d’accompagnement des prescripteurs sur cette thématique. Le Lot était en 2012 le département ayant la première place concernant la part des patients en Affection de Longue Durée pour Spondylarthrite Ankylosante et traités par anti-TNF α.

Methods
L’Assurance Maladie assure une couverture complète des frais de santé (100%) pour des Affections dites de Longue Durée (ALD). L’admission en ALD pour Spondylarthrite Ankylosante est réservée aux formes sévères. Elle est accordée après l’étude du dossier par un médecin conseil et constitue la seule étape où l’Assurance Maladie peut se positionner. Afin d’identifier les difficultés de décision, une étude qualitative de l’ensemble des dossiers, a été menée au service médical du Lot entre le 01/03/2014 et le 30/09/2014, basée sur les références professionnelles en vigueur (diagnostic et sévérité).

Results
26 dossiers ont été analysés, dont 11 admissions. Les critères diagnostiques les plus fréquents ont été l’existence de rachialgies inflammatoires (100% des dossiers), une imagerie compatible avec le diagnostic (81% des dossiers renseignés) et la positivité HLA B27 (67% des dossiers renseignés). Les critères de sévérité sont majoritairement représentés par les scores d’incapacité fonctionnelle (BASFI>4) (76% des dossiers renseignés), et d’activité de la maladie (BASDAI>4) (71% des dossiers renseignés). Les autres critères de sévérité concernent 12% des dossiers.

Conclusions
Assessment and data base of chronic disabling diseases of Italian workers in the social security

1. Anna Laura Carducci, MD – INPS, Italy; 2. Federico Cattani, MD, Italy

Background

In recent decades, scientific advances have led to cure diseases and prolong conditions that previously had a rapid fatal evolution, so now many of the same diseases have a chronic degenerative character. It is clear that, after the treatment of the acute phase additional tools are needed to support the long-term health. These tools are designed for the specific needs related to enhancing social inclusion of people with disabilities through passive measures (benefits in cash) and active measures (services, active policies of rehabilitation and inclusion at work).

Methods

In this study we aim to highlight the chronic diseases responsible for disability INPS, the monitoring of the phenomenon, in epidemiological terms, is an essential objective for better resource planning. In our view, the construction of national and European databases becomes essential to know the disabilities that require multiple interventions in different areas for the welfare and social protection of individuals. The mortality data appear to be less suitable to know the spread of chronic diseases. At the last decade thanks to computerization in INPS we can have a database.

- The centers INPS (public insurance) are present in all Italy. in these centers, doctors visit patients with chronic diseases that reduce the ability to work. The medical records of each visit are shown online (ICD pathology, age, gender, home). The data were processed by us to obtain information on chronic diseases that cause long-term disability.

Results

The diseases most frequently encountered in the diagnosis are: cancer, heart and neurological; psychiatric disorders are often accompanied by other diseases.

Conclusions

The phenomenon of “chronic degenerative diseases” or “non-communicable diseases” is considered among the most important issues in WHO and in Eu. The guidelines indicate that for the health of European countries, monitoring of chronic or non-communicable diseases is an important priority.
Evidence based knowledge in insurance medicine

1. Søren Brage, MD PhD - Directorate for Labour and Welfare, Oslo, Norway; 2. Corina Oancea - “Carola Davila” University for Medicine and Pharmacy, Bucharest, Romania

Background

For physicians in social security, evidence based knowledge is needed in relation to medicine, but also to law, social science and economics. Little is known of the present status for evidence based knowledge (EBK) and practice. EUMASS scientific committee has conducted a survey for information. The aim was to make an inventory on deficits and on successful pursuits of EBK in social security.

Methods

Representatives of the 19 EUMASS countries were sent two questions by e-mail: “In what area of insurance medicine is evidence based knowledge lacking most in your country?”, and “Do you have an example of successful use of evidence based knowledge in insurance medicine in your country?” The answers should be given in free text.

Results

The response rate was acceptable (12/19 countries). Lack of EBK was most frequently reported from two domains of insurance medicine: disability evaluation and sick leave management/return-to-work promotion. Lack of EBK was most evident in assessment of persons with mental health problems. The most frequent examples of successful application of EBK came from the same two domains. Nine countries reported examples from disability evaluation (in guidelines, report writing, and as assessment tools). Minor examples in rehabilitation, work participation, and sick leave management were also reported.

Conclusions

Our study was a first step towards a larger study on EBK in insurance medicine. Domains like disability evaluation, intervention for return-to-work, and sick leave management are common work tasks for insurance physicians. They find, however, little support in EBK in these domains.

EBK and evidence based medicine are understood in different ways. The terms need clearer definitions in insurance medicine. Maybe the scope of evidence based medicine is too narrow since many studies use clinical outcomes. There is a need for studies with return-to-work outcome.
What do Insurance Medicine practitioners need? Needs Assessment and Priority Setting for a new field within Cochrane – Insurance

1. Rebecca Weida, MSc - asim - Swiss Academy for Insurance Medicine, University Hospital Basel, Swiss; 2. Wout de Boer, MD PhD - asim - Swiss Academy for Insurance Medicine, University Hospital Basel; 3. Prof. Jason Busse - Department of Clinical Epidemiology and Biostatistics, McMaster University; 4. Prof. Kristina Alexanderson - Department of Clinical Neuroscience, Karolinska Institute; 5. Prof. Regina Kunz - asim - Swiss Academy for Insurance Medicine, University Hospital Basel; 6. Prof. Sandra Brouwer - Department of Health Sciences, University Groninge

Issue

Insurance Medicine is a recently established field within the Cochrane Collaboration – a global independent network of researchers, professionals, patients, carers, and people interested in health care. Cochrane Insurance Medicine (CIM) seeks to indicate research priorities in insurance medicine, conduct methodological work relevant to its scope, and train contributors and stakeholders. The new field needs to set priorities and assess the needs of its target population. Surveying visitors of the ICLAM and EUMASS congresses will inform us what kind of information, knowledge and skills practitioners in insurance medicine need– and will give direction about the best ways to deliver evidence and to train them.

Description

We will develop an online questionnaire, based on 1. the current EUMASS council members’ survey (“The need for evidence based knowledge in European insurance medicine”, Brage and Oancea) and the goals of the field identified in the Cochrane Insurance Medicine Business plan. The survey will be conducted online among visitors of the ICLAM and EUMASS congresses 2016.

Results

We expect to gather specific information about insurance medicine topics where practitioners, researchers and stakeholders experience a need for more as well as stronger evidence and training. Stakeholders may deplore a lack of systematic reviews in insurance medicine, call for insurance medicine related methodology, guidelines or tools for practice (e.g. in the assessment of work disability). Stakeholders may ask for training and their preferred ways of delivery – which can be online courses or/and face-to-face workshops.

Lessons

The survey will inform priority setting within the field Cochrane Insurance Medicine.
Initiative for the introduction of new specialisation in the area of Medical Assessment and Insurance Medicine In The Republic of Slovenia

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Issue

The doctors of the Health Insurance Institute of Slovenia and the Institute for Pension and Disability Insurance of Slovenia are from various specialities. They enforce rights arising from social insurance, assessment and financial medical control.

Description

Besides medical knowledge, the work requires special skills and abilities. The study programme at the Medical Faculties, the existing specialisations and other post-graduate training courses failed to provide appropriate education in this area, hence the required knowledge in the area of medical assessment and insurance medicine is not obtained during the current education. To ensure appropriate education of doctors working in the respective area we propose to introduce a new specialisation or a post-graduate programme.

Results

We established the Section for Medical Assessment and Insurance Medicine (SMIZM) at the Slovenian Medical Association (SZD), which has already started the required activities in order to prepare a programme in the shortest time possible and introduce a new specialisation or another form of post-graduate training in the area of “Medical assessment and Insurance Medicine” in Slovenia. The new specialisation would ensure appropriate training, increase the employment possibilities for the young and ensure undisturbed extension of licences. All support and professional assistance to SMIZM in the preparation of the new specialisation programme or other forms of training has already been offered by a great number of clinical chairs of the Medical Faculty in Ljubljana.

Lessons

Post-graduate training courses and specialisations in the area of insurance medicine are already underway in numerous countries, EUMASS members, but they differ greatly in terms of content and the period of
duration. The SMIZM SZD is asking the international experts to offer help and cooperation in the preparation of the specialisation programme in Slovenia. We propose uniform and coordinated training programmes in the area of insurance medicine and social insurance medicine throughout EUMASS members.
Meet the new field within Cochrane – Insurance Medicine. An interactive presentation

1. Rebecca Weida, MSc - asim - Swiss Academy for Insurance Medicine, University Hospital Basel; 2. Wout de Boer, MD PhD - asim - Swiss Academy for Insurance Medicine, University Hospital Basel; 3. Prof. Jason Busse - Department of Clinical Epidemiology and Biostatistics, McMaster University; 4. Prof. Kristina Alexanderson - Department of Clinical Neuroscience, Karolinska Institute; 5. Prof. Regina Kunz - asim - Swiss Academy for Insurance Medicine, University Hospital Basel; 6. Prof. Sandra Brouwer - Department of Social Medicine, University Medical Center Groningen

Issue
In the medical field the importance of evidence has long been acknowledged, yet the area of insurance medicine still lacks a sufficient evidence base. This applies to both research and practice. A new field within Cochrane – a global network of researcher, practitioners and health professionals – has recently been established. Cochrane Insurance Medicine (CIM) strives to raise awareness for the lack of insurance medicine related endpoints in systematic reviews and tries to meet the needs of stakeholders for more and stronger evidence.

Description
The presentation will explain what Cochrane is and give an overview about the activities of the global network. It will illustrate the basics of Cochrane like: What can be found in the Cochrane Library, the difference between a review, a systematic review and a Cochrane review. What are review groups within Cochrane, what do they do and how do they work? The role of CIM and its role within Cochrane will be elaborated on, and their main goals – which include the development of insurance medicine related methodology, guidelines and tools for practice, as well as the provision of training – will be discussed.

Results
Finally an overview of CIMs activities will show to the audience how they can benefit from CIM, and how professionals interested in Cochrane and insurance medicine can contribute to CIM.

Lessons
What is Cochrane, what is CIM and what does CIM contribute to insurance medicine? How can professionals support and become contributors of CIM?
An internet-based course for ethical reflection in social security medicine in Norway

1. Solli, Hans Magnus, MD PhD - Research Unit, Division of Mental Health and Addiction, Vestfold Hospital Trust, Tønsberg, Norway; 2. Blaasvær, Sverre, MD - Norwegian Labour and Welfare Administration, Skien; 3. Elvsåshagen, Harald, MD - Norwegian Labour and Welfare Administration, Tønsberg, and General Practice, Stavern; 4. Reime, Nina Thunold, MD - Norwegian Labour and Welfare Administration, Skien

Issue

Physicians have a triple role as a) attending physician, b) expert and c) manager of welfare goods in the national social security system of Norway. There is a need for increased ethical reflection on how to deal with conflicts between these roles.

Description

The Norwegian Society for Social Security Medicine has appointed a working group to develop a course for ethical reflection in social security medicine. The course aims to educate both attending physicians and medical officers, and will be part of a well-established internet-based continuing education program for physicians. A comprehensive article about the basic professional and ethical principles of medical work (dis)ability assessments has been written. Important learning goals have been defined. The task of describing illustrating cases is in progress.

Results

The basic components of the course are: Part I: The social mission – historical, political and professional foundations, the common goods, the perspectives of sympathy and of impartiality, concepts of disease/illness, functional ability (ICF included), positive health, and objectivity in terms of both cognitive and ontological objectivity. Part 2: Basic ethical principles: human dignity, doing good, e.g., promoting work ability, avoiding harms, respect for autonomy and justice/impartiality. Basic virtues are empathy and discernment. In difficult situations these principles should be balanced. Only the principle of human dignity is non-negotiable.

Lessons

In Norway it is possible to let a course for ethical reflection in social security medicine cover all physicians. The balance of the principles will in some cases turn out differently for the attending physician in comparison to the medical officer. A basic ethical lesson in social security medicine is that neutrality does not mean neutrality of values. Social security medicine is a highly value-laden activity. Neutrality means, however, neutrality of the person. An assessment should not be one-sided in favour of a specific person, e.g., “my dear patient”.
European core-sets of tasks and competencies for the assessment of long-term work disability

1. Annette de Wind, MD - Environment and Health, Department of Public Health and Primary Care, KU Leuven University, Leuven, Belgium; Department of Social Medical Affairs, Dutch Employee Insurance Agency (UWV), Rotterdam, the Netherlands; 2. Anema JR - Research Center for Insurance Medicine AMC UMCG UWV VUmc, Amsterdam, the Netherlands; 3. de Boer WEL - ASIM-Forschung und Bildung, Universitätsspital Basel, Basel, Switzerland; 4. Dekkers-Sánchez PM - Department of Social Medical Affairs, Dutch Employee Insurance Agency (UWV), Rotterdam, the Netherlands; 5. Godderis L - Environment and Health, Department of Public Health and Primary Care, KU Leuven University, Leuven, Belgium

Background
Where harmonization has led to a common basis for health and safety legislation and mutual recognition of the treating medical specialists in Europe, that does not apply to social security and the doctors who work in that field. In this study we want to develop consensus about a European core-set of tasks, knowledge and competencies required by a physician to execute an assessment of long-term work disability.

Methods
In 2015 we conducted a Delphi study. From 13 European countries three practitioners, 1-2 educators and 1-2 policy makers participated, representing relevant stakeholders and a balanced geographical spread. Variation in responses between respondents from different countries and with a different professional background was analyzed using Anova Post hoc analysis (Bonferroni).

Results
The Delphi study is ongoing so the results are still incomplete and preliminary. Consensus was reached on 8 of 30 questions regarding the tasks of a physician when assessing long-term work disability. Consensus was reached on 12 of 18 questions concerning the required knowledge, skills and competencies when carrying out those tasks. Six questions showed variation in responses between participants with different professional background.

Conclusions
We developed consensus about a European core-set of tasks, knowledge and competencies required by a physician to execute an assessment of long-term work disability. In a subsequent study the gaps will be defined between the desired European core set and the respective current national situations.
**Overdiagnosis and overattribution?**

1. Carla Corsi, MD - INAIL Turin, Italy; 2. Carnassale M - INAIL Alessandria, Italy

**Issue**
Overdiagnosis occurs when people without symptoms are diagnosed with a disease that will not cause them to experience symptoms or early death. Overdiagnosis refers to the related problems of overmedicalisation and overtreatment, diagnosis creep, shifting thresholds, and disease mongering.

**Description**
In the context of Occupational Medicine overdiagnosis is possible and another problem is the overattribution, in relation to the assessment of a causal relationship with work.

**Results**
Examples of occupational “diseases” that can represent cases of overdiagnosis consisting of unnecessary and socially harmful limitations to fitness for work. We must pay attention to: pleural plaques, alterations of the intervertebral discs, “small airways disease”, sub-clinical hearing impairment.

**Lessons**
In Italy the National Insurance for occupational diseases regularly recognizes less than 50% of the notified diseases; this might suggest overdiagnosis and possibly overattribution in reporting. Physicians dealing with the diagnosis of occupational diseases are requested to perform a careful, up-to-date and active investigation.
Can unemployed persons have occupational disease?

Irena Manfredo, MD - Medicina dela, prometa in športa d.o.o., Zagorje, Slovenija

Issue

In the beginning of January 2015 there were nearly 120,000 unemployed persons in Slovenia and almost 45% of them had had more than 10 working years before became unemployed. Employment Service of Slovenia /ESS/ in its active employment policy invites occupational health specialists to advice the officers in the process of placement service about the health problems of unemployed persons to find them appropriate job. Treatment includes discourse and overview of the medical record, without medical exam. At this point the physician`s role toward unemployed client officially stops. No systematic records are kept of occupational diseases caused by exposure at previous work place.

Description

A case of accidental discovery of asbestos-related occupational disease revealed many holes in healthcare safety net that needs mending. Law in Slovenia requires that asbestos-related occupational diseases are verified by establishing the causal relationship between exposure at work and its effect on the worker. An unemployed carpenter who was referred for consultation with occupational health specialist as part of the regular procedure for the unemployed registered at the ESS had been exposed to asbestos when he worked as a teenage apprentice.

Results

The diagnosis of the bilateral pleural disease was confirmed two years before referral to OH specialist who presented him the rights about proving the professional origin of his pleural disease and proposed him to make an expertise free of charge as ethical and professional challenge. Because the carpenter had no record of exposure, his past working environment was analysed for minerals and found chrysotile in all asbestos board samples.

Lessons

This case points to the need of adopting guidelines for occupational health specialists providing counsel to the national employment service so that the number of unrecorded occupational diseases is minimised and their verification is covered by the state.
Disability benefits in occupational diseases in Romania


Issue

The first regulations on the protection of workers in Romania were implemented in 1885 by the “Mining law” which instituted compulsory social security for miners and workers in the oil industry, the establishment of houses of aid and a pension house, followed in 1902 by “Crafts law” which provided for a system of social insurance-based corporate beneficiaries and in 1912 “Labor insurance law” regulating compulsory insurance against sickness, occupational accidents, maternity and old age.

Description

Currently, Law 346 applied in 2005 and Law 263 of 2010 provides a number of benefits to people with occupational diseases: temporary disability benefits, permanent disability benefits, workers’ medical benefits, survivor benefits. The social insurance physicians are in charge to assess the work capacity of the insured people who are in sick leave with occupational diseases for more than 90 days and to guarantee their rights according to the law: sick-leave prolongation until 9 months or invalidity pension (Ist, IInd or IIIrd degree), free access to rehabilitation programmes, medical devices and vocational education. The authors analyze the structure of disability through occupational diseases and its evolution over the last 10 years, based on statistical data reported by the country’s social insurance physicians and centralized at the National Institute for Medical Assessment and Work Capacity Rehabilitation.

Results

At the end of 2014, the records of the National Public Pensions, notified 2195 disability pensioners with occupational diseases, accounting for 0.3% of all disability pensioners, with an uneven distribution in Romania. More results will be presented at the congress.

Lessons

The figures are lower than in other European countries. Programs have to be developed in order to update the list of occupational diseases recognized in Romania and to better assess their impact on work capacity.
Insurance and repair for accidents at work or occupational diseases in France

Goupil Luc, MD - Médecin-conseil, France

Issue

Insurance and repair for accidents at work or occupational diseases in France

Description

The evaluation and compensation of after-effets resulting from an accident at work (AW) or an occupational disease (OD) fall under special legislation.

Results

Identification of permanent disability (resulting from an accident at work or occupational disease).

Is determined by the medical adviser according to: The nature of the disability, The general condition, The age, Physical and mental faculties, Skills and professional qualification The French Code of Social Security provides for a rate of permanent disability which is based on an indicative scale. This scale provides average rates, the doctor may walk away from it the sets out clearly the reasons which led him to do it (e.g. = an increase for the case of former disability of a contralateral side). Revision of an Permanent Disability rate The condition of the victim is likely to worsen or improve. This change can be spontaneous or result from treatment. It is then appropriate to conduct a review. For the estimation of the new rate, the medical advisor refers to the rate set in the previous review; he (or she) does not change the rate if the effects have evolved in a tangible way.

The death of the victim as a result of consequences of AW or OD, leads to a new setting of compensation allocated to potential rights holders.

Lessons

Prevention of professional exclusion As seen previously for disability, the medical adviser of National Health Insurance, when monitoring an insured victim of an AW or OD must assess the risk of difficulty in the recovery of the professional activity and of professional exclusion.
Health Related Quality of Life after serious occupational injuries and long term disability

1. Naumie Ibishi, MD PhD - University Clinical Center of Kosova Clinic of Psychiatry, Kosovo; 2. Arber Tolaj - University Clinical Center of Kosova Clinic of Orthopedic and Traumatology; 3. Kushtrim Tolaj - Ministry of Health; 4. Vlasta Zajic-Stojanovic - Croatian Health Insurance Fund; 5. Xhemajl Selmani - University Clinical Center of Kosova Clinic of Orthopedic and Traumatology

Issue
Work-related injuries constitute an important public health problem. They can be disabling, leading to major adverse social and economic consequences for the worker and his or her family.

Description
Health Related Quality of Life includes the dimensions of physical, social and role functioning, mental and general health perceptions. In this review we used narrative method. A complex interplay of age, disability before injury and higher levels of psychological distress were significant risk factors for long-term disability, according to recent findings. There has been very little investigation into the extent to which work-related injuries affect the HRQoL of individuals. Many factors are known to affect HRQoL after injury, but predictors of diminished HRQoL remain incompletely understood. Findings highlight the importance of recognizing and addressing the psychological responses to injury. Psychological consequences of traumatic events often go unrecognized in clinical settings. The aim of this review of literature was to evaluate evidence based research and to highlight the importance of HRQoL decline, after serious occupational injuries, using review of available research studies literature.

Results
Results from 35 different studies regarding HRQoL after serious injury suggest that a patient’s psychological response to a traumatic event should be a major concern because of its contribution to ongoing disability and HRQoL decline, as outcome.

Lessons
Although psychological consequences of physical injury may contribute to long-term disability, all significant risk factors and predictors of HRQoL decline, for long-term disability after injury, have yet to be identified. Once these factors are known, interventions to ameliorate their effect on injury outcomes can be developed to maximize recovery in patients with serious work-related traumatic injuries. The timely and accurate ability to predict long-term disability shortly after injury would make it possible to recognize patients at high risk and efficiently implement interventions to limit the duration and severity of long-term disability.
Factors associated with sick leave during pregnancy in Slovenia


Background

Pregnancy is a specific physiological state which may affect the capacity for work. Absence from work during pregnancy is common in many countries including Slovenia. So far detailed studies to identify factors associated with sick leave in pregnancy have not been performed in Slovenia so this was the purpose of our analysis.

Methods

We linked two databases operated by National Institute of Public Health - Perinatal Information System and The Record of Temporary and Permanent Absence from Work due to Illness, Injury, Nursing, and Other Causes. As a linking key the unique health insurance number was used. This process gave us combined data on pregnant women characteristics together with details of their sick leave during pregnancy. The study included 12,935 employed pregnant women, who gave birth in 2003 in Slovenia. Multiple logistic regression was used to determine the impact of selected demographic and health related factors on sick leave.

Results

74% of employed pregnant women were on sick leave at least once during pregnancy and 53% had an episode of sick leave longer than 30 days. The predominant reasons for sick leave were conditions associated with pregnancy. Odds for longer sick leave were significantly higher in women older than 35 years, in less educated women, in women employed in health and social care, manufacturing and catering, in women from areas without high unemployment, in obese women, in women with chronic disease and poor obstetric history, in those with infertility treatment and with multiple pregnancy.

Conclusions

Sick leave in pregnancy is common but also significantly related to pregnant women’s health. It is most prevalent in those women who have a combination of several factors that increase the risk of complications during pregnancy. There is also correlation of sick leave in pregnancy and workplace conditions.
Gender bias in physicians’ sickness certification practice with regard to prescribed length of sick leave: a register study


Background
The aim of this study was to examine whether there are differences between women and men with regard to prescribed length of sick leave in medical sickness certificates.

Methods
The analysis included 679,216 gainfully employed individuals (55% women) with an episode of sickness benefit, sick leave >14 days, in 2010–2014. For each episode, the prescribed length of sick leave and primary diagnosis was retrieved from the first and second sickness certificate. Diagnoses with at least 30% of either sex were included in the study. Unexplained differences between women and men in prescribed length of sick leave were analysed using the Blinder-Oaxaca decomposition, allowing for diagnosis, demographic and socioeconomic factors.

Results
On average, men were prescribed 2.7 days longer sick leave than women in the first sickness certificate. The gender difference varied between diagnostic chapters of ICD-10, from 0.7 days for mental and behavioural disorders, 2.2 days for diseases in the musculoskeletal system up to 3.4 days for diseases in the circulatory system. The gender differences also remained in the analyses of the most common diagnostic blocks of ICD-10. Men were on average prescribed longer sick leave than women in 16 of 20 diagnostic blocks investigated, for example 3.5 days longer for cerebrovascular diseases (I60–I69) and 0.9 days longer for influenza and pneumonia (J09–J18). In the 366,317 episodes where a second sickness certificates was available (i.e. extended sick leave), the gender differences in prescribed length of sick leave remained. On average, men were prescribed 1.8 days longer sick leave than women in the second sickness certificate.

Conclusions
There is need for further studies to understand the causes of the unexplained gender differences in prescribed length of sick leave. It is necessary to discuss the implications of the results in terms of equal treatment and, thus, the credibility of the sickness insurance system.
Childbirth, hospitalisation and sickness absence: a cohort study of Swedish female twins

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Background

Although having children has been shown to contribute to an overall well-being, being pregnant and giving birth may involve increased physical and mental distress. Previous research has for example shown negative physical and mental health effects including depression and other mental disorders to be linked to childbirth. Few studies have studied the effect of morbidity on sickness absence in relation to childbirth. The aim was to investigate associations between giving birth, morbidity in terms of hospitalisation, and future sickness absence, also while taking familial (genetics and shared environmental) factors into account.

Methods

This prospective register-based cohort study included female twins, that is, women with a twin sister (5118 twins), born in Sweden 1959-1990. At least one of the women in a twin pair had a first childbirth 1994-2009. The risk of sickness absence in relation to childbirth and hospitalisation were calculated as hazard ratios (HRs) with 95% Confidence Intervals (CIs).

Results

Among all women, childbirth was associated with sickness absence (HR 1.8; 95% CI 1.5-2.2) and among those who were hospitalised year 1-2 after childbirth an even higher HR of sickness absence was found (HR 2.4; 95% CI 2.0-2.9), compared to women not giving birth and with no hospitalisation.

Among women who delivered, hospitalisation both before and after the childbirth was associated with a higher risk of future sickness absence (HR 1.8; 95% CI 1.4-2.2) compared to women giving birth with no history of hospitalisation. Familial factors seem to influence the association between giving birth, hospitalisation and sickness absence.

Conclusions

In this study childbirth was associated with future sickness absence, and the association was stronger in presence of hospitalisation. Women hospitalised before and/or after giving birth had higher risk of future sickness absence, that is, there was a strong association between morbidity and future sickness absence.
Sickness absence and disability pension in relation to childbirth: a cohort study of Swedish twin sisters


Background

Pregnancy, delivery, and postpartum may involve an increased physical and mental stress followed by increased morbidity, which may in turn lead to work incapacity. The aim of this study was to compare the occurrence of sickness absence (SA) and disability pension (DP) among twin sisters who had or did not have a delivery.

Methods

The population-based cohort study included all 6,323 female twins born in Sweden 1959-1990. Register data was used to follow the participants regarding the occurrence of SA and DP in relation to childbirth for the period 1994-2010. Average number of SA and DP days per year was calculated in relation to the year of the first delivery. If not giving birth, the average number of SA and DP was calculated in relation to the year the twin sister gave birth. The importance of genetic and environmental factors for the occurrence of SA and DP was investigated in the analyses of twin pairs discordant for delivery.

Results

Fifty-two percent of all participants had a first delivery during 1994-2010. Except for the year of delivery, the average number of SA days per year was similar among women who gave birth and who did not. The average number of DP days per year was significantly higher in women who did not give birth. Analyses of discordant twin pairs revealed that different levels of DP between the groups seem to be explained by genetic factors. Diagnosis-specific analyses showed that DPs due to mental diagnoses were more common among women who did not give birth, whereas DPs due to musculoskeletal diagnoses occurred more often among women who had a delivery.

Conclusions

Occurrence of SA was similar among women who gave birth and women who did not. Women who did not give birth had significantly higher levels of DP suggesting health selections into childbirth.
Sickness absence before and after breast cancer surgery

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Background
Breast cancer is the most common type of malignancy among women of working ages, stressing the need for knowledge about sick-leave patterns. Our aim was to describe sickness absence both before and after breast-cancer surgery, also taking treatment, and time period (before and after the introduction of stricter rules for sick-leave benefits in 2008), into consideration.

Methods
A longitudinal cohort study, including 970 women who when aged 20-63 years had a first breast-cancer surgery in Stockholm, Sweden, in 2007-2009, with no known distant metastasis, pre-surgical chemotherapy, or previous breast cancer diagnosis. Linked data from the Social Insurance Agency, the breast cancer register, medical records, and the National Board of Health and Welfare, were used. Descriptive statistics were computed and multinomial logistic regressions were used to estimate the crude and adjusted odds ratios (OR) with 95% confidence intervals (CI) of sickness absence the third year following breast cancer surgery, by chemotherapy, and surgery date.

Results
At the time of surgery, 13% had disability pension for full or part time, and 3% had been sickness absent for ≥90 days. In the year following surgery, 15% had no sickness absence. In the third year after surgery, most women (66%) had no sick leave or disability pension. Women who received chemotherapy had higher OR for having 1-89 sick-leave days during the third year after surgery (OR 1.97, 95% CI 1.32-2.92) and for ≥90 sick-leave days (OR 1.90, 1.07-3.36), respectively. Women who had surgery after the rule changes in 2008 had higher OR for sickness absence ≥90 days compared to women who had had surgery before the new rules.

Conclusions
Most women had no sick leave three years after breast cancer surgery. Chemotherapy and surgery after the introduction of stricter sick-leave rules were associated with longer sickness absence three years later.
Pregnancy – physiological condition or disease?

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**Background**

Labour law legislation in Slovenia sets forth regulations (Rules) defining the compulsory conditions for the employers to protect pregnant workers’ health. Nevertheless, we still register excessive proportion of work absence due to pathological pregnancy, particularly in the early phase. The concept of pathological pregnancy includes everything from mild physiological problems, which urge a pregnant woman to seek consultation or examination, to serious life and health-threatening conditions, which are combined in statistical processing, so the analysis of statistical data makes it impossible to identify the severity of the condition.

**Methods**

With our retrospective analysis of data we wanted to define the reasons for the identified deviations. On the basis of our results, we recommend the measures for the reduction of temporary inability to work during pregnancy.

**Results**

In 2014, there were 3609 cases of temporary inability to work due to pregnancy-related conditions (0.6% of total absenteeism due to disease or injury outside work), which resulted in the loss of 247,446 calendar days (3.2% of all lost days due to disease and injury outside work). On average, temporary inability to work lasted 68.6 days. In the active female population the incidence of pathological pregnancy was 1.04%. Irrespective of the fact that health care of women at a primary level in Slovenia is uniformly distributed, in 2014 we recorded huge deviations in the incidence and duration of temporary inability to work due to pathology in pregnancy among individual regional units. Incidence among various regional units ranged from 0.3% to 1.7%. The average duration of sick-leave ranged between 47 to 116 days.

**Conclusions**

By consistently applying the existing legislation, which governs health protection of pregnant women by gynaecologists, personal and appointed physicians, who propose and decide about temporary inability to work, absenteeism resulting from pathological pregnancy would be reduced.
Interventions to enhance work participation of workers with a chronic disease: a systematic review of reviews.

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Background

Increasing numbers of people in the working population are affected by a chronic disease. Due to this chronic disease, people experience difficulties in meeting physical or psychosocial work demands, which negatively affects their work participation. Therefore, we provided an overview of the available interventions which proved to be effective in enhancing work participation in people with a chronic disease.

Methods

A search was conducted in PubMed, EMBASE, PsycINFO, CINAHL and Cochrane Library, searching for systematic reviews published between January 2004 and February 2015. Systematic reviews were eligible for inclusion if they included multiple populations having different chronic diseases and described an intervention aimed at enhancing work participation. The quality of the included reviews was evaluated using the quality instrument AMSTAR. Results of reviews of medium and high quality were described in this review.

Results

The search resulted in nine reviews, five of which were of medium quality. No high quality reviews were retrieved. One review reported inconclusive evidence for policy-based return to work initiatives. The four other reviews described interventions focused on changes at work, such as changes in work organisation, working conditions and work environment. Of these four reviews, three reviews reported beneficial effects of the intervention on first return to work (RTW) (HR: 1.55, 95%CI: 1.32-2.16), higher RTW rate (OR: 2.2, 95%CI: 1.04-4.80), faster RTW (OR: 1.9, 95%CI: 1.18-3.10), maintaining employment (OR: 0.58, 95%CI: 0.34-0.99) and increasing employment rate (OR: 5.61, 95%CI: 2.23-14.09).

Conclusions

Interventions examined in multiple populations having different chronic diseases were mainly focused on changes at work. The majority of these interventions were reported effective in enhancing work participation, indicating that interventions directed at work could be considered as a generic approach in order to enhance work participation of people with a chronic disease.
Work disability after out-of-hospital-cardiac-arrest in Maribor, Slovenia

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Issue
We have analyzed the success of cardiopulmonary resuscitation (CPR) after after out-of-hospital-cardiac-arrest (OHCA) in Maribor Emergency medical services (EMS), which covers about 200,000 people, in conjunction with work disability. We have reviewed a number of CPR and survival rates from 2006 to 2009 and reviewed the work status of patients with CPC (cerebral performance category) 1 in July 2015.

Description
We used retrograde analysis to review OHCA survival rate from 8.6. 2006 to 19.12.2009 and reviewed the current status of patients, released from the hospital after OHCA rated CPC 1. We analyzed their employment status before and after OHCA. Inclusion criteria were CPC 1 at the discharge from the hospital, exclusion criteria were incomplete data.

Results
During the research we conducted 296 CPR’s. The survival rate was 47.4%, survival to hospital discharge rate was 23.6%. 34 (11.5%) patients left the hospital rated CPC 1. We included 31 patients. 2 patients passed away, one 5 years after OHCA, the other 18 months after OHCA, both were already retired before OHCA. The average age of the survivors was 55.5 years, same as that of all revived (55.5 years).

Detailed results – number and percentages:
- still active without limitations 2 (6,5%),
- still active- limitations before OHCA 3 (9,6%),
- still active- limitations after OHCA 2 (6,5%),
- regularly retired after OHCA 7 (22,5%); average work time after OHCA was 46 months,
- disability pensioners after OHCA 3 (9,6%),
- unemployed 4 (12,9%),
- retired before OHCA 10 (32,2%),
- incomplete data 3 (9,6%).

Lessons
The data that we have reviewed suggest that the results of Maribor EMS do not differ from the rest of Europe, according to ERC guidelines. We can see that a significant number of people can still be included in the working process after OHCA.
Returning to work after an Acute Coronary Syndrome


Background

Failure, or only delay, in the return to work (RTW), could stall a successful healing process into a doomsday situation ending in depression, weight gain and job loss. The aim of this study is to determine if the time to work resumption respects a guideline or is delayed by any failure in patient’s health or management.

Methods

We analysed the factors influencing a return to work which exceeds the French guideline schedule of RTW calling at 90 days for the heaviest jobs, in 216 independent workers, shopkeepers or craftsmen, who underwent hospitalisation for an opening Acute Coronary Syndrome (ACS). Those not returning to work at 90 days, had a medical examination, a self report questionnaire. Factors influencing the RTW, occupational and cardiac features, were investigated.

Results

The mean return time was 93.3±103.7 days, 95CI %[78.6;108.0] and significantly longer for CABG: 154.9 days, 95%CI =[103.5;206.2] (p=0.02). 93 had not RTW yet at 90 days, 75 were eventually examined, 40 with various disabilities preventing RTW had a 169±89 days sick-leave, but 30 (32.5%) without disabilities had a longest sick-leave 226±140 (p=0.05); 5 could not be classified. This delay was identified as a shortage in information of the GP and patients from the cardiologists. Moreover only one patient on 3, could join a rehabilitation setting. Patients overtaking their occupational threshold (in METs) at the stress test, were more likely to have a lighter job ( p<0.002).

Conclusions

We recommend that the cardiologist should give an advice on the patient’s abilities within 2 months of the ACS to the first line doctors. One patient on three standing over the guide line schedule might largely benefit of an earlier advice. A rapidly growing cardiac rehabilitation setting program, for out patients, as implemented in Northern Europe, could help to resume work.
Prognostic factors of return to work after traumatic or non-traumatic acquired brain injury: a systematic review

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Background
About 40% of patients with acquired brain injury (ABI) return to work (RTW) within two years after injury. Little is known concerning factors related with RTW for this population. Therefore, the aim of the study was to examine and to determine the level of evidence of prognostic factors of RTW after traumatic and non-traumatic ABI.

Methods
A systematic database search was performed in PubMed (2008-2014), utilizing terms for ABI and RTW. Studies, retrieved by the search were selected if they met the inclusion criteria. The methodological quality of selected studies was assessed and level of evidence was determined, based on established criteria.

Results
27 studies were included. After traumatic ABI, there is strong evidence that low level of education, unemployment and rehabilitation length of stay are negatively associated with RTW while high level education is positively associated with RTW. Furthermore, independence in activities of daily living is positively associated with RTW after non-traumatic ABI. Cause of stroke (i.e. ischemic or haemorrhagic) turned out not to be associated with RTW. A clear tendency was deduced from the studies that conscious state in the Emergency Department (recorded by the Glasgow Coma Scale) is not associated with RTW after traumatic ABI.

Conclusions
This study provides strong evidence that personal factors (like education level) after traumatic ABI and activity-related factors after non-traumatic ABI are significantly associated with RTW.
Factors associated with work participation of people with a chronic disease; study of Dutch guidelines


Background
As dealing with a chronic disease negatively affects employment, attention to work participation should also be a factor during curative treatment. In the Netherlands it has become customary to make work participation a theme in diseasespecific guidelines. We examined these guidelines as part of developing an all-encompassing guideline, which focuses on generic aspects of supporting people with a chronic disease in retaining or resuming their work. Our aim was to synthesize evidence presented in Dutch guidelines regarding factors associated with work participation of people with a chronic disease, which are relevant irrespective of underlying diagnosis.

Methods
Four Dutch guideline databases (Diliguide, databases of NVAB and NVVG, and GGZ-guidelines) were examined to identify guidelines that focused on a specific chronic disease and incorporated work participation. Evidence presented regarding factors associated with work retention or work resumption was extracted from these guidelines. Factors that showed similar results in multiple diseases, were considered disease-generic.

Results
In total, 23 disease-generic factors were retrieved from 31 guidelines. These comprise aspects of sociodemographical (e.g. age, gender), psychosocial (e.g. positive expectations, anxiety), somatic (e.g. co-morbidity, fatigue), work-related (e.g. physical work demands, support by employer/colleagues) and environmental (e.g. social support) dimensions that either positively or negatively affect work participation.

Conclusions
Overall, 23 factors were identified that are relevant for work participation of workers with a chronic disease, which could be considered irrespective of underlying disease. These disease-generic factors provide insight for health professionals involved in supporting people with a chronic disease who are at risk for reduced work participation in maintaining or resuming their work.
Extended occupational rehabilitation

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Issue

The occupational rehabilitation is an important part of the wholesome rehabilitation of persons with serious injuries or diseases. They mostly suffer from a brain injury (through haemorrhage, trauma, stroke, tumours).

Description

The activities are being carried out throughout the evaluation processes, extended rehabilitation, and workplace training. They consist of programmes of managing and reducing difficulties in the cognitive, behavioural, emotional, social areas and in physical activities.

Results

There were 58 persons (32 men, 26 women) included in the extended rehabilitation from January 2012 to September 2015. 79,3% were employed, the others either unemployed or enrolled in an educational programme. 62,1% were between 31 and 50 years old, while 18,9% were younger and 19% older. 81,1% endured an acquired brain injury, 10,3% had a mental illness while 8,6% suffered from other causes. 55,2% were included in the process of workplace rehabilitation. On the whole, 17,2% were estimated fit for full-time work and 43,3% for reduced working hours. Besides, 27,6% were estimated incapable of work and in 10,3% further education was suggested.

Lessons

The length of the activities can vary from few months to one year, exceptionally to two years, and are individually suited to the patient. At first they are being carried out in work cabinets and include the development of working abilities, endurance and productivity, cognitive training, psychological and psychotherapeutic treatment, functionality improvement, planning of home-based activities. The next step is analysing the possibilities of finding a suitable employment including individually suited working environment, accessories and the working process itself. This is followed by training at real workplace. The person is further supported by our expert and a mentor in the real workplace. The rehabilitation is finished either when we assess sufficiently stable work functioning or when we can clearly establish that the person will not be capable of work.
Sickness absence among young adults with mental disorders

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Background
Mental disorders are a leading cause of young people’s exclusion from the labour market in Sweden, with sickness benefits steadily increasing. A greater focus on interventions related to return to work within the health care system has been warranted. Little is known about factors related to sickness absence for young people with an ongoing treatment in psychiatric health care. The aim of the present study is to investigate such factors related to diagnose and treatment interventions.

Methods
The study is conducted in two parts. Part one consists of data from the journals system for 1100 individuals, age 19-29 years, registered at two outpatient units in Göteborg, Sweden by 01 March 2015. Included variables are age, gender, diagnose, occupation, type of benefit from the insurance system, care plan and interventions. Part two consists of personal interviews with 100 randomly chosen individuals including more extensive information on symptoms, the sick leave process and assessment of activity limitations related to work. Participants are divided into three groups; no activity-limitations, on sickness benefit, and on activity compensation. Differences between groups concerning other included variables will be analysed with χ2-test.

Results
Preliminary results (215 individuals) showed that anxiety and depressive disorders were more frequent in the group with sickness benefit (66%), whereas hyperkinetic and autistic disorders were more common in the group with activity compensation, as well as in the working/studying group (63% respectively). Gender differences were only found among sickness benefits (84% women). In the same group the majority had a sickness period for 180 days or more. A care plan was registered in around 50% of cases. Medications were the most frequent treatment option in all groups (>80%).

Conclusions
Further exploration on relations between diagnostic features and activity limitations are needed in order to adapt rehabilitation interventions to individual needs. Elaborated results will be presented.
Suicidal behaviour from unemployment to genetic polymorphisms

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Background
Aetiology of suicidal behaviour could be divided into genetic predisposition and environmental factors. Especially complex interactions between two groups of factors could influence suicidal behaviour.

Methods
A case-control design was used, involving 90 cases (suicide victims) and 90 age-sex matched living controls selected from population. Data were collected by means of structured interviews. Further BDNF Val66Met polymorphism was genotyped on 560 DNA samples from 359 suicide victims and 201 control subjects collected on autopsy from unrelated Caucasian subjects.

Results
Among socioeconomic factors, unemployment rate ranked as the most powerful predictor of suicide and an increase of one unit in the unemployment rate increased regional suicide rate by 2.21 (β=2.21, 95% confidence intervals [CI]=1.87-2.54, P<0.001). Further, significant differences were observed between a group of suicide victims (n=90) and controls (n=90) regarding reported work failure (p<0.001), job loss (p<0.05) and financial problems (p<0.05) in a month prior to suicide or interview in a psychological autopsy study. On the other hand, neurobiological studies reviled different genetic polymorphisms associate with suicidal. Multiple lines of evidence indicated also that impairment in BDNF expression could be found in patients with suicidal behaviour and suicide victims. Genetic study schowed that the frequency of the combined Met/Met and Met/Val genotypes and the homozygous Val/Val genotype was significantly different (p<0.05) between the female suicide victims and female controls, between the female suicide victims who used violent suicide methods and female controls, and between all included suicide victims with or without stressful life events.

Conclusions
Factors on social and neurobiological levels are associated with suicidal behaviour indicating complex, interdisciplinary, preventive measurements, employment status being an important environmental factor.
RTW coaching interventions in reducing sick leave and preventing relapse for employees with psychological or musculoskeletal problems


Background
In Belgium, 413,000 people are currently enjoying work incapacity benefits, over 300,000 for a period longer than 12 months (invalidity “pension”). This drain of labor force towards incapacity benefit increases every year. Psychological problems (33%) and musculoskeletal problems (31%) constitute the largest part of legitimating diagnoses, and their share keeps growing. Literature indicates that the longer a person is on work incapacity, the lower the motivation and therefore the more difficult it becomes to return to work. To secure the Belgian social security system and welfare, prevention and intervention are crucial. Today, the problem of sick leave is constrained mostly through control mechanisms, medical consultations and reports. The effectiveness of coaching programs for disabled employees has rarely been examined. The Landsbond der Christelijke Mutualiteiten has now set up a coaching project under the name “inwerkcoaching” to study its effects. The methodology relies on a paramedic collaborator of the medical LCM team that coaches work disabled insured members, under supervision of an insurance physician. There is a permanent exchange of information between the insurance physician and the inwerkcoach to provide and support adequate measures in RTW strategy. The coaching starts soon after the start of sick leave, and far in advance of the “normal” medical control consultation by the insurance physician. The effectiveness of this methodology is being measured in a randomized controlled trial in collaboration with the KU Leuven.

Methods
Members of LCM on work incapacity benefit with psychological or musculoskeletal problems (aged<60 years) were selected immediately after receiving their sick note, a medical diagnosis from their GP or treating physician. Selected members were randomly divided into two groups: A) Usual care and B) Usual Care + inwerkcoach-intervention. Inwerkcoach-intervention was implemented as follows: 1. ICF-based, face-to-face, semi-structured interview; 2. personal support and advice; 2. possibility of follow-up consultations. Methodology based on empowerment, solution focused coaching, occupational bonding. (The inwerkcoach is an occupational therapist). Together with the client the inwerkcoach clarifies the real motivations, the (im)possibilities for adapting work situation, ICF defined environmental and circumstantial obstructions, the negotiation possibilities, the inactivity-traps. The inwerkcoach and client elaborate towards a path to RTW. The inwerkcoach-intervention is absolutely non-medical and only aims at discussing the possibilities. During the process, information is exchanged with the insurance physician for cause of legitimation of the incapacity benefit and also for focusing the coaching process to those cases and situations that will benefit
from a medical point of view. Outcome measured: return to work (sick-leave days), relapse, partial return to work, quality of life (SF36) and self-efficacy. This study tries to present an sustainable model in every day practice. The study has a near-RCT design to give reliable and quantitative results.

Results
Results as they are now available will be presented (12 months results if presented at EUMASS congress, with all the statistical details). 334 persons included (169 interventions). Interim results (6 months follow-up) show a decrease of 12% in sick-leave days, an increase in quality of life and self-efficacy.

Conclusions
The results of 12 months follow-up will be analyzed at the end of 2015. They will give information about sick-leave days, relapse, partial return to work and quality of life and self-efficacy.
Is the “brainwork intervention” effective in reducing sick leave for non-permanent workers with psychological problems?

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Background

Among the working population, non-permanent workers with psychological problems including unemployed and temporary agency workers and workers with expired fixed-term contracts are a particularly vulnerable group at risk for sickness absence and prolonged work disability. Interventions which effectively enhance return to work (RTW) on these workers are needed. A RTW intervention called “Brainwork” was developed to improve work participation through an activating approach, which means that in the early stage of sick leave, the workers are encouraged to engage in physical exercise and undertake activities aimed at regaining control and functional recovery while job coaches actively support their search for jobs. The main aim of this study was to assess the effectiveness of the “Brainwork Intervention” in reducing the duration of sick leave for non-permanent workers with psychological problems compared to usual care over a six-month follow-up.

Methods

In a controlled clinical trial, we compared the “Brainwork Intervention” (n=164) to usual care (n=156). The primary outcome was duration of sick leave. The secondary outcome was number of hours of paid employment during the follow-up period. Cox regression and linear regression analyses were performed.

Results

The “Brainwork Intervention” resulted in a non-significant reduction of the duration of sick leave compared to usual care (171 days versus 185 days; HR = 1.34; 95% CI 0.91–1.97; p=0.14). For those working (intervention group n=41 and control group n=43) during the six-month follow-up, the mean number of hours of paid employment was significant higher in the usual care group (443 hours versus 257 hours; p =
0.005). When taking all the 320 participants into account, there were no significant differences between the groups regarding the mean number of hours of paid employment.

**Conclusions**

In the short-term the “Brainwork Intervention” as performed did not result in a significant reduction of the duration of sick leave compared to usual care.
The Effect Of Supported Follow-up After Occupational Rehabilitation On Return-To-Work. A Randomized Controlled Study

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Background

Transfer from on-site occupational rehabilitation programs to off-site community based RTW efforts is considered a weak link in the rehabilitation chain. This study investigates an occupational rehabilitation program where transfer is strengthened by low-cost supported follow-up delivered by an on-site RTW coordinator after the participant has returned home. The main objective is to see if supported RTW follow-up prescribed directly after administering an occupational rehabilitation program effects return-to-work.

Methods

A randomized controlled study included participants on sick-leave over 8 weeks with common mental disorders, chronic pain or chronic fatigue conditions. After 3 ½ weeks of Acceptance Commitment Therapy (ACT) based occupational rehabilitation, participants were randomized to either supported follow-up or a control group. Both groups received RTW follow-up as usual according to Norwegian legislation. In addition, the intervention group received monthly supported follow-up via telephone for 6 months. Main outcome was return to work categorized as paid work ≥1 day per week (yes/no).

Results

There were 213 participants of average age 42 years old. Main causes for sick-leave were psychiatric disorders (38%) and musculoskeletal disorders (30%). The odds for the intervention group being in work ≥1 day per week increased by 151% during the whole period (Odds ratio (OR) 2.51, 95% confidence interval (CI) 1.67 - 3.77). The equivalent odds increase for the control group was 29% (OR 1.29, 95% CI 0.87 - 1.91). The odds of being in work ≥1 day per week was for the intervention group 95% higher at end of follow up.
(OR 1.95, 95% CI 1.107 - 3.42) compared with the control group.

Conclusions

Participants receiving supported RTW follow-up had a higher chance of being in paid work ≥1 day a week over the first year following rehabilitation than the control group. Adding a low cost regime of supported follow-up after occupational rehabilitation augmented the effect on return-to-work.
Cognitive behaviour therapy and return-to-work intervention for sick-listed primary care patients with common mental disorders

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Background
About one third of patients visiting primary care (PC) in Sweden suffer from mental disorders, primarily anxiety, depression, insomnia and stress related disorders. These disorders also produce most long-term sick leaves in the western world. Research has shown that Cognitive Behavior Therapy (CBT) is an effective treatment of anxiety, depression and insomnia, but little is known about how to treat stress related disorders and how to facilitate return to work after sick leave. Some studies have shown effect by using CBT-based “return to work programs” (RTW). Aim The aim of this study is to evaluate an intervention to reduce sick leave among patients with mental disorders, to implement evidence based CBT for patients with anxiety, depression and insomnia and to evaluate a treatment for stress related disorders.

Methods
A randomized controlled trial comparing CBT (n=65), RTW (n=65) and a combination of the two (n=80) for patients in PC on sick leave due to anxiety, depression, insomnia or stress related disorders. Patients were recruited and treatment performed at 4 PC centers in Stockholm. Primary outcome was days on sick leave and secondary outcome emotional symptoms. Measurements were repeated after treatment and at 1-year follow-up.

Results
Participants in all conditions reduced days on sick leave after treatment. Patients receiving RTW and the combination treatment had fewer days on sick leave the year after treatment start than patients receiving CBT. Participants in all conditions had a large reduction of emotional symptoms (within group Cohen’s d range 1.7-2.0). CBT had significantly bigger effect on emotional symptoms than RTW. Effects were as large for stress related disorders as for anxiety, depression and insomnia.

Conclusions
Data support RTW to be the most effective treatment to reduce sick leave, and CBT to be most effective on reducing emotional symptoms. Data from follow up and additional analyses can spread light on how to combine these treatments to obtain best treatment effects and minimal costs for sick leave. Treatment of stress related disorders were as effective as treatments of anxiety, depression and insomnia, suggesting this new treatment is effective.
Cost-benefit study of Slovenian enterprises for persons with disabilities and employment centres

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Issue
The topic presents benefits and costs of forms of social enterprises – Enterprises for PwD and Employment centres as two main forms of social economy in Slovenia. Persons with disabilities in Slovenia are mainly employed on the open labour market (80%), social economy represents approximately 20% of all employment of PwD. Work in employment centres is the direct outcome of Slovenian employment rehabilitation services.

Description
The Slovenian thematic study was prepared in 2013 by Development Centre of Employment Rehabilitation at the University Rehabilitation Institute, Republic of Slovenia. The grounds for the study are based on the Slovenian Court of Audit Report recommendations.

Results
State-aids for enterprises for PwD were reimbursed through the state with taxes from 95-114% from 2008-2012. In years of economic crises taxes paid by enterprises were lower, whilst in economic prosperity were higher (114%) than stateaids. For employment centre different methodology was used due to the specifics, but it turned out that 1 € (100%) invested in employment centre produced 152% benefits. Beside financial study assessment of quality of life, health, work satisfaction, and relationship between prior and after to employment in the small sample of employees (N = 35) in employment centres was being evaluated. Results revealed participants to be mostly satisfied with all the assessed areas of their (work-) life in employment centres.

Lessons
Final conclusion is that the costs of supporting the enterprises and employment centres are fully beneficial for the state and for persons with disabilities and should be promoted also in the future as one of the main options for employment of persons with disabilities with severe barriers to the employment.
Return to work at occupational health centre in Slovenia

1. Brigita Peternelj, MD - Medicep d.o.o., Šenčur, Slovenia; 2. Irena Manfredo - Medicina dela, prometa in športa d.o.o., Zagorje Slovenia; 3. Maja Petrovič-Šteblaj - ZD Radovljica, Radovljica, Slovenia

Issue

RTW at occupational health centres in Slovenia is not systematic included in an ordinary practice.

Description

RTW requires personalised multidisciplinary approach with interventions at work. Due to increasing number of cases with long-term sick leave need for unique approach is essential. It covers ill or injured workers, their employers, coworkers and society as a whole. Coordinator of RTW process in our schedule is OH specialist, collaborators are ill/injured worker, his/her employer, GP and other experts / health insurance professionals, psychologists, occupational therapists.../. 

Results

RTW project is divided into three phases. First phase is problem defining which includes contact between OH specialist and employer, followed with medical exam of ill/injured worker. Crucial issue of this phase is worker’s motivation for return to work, explored with standardised questionnaire . If not project stops at this stage. Second phase- implementation of RTW project in the workplace , starts if worker will stick to the schedule. Stakeholders are worker, OH specialist, human resources manager, safety engineer and worker’s department manager. Aim of this team is to adapt the conditions at work-place to worker’s disability. Record of the meeting is transmitted to GP and health insurance professional . Worker starts to work at adapted workplace under supervision. Third phase is evaluation of the project. First assessment of worker’s success in achieving results is conducted after one month and if necessary after two or three months again. Yield of the process is full workability and return to work or referral to Disability Commission.

Lessons

We have created a protocol as a proposition for a pilot study to collect an evidence and to use it as a common approach after accepting it in doctrine . Experience is based on authors’ voluntary approach in their own occupational health centres.
MAPI (maintien dans l’activité du professionnel indépendant): an original and specific prevention’s tool for selfemployed workers

Perrot Pascal, MD PhD - Régime Social des Indépendants RSI France

Issue
A french original project to prevent self-employed workers affected by illness from stepping out working life

Description
The MAPI is an original device which aims at preventing the self employed people from leaving working life. There are 3 main steps in a MAPI process: the first one is based on an early detection of the risked cases, which may imply for the SEW, long-term sick leave or ask for social assistance. Moreover, the process is established on the one hand, on an internal coordination between every service concerned (contributions collect service, sanitarian and social action...), and on the other hand on an external one between the stakeholders (PRITH, MDPH...). The last and the main step of the MAPI, is to be able to propose a rehabilitation process to the SEW : a training, an adaptation training for individual positions or status change. The last one imply a move from SEW to an employee position.

Results
In 2014, 1000 cases were detected and eligible to the MAPI. On a long term run regarding these cases, the MAPI will enable to avoid 2M of disability and sickness allowances, but also to collect 1,7M euros of contributions. The net profit for the social protection scheme will almost reach 3M euros.

Lessons for successful tool:
- a good internal coordination between the different services
- an appropriate coordination between the RSI and the stakeholders
- the SEW’s involvement
Return to work

Mehrhoff, Friedrich, PhD - German Social Accident Insurance, Germany

Issue

Return to work

Dr. iur. Friedrich Mehrhoff, Director of Rehabilitation Strategies in the German Federation of Social Insurers of Work Accidents and Occupational Diseases/DGUV (www.dguv.de)

Description

Since 2014 the International Social Security Association (ISSA) in Geneva provides “Guidelines on Return to Work and Reintegration” (RTW) for implementation of their members all over the world, which are the social security institutions, who cover and pay benefits. The author acts as chair of the guideline-group and facilitator of ISSA seminars.

Results

During the lecture the audience will get an overview of the content and the current implementation of the guidelines in Europe with the special focus on incentives and disincentives based on the jurisdiction in Germany and a person-driven, holistic, participatory, early intervention, workplace-oriented and collaborative approach.

Lessons

The lecture will highlight the chances and challenges of the fact that physicians working in or for social security institutions play an important role in RTW in the context to the fight against chronic diseases in Europe. RTW needs an activating strategy with key-measures of prevention and rehabilitation based on ICF and CRPD, which will be presented in Ljubljana.
The effect of labour market transitions on individual health


Background

Unemployed persons are likely to face a set of barriers that stops them from taking on available work or managing to keep their jobs. One central problem in that respect is health impediments. It is well documented that unemployed persons are on average less healthy than employed persons. However, the underlying causalities are not clear. We investigate the effects of labour market transitions on individual health.

Methods

We use data from the German “Panel Study Labour Market and Social Security” (PASS) in combination with administrative data on employment histories (IEB) to test our hypotheses. In order to determine causal effects of labour market transitions we use a combined propensity score matching difference-in-difference approach. We compare health developments for physical as well as mental health between persons who suffered from Job loss to health developments of persons who stayed employed but had similar propensities for Job loss. We conduct the same analyses for the “treatment” reemployment.

Results

We find no significant results for job loss, despite the large descriptive differences in health between those who lost a Job and those who stayed employed. Using propensity score matching in order to compare those who found a new job to persons with similar characteristics and propensities of finding a job, who remained unemployed, we get significant results for both mental and physical health. For mental health, the results confirm our assumption: re-employment has a positive effect on mental health. Contrary to what we expected, physical health declines with re-employment.

Conclusions

The effect of (un-)employment on self-reported health is rather ambiguous. According to our analyses not all employment is beneficial to individual health. Refining our analyses by taking indicators for job quality and whether the job fits the qualification into account, should help us to understand the results better.
Efficacy and cost-effectiveness of Acceptance And Commitment Therapy and a Workplace Intervention for workers on sickness absence

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Background

Mental disorders including depression, anxiety, and adjustment problems are currently the most common reason for sickness absence in Sweden. Evidence-based clinical treatments such as Cognitive Behavioral Therapy have resulted in significant and sustained improvement in clinical symptoms. However, the effect on duration of sick leave is variable, even indicating these interventions might prolong sick leave. Combining workplace interventions and psychological interventions might have a potential to enhance return to work for individuals on sickness absence. The aim of the present study was to compare the effects of a brief Acceptance and Commitment Treatment (ACT) intervention, a workplace intervention (WI), and ACT+WI with Treatment As Usual (TAU) on improved sickness absence, self-rated work ability, reduced mental health problems as well as cost effectiveness.

Methods

We designed a randomized controlled trial with adult participants (n=359, 78.4% females) on sickness absence from work due to mental health problems. Participants were allocated into one of four treatment groups: 1) ACT, 2) WI, 3) ACT and WI in combination and 4) Treatment as Usual (controls). Mixed-effects Model Repeated Measures analysis was used to evaluate possible differences in outcome between interventions at 12 months follow up. A cost-effectiveness analysis was conducted to investigate the clinical and economic impact of the three interventions in comparison to TAU. To evaluate this, costs of the different interventions and the costs for days on sick-leave during the follow-up year were combined. Health outcome used was the Quality-Adjusted Life Year (QALY), generated using EQ-5D data collected during the trial.

Results

Data from the 12-month follow-up will be presented including evaluations of the intervention outcomes in terms of sickness absence and mental health, as well as cost effectiveness.

Conclusions

Will be presented when data is analyzed.
Job matching research in the context of return to work and organizational psychology - A scoping study

1. Marina Nützi - 1) Swiss Paraplegic Research, Nottwil, Switzerland 2) Department of Health Sciences and Health Policy, University of Lucerne, Switzerland; 2. Schwegler U - 1) Swiss Paraplegic Research, Nottwil, Switzerland 2) Department of Health Sciences and Health Policy, University of Lucerne, Switzerland; 3. Trezzini B - 1) Swiss Paraplegic Research, Nottwil, Switzerland 2) Department of Health Sciences and Health Policy, University of Lucerne, Switzerland

Background

Successful and permanent return to work (RTW) requires that a person’s work-related capabilities and characteristics are compatible with the demands and characteristics of the job, hence the importance of job matching in vocational rehabilitation (VR) programs. So far, job matching has mainly been investigated in organizational psychology, whereas in the RTW context, surprisingly, there seems to be a dearth of studies on this topic. A comprehensive literature review that synthesizes conceptual and empirical research on job matching from both of these fields is currently missing. The present study provides such a comprehensive overview as a basis for identifying research gaps and discussing their consequences for VR practice.

Methods

We conducted a scoping study using the databases PubMed, Medpilot, CINAHL, PsycINFO, PsychARTICLES, PubPsych, Business Source Premier, and EconLit. Articles, dissertations, and book sections published between 1945-2015 and referring to job matching were selected and analyzed.

Results

284 out of 310 included publications originated from the field of organizational psychology, mainly investigating the relationship between different types of fit (e.g. person-job fit, person-organization fit) and their outcomes (e.g. job satisfaction, turnover intention). Only 26 contributions originated from the RTW context. The majority of these dealt with the development of generic job matching tools for VR. Due to their generic nature, however, these tools lack specificity for VR practice. In addition, the RTW literature lacks contributions that would provide a detailed description of the job matching process in VR practice.

Conclusions

While in the RTW context there is indeed a dearth of empirical knowledge on job matching, research in organizational psychology almost exclusively focused on non-disabled individuals. Integrating the knowledge from organizational psychology into the RTW field may be essential to develop more suitable job matching applications for VR practice as a basis for promoting sustainable work reintegration of persons with disabilities.
Motivational interviewing by professionals working in the field of disability evaluation: a qualitative study


Background

Motivational interviewing (MI) is a directive, client-centered counseling style for eliciting behavior change (Miller and Rollnick 2002) and is suited to improve a patient’s motivation and overcome a patients’ resistance to make plans or discuss opportunities. The feasibility of MI to change behavior has been shown in many studies, performed in different settings and by health professionals such as family physicians, nurses and dieticians. Medical doctors frequently act as counselors using MI, often in short sessions, with positive effects (Rubak et al 2005). Several teams of professionals, including insurance physicians, at offices of the Dutch Social Security Agency (SSA) working in the field of disability evaluation, received post-graduate training in MI. To date we do not know how these professionals evaluate the use of MI in daily practice. The aim of this qualitative study is to explore experiences by professionals working in the field of disability evaluation who received a short MI training in teams.

Methods

By purposeful sampling, 17 insurance physicians; labour experts and vocational rehabilitation professionals of the SSA were interviewed face-to-face by two researchers, using a semi-structured questionnaire. The interviews were audiotaped. After transcribing, data were analysed by two researchers using MaxQDA software using open coding and axial coding. Selective coding was performed to interpret any overarching concepts.

Results

Preliminary results show experiences with MI focus around several themes including its effect on the professionals’ communication skills, perception professionals have of their own role, effects of MI on clients, applicability of MI in clients, feasibility of MI in the organisation, and its effect on communication in teams.

Conclusions

Professionals working in the field of disability evaluation have a variety of different perceptions and experiences regarding the use of MI in daily practice. We expect the results will help to further develop training in MI in this field.
Assessing individual needs for rehabilitation in inter-professional teams

1. Bo Rolander - Futurum – academy for Health and Care, Region Jönköping County, Sweden; 2. Pia H. Bülow - School of Health and Welfare, Jönköping University, Sweden

Background

In 2010/2011 a model for assessing individual needs for rehabilitation in inter-professional teams in primary care was launched in the county of Jönköping, Sweden. According to the model the patient meet all required professionals in turn. The next step is an inter-professional team-meeting which is documented in a form including the case history, sickleave, strengths and weaknesses due to education, family, work etc., ending up in questions about individual needs for rehabilitation and the prospective for return-to-work in the short term and in the long run. However, not all health care units use this model.

Methods

To identify different reasons for health care centers to work according to the model, or to choose not to, a survey was accomplished including employees in primary health care working with rehabilitation for people 18-65 years old. The questionnaire comprised of demographic data, and 16 questions with fixed response alternatives and 11 questions with open answers.

Results

The response rate was 49,9% (819 persons). Of these, 523 were excluded because they did not belong to the study group. The final study group consisted of 296 employees representing different professions (physicians, occupational therapists, physiotherapist, psychologist, social workers and nurses). The study reports on cross-sectional data from employees in 27 private and 32 public primary health care units. The statistical analysis shows that employees younger than 45 years are more positive to the inter-professional teammodel than those older than 45 years. This was especially clear for female physicians. The qualitative analysis shows that professionals preferred working in inter-professional teams because they provided a richer, comprehensive picture of the patient and the problem. The disadvantages most commonly mentioned is that the model is time-consuming.

Conclusions

Further investigations are needed concerning relational, processual, organizational and contextual factors to better understand differences in views on assessing rehabilitation needs in inter-professional teams.
Recognition of occupational asthma in Slovenia

ass. prof. Alenka Franko, MD PhD, Clinical Institute of Occupational Medicine, University Medical Centre, Ljubljana, Slovenia

Background

Occupational asthma is one of the most frequent occupational lung diseases. It is defined as a disease characterized by a variable obstruction of the respiratory passages and/or bronchial hyper responsiveness caused by the factors and circumstances typical of a particular working environment. Two types of occupational asthma are distinguished: immunological and non-immunological or irritant asthma. Factors influencing the development of occupational asthma may be high-molecular-weight agents, low-molecular-weight agents and irritant agents. The exposure to allergens and irritants that cause the development of occupational asthma may appear in many occupations and work activities.

The aim of this paper is to present the guidelines for the recognition of occupational asthma in Slovenia and the verification procedure with the focus on finding the association between asthma and exposure to the agents in the workplace.

Methods

The guidelines for the recognition of occupational asthma in Slovenia were set at the Clinical Institute of Occupational, traffic and Sports Medicine and were based on a systematic review of studies and articles and professional experience in the field.

Results

The established guidelines and procedure for the recognition of occupational asthma in Slovenia include diagnosis of asthma by pulmonologist and determination of association between asthma and occupational exposures by a specialist of occupational medicine. The work history which confirms the occupational exposure to allergens in immunological asthma and to irritants in non-immunological asthma is very important. A major test in determining the association between asthma and occupational exposure are serial measurements of peak expiratory flow rate during working period and period while away from work.

Conclusion

The guidelines for occupational asthma were established by specialists of occupational medicine and reviewed by pulmonologists. Although the guidelines for the verification are clearly stated, the implementation of recognition of occupational asthma in practice remains unsolved yet.
Interventions for obtaining and maintaining employment in adults with severe mental illness, a network meta-analysis


Background

People with severe mental illness, such as schizophrenia or bipolar disorder, show high rates of unemployment and work disability. However, they do often have a desire to obtain employment. Initially, people with severe mental illness were placed in sheltered employment or enrolled in prevocational training and volunteer work before competitive employment. However, in the last couple of decades there is a growing interest in vocational rehabilitation interventions focusing on rapid search for a competitive job, with ongoing support provided as needed to get and keep the job, known as supported employment. This method seems to be more effective in employment outcomes, however this intervention is not yet in wide use. Recently, in several studies supported employment is being combined with other (pre)vocational skills training programmes.

Methods

We performed a systematic search to identify relevant RCTs of all types of vocational rehabilitation interventions for people with severe mental illness. Our primary outcome is percent of participants who obtained competitive employment. We will also collect data about other vocational and clinical outcomes. A network meta-analysis enables us to perform direct and indirect comparisons between the interventions. If sufficient studies are available, we will perform several subgroup analyses. We aim to assess and rank the efficacy of these interventions to facilitate competitive employment. This ranking will be helpful for healthcare practitioners and policymakers.

Results

We retrieved 41 relevant RCTs, mostly from the United States. In total 7920 participants are included. The mean age is 36 years old and 63% is male. Most participants are diagnosed with a psychotic disorder like schizophrenia. Altogether, 31 studies focused on (augmented) supported employment. Other interventions are sheltered workshops, clubhouse model and prevocational training (e.g. cognitive training). The follow up duration varies from 3 months to 5 years.

Continued on next page...
Conclusions

Results of the network meta-analysis are expected by the end of 2015.
Process evaluation of an implementation strategy for Individual Placement and Support for adults with severe mental illness

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Background

Individual Placement and Support (IPS) is an evidence-based, supported employment model for individuals with severe mental illness. In spite of its proven effectiveness, implementation of IPS is difficult in the Netherlands. Insufficient collaboration between the stakeholders involved, and lack of finance are important obstacles. Therefore a mental health care provider, the Dutch Social Security Agency, the municipality of Amsterdam and a health insurance company, have taken the initiative to launch a pilot study focusing on removing these obstacles by applying an organizational and a financial implementation strategy. This strategy includes a pay for performance agreement between stakeholders, and agreements related to the organisation and administration for new IPS applicants. In this study we focus on the evaluation of the process of this strategy.

Methods

A qualitative process evaluation will be performed in 2015 in which representatives of the four stakeholders involved will be interviewed. Based on an overview of determinants for successful implementation of innovations in health care we focus the interviews on the four levels of characteristics related to the innovation and the user (Fleuren, 2010). The interviews will be held with both the stakeholders who designed the agreements, and with stakeholders who have to execute these in daily practice. We will explore their experiences, the satisfaction, and the barriers and facilitators for further implementation of the strategy. The interviews will be recorded and transcribed. Text parts will be coded by two different researchers, and patterns in the data will be identified.

Results

The results are expected in March 2016.

Conclusions

We expect that the results of this process evaluation will provide in depth insight about the execution of the organizational and financial implementation strategy for IPS in the Netherlands. This will help to inform policy makers and practitioners about the potential of using such strategy for further nationwide implementation of IPS.
Arrêt de travail pour lombalgie: résultats d’une étude qualitative

1. Martine Morvan - Pr Dupeyron -CHU Nîmes, France ; 2. Odinet-Raulin E - Dr Mercier

Background


Methods

Des interviews structurées comportant 12 items ont été conduites auprès de 80 médecins (médecins généralistes, rhumatologues, médecins du travail, médecins conseils) au cours de 6 sessions de groupes de discussions. Les interviews étaient enregistrées et retranscrites. Les données issues des verbatims ont été codées et analysées par 3 médecins indépendants.

Results


Conclusions

La prescription d’arrêt de travail pour lombalgie aigue ou chronique est influencée par de nombreux facteurs expliquant i) la variabilité des motifs et durées d’arrêt, ii) la faible marge d’action du médecin., iii) la définition de nouvelles pistes d’action probablement institutionnelles.
Sick-leave following carpal tunnel release among Belgian sickness fund beneficiaries, 2005-2014

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Background

The suggested disability durations following open surgery for wrist carpal tunnel syndrome vary between 14 to 90 days according to job classification. Surgeons’ recommendations can even speed the resumption of work to a maximum of 3 weeks following surgery. The present study was carried out to investigate whether past and current Belgian practice aligns with sick leave guidelines and to identify factors related to the duration of sick leave.

Methods

We retrospectively reviewed the sick leave record files from the Alliance of Christian Sickness Funds. Administrative data recorded were age, gender, occupation, period of work incapacity before surgery, sick leave after surgery, residence, specialty of surgeon, type of hospital, occupational disease and progressive return to work. A bad outcome was defined as no resumption of work within 90 days after surgery.

Results

Between January 2005 and January 2014, 18,979 enrolees underwent a carpal tunnel release. The rate of carpal tunnel release more than doubled during the 10-year period. The average age of the entire population was 45 years and 61% were operated on the first day of sick leave. Median time to return to work was 47 days. Work incapacity before surgery was the most important factor for a delayed return to work (O.R.: 2,9). Age (O.R.: 1,1), female gender (O.R.: 1,2), self-employment (O.R.: 1,8), occupational disease (O.R.: 1,3), progressive resumption of activity (O.R.: 9,3), residence in the southern part of Belgium (O.R.: 1,4) and surgery not performed by a neurosurgeon (O.R.: 1,3) were also significantly associated with a bad outcome.

Conclusions

Significant differences in sick leave following carpal tunnel release between provinces remain a point of concern for medical advisers. Modifiable factors include litigation and the role of progressive resumption of activity.
Sick leave following immigration: the role of stressful life events

Therese Ljung, PhD - The Swedish Social Insurance Agency, Sweden

Background
People often move between different countries in the world for various reasons. Most people emigrate because of studies, work or family related reasons, but some leave their homes because of war or persecution. One concern is that immigrants that have been experiencing war and early traumatic stressors may be more susceptible to psychological disorders that could lead to difficulties later in life. In addition, language and cultural differences might also contribute to an increased risk of sick leave, but the knowledge is scarce. The objective is to examine the association between different groups of immigrants (labor immigrants [of different cultures] and asylum seekers) and sick leave.

Methods
Data originates from a record linkage of several Swedish longitudinal nationwide registers of the Swedish Social Insurance Agency with information about immigration, sick leave, and sociodemographic factors. We identified a cohort of all individuals residing in Sweden between 2002 and 2005. We explored three different exposures; immigrants from the Nordic countries, Baltic countries and Bosnians who immigrated between 1990 and 1995; the period of the great immigration during the breakdown of the former Yugoslavia. The risk of sick leave will be assessed by fitting logistic regressions to the data.

Results
Preliminary results suggest that Bosnian immigrants had a higher risk of sick leave compared to non-immigrant residents (RR=1.27, 95%CI=1.23-1.30) after adjusting for sex, age and education. We found no increased risk among immigrants from the Nordic countries (RR=0.97, 95%CI=0.92-1.02) or the Baltic countries (RR=1.02, 95%CI=0.97-1.08) relative to controls during the same period.

Conclusions
The increased risk of sick leave among immigrants from affected areas suggests that these individuals represent important targets for sick leave prevention and treatment.
**Workability assessment of the physicians with mental health problems**

**Zdenka Čebašek-Travnik, MD PhD - University Psychiatric Hospital Ljubljana, Medical Faculty Ljubljana**

**Issue**
Medical professions have an unique position in the procedures for evaluation of their work capability. Workability assessment of the physicians has its own specifics, but in Slovenia workability assessment follows the same procedure for all employed. This could be problematic for many reasons, since medical vocation demands communication skills beside knowledge and technical qualification on one side and inter-peer assessment, including professionalism of the assessor and the assessed person on the other.

**Description**
Physicians are at special risk of developing addiction problems that may be incompatible with medical practice. Especially problematic could be workability assessment of the physicians with addiction and mental health disorders, which can occur at the start of employment or after certain working period. In both cases there is an ill physician with a disease, stigmatised both-itself and in the healing process.

**Results**
How to act in countres without programs for impaired physicians? How to treat them with the respect of their dignity? How to achieve objective and proper regard of workability assessment of the physicians, who deny /as most addicted persons/ their problems, minimize the consequences and are stigmatised more for healing than for addiction itself by their surroundings. Some clinical cases will be presented.

**Lessons**
According to specifics of workability assessment and medical treatment of addicted physicians so-called physician help programmes, which include professional assessment and versatility help to impaired physicians and their relatives, were shown as the most successful way of help. The goal should not be to damage doctor’s reputation, but to get him or her to appropriate help. A proposal for Slovenian population of physicians will be given.
Work absenteeism and Gastric bypass: A six-year study


Background

Obesity-related diseases are associated with direct and indirect costs to society. We studied the indirect costs of sickleave from work during three years before and three years after laparoscopic GBP.

Methods

Demographic data for operated patients were obtained from the Scandinavian Obesity Surgery Registry (SOReg); (national coverage > 98%), and cross-matched with data from the Social Insurance Agency (coverage 100%) for the period ± 3 years from the date of operation. In 2010 a total of 7454 bariatric surgeries were performed; the study group is 6123 unique individuals that were not receiving full or part-time disability-pension and where complete data-sets were available. A matched national reference population was identified for comparison.

Results

Obese patients had preoperatively a 3.5-fold higher absenteeism than the reference population. Simple logistic regression showed that female sex (OR 1.8, CI 1.5-2.1), high age (OR 2.4, CI 1.6-3.5) and low income (OR 5.0 CI 4.1-6.1) where associated with increased sick-leave. An increase of 16 days was observed in the first three months after surgery. Post the first three month period, the pre-intervention ration between patients and the reference population was restored.

Conclusions

Obese patients have a higher absenteeism that the reference population preoperatively. The presence of diabetes or depression did not further elevate the risk (OR) for sick leave during the follow up period after surgery. The increased sick-leave during the first 90 days after surgery was 16 days. There were no indications for any increase in absenteeism in the next three years; postoperative period patients did not deviate from their preoperative pattern and followed trends in the reference population.
Economic burden of rheumatoid arthritis and ankylosing spondylitis in Slovenia: Building the evidence base for innovative practices

1. ass. prof. Petra Došenović Bonča, PhD. - University of Ljubljana, Faculty of Economics, Slovenia; 2. Emilija Pirc Ćurić - Pension and Disability Insurance Institute of Slovenia; 3. Ivan Eržen - National Institute of Public Health of the Republic of Slovenia; 4. Matija Tomšič - Clinical Department of Rheumatology, University Medical Center, Slovenia - INVITED SPEAKER

Background

Reliable evidence on the economic burden of rheumatoid arthritis (RA) and ankylosing spondylitis (AS) is scarce in Slovenia. This hinders effective policy making and reduces incentives for treatment improvements. This paper thus investigates indirect costs of RA and AS to build the value case for innovative practices.

Methods

A comparative analysis of sick leave data (temporary disability, frequency of spells, severity) and disability evaluation for patients with RA and AS in Slovenia in the 2000-2014 period is performed. Changes in indicators between subperiods are tested using the t-test for equality of two arithmetic means, the influence of gender and age on sick leave is evaluated by using both the Chi-Squared test of distribution uniformity and time series methods, while F-test for equality of two variances is used to assess the variance of indicators for both diseases over the years.

Results

Temporary disability and severity declined faster for RA and AS compared to other MSDs and all diseases combined. For RA, the average annual decline in temporary disability and severity equals 1 percent. The average annual decline of temporary disability and severity for AS was 11.5 and 4.7 percent, respectively. The frequency index for RA increased after economic crisis in 2009 while the average annual decline for AS reached 7 percent. The number of patients with formally recognised disability for AS declined by 12.7 percent in 2010-2014 compared to 2005-2010. The decline for RA equalled 5.4 percent.

Conclusions

Available time series data on long-term and partial disability indicate a declining economic burden of the studied diseases. However, limited data on controlling factors for absenteeism trends and practically absent empirical assessment of costs due to presenteesim and inactive working-age population seriously hinder the study of how innovative practices affect the burden of the studied diseases and thus limit evidence-based location and reimbursement decisions.
A randomized controlled study of over ground walking training with a motorized assistive device in patients after stroke

1. Nataša Bizovičar, MD PhD - University Rehabilitation Institute of Republic of Slovenia; 2. Irena Stanonik - University Rehabilitation Institute of Republic of Slovenia; 3. Nika Goljar - University Rehabilitation Institute of Republic of Slovenia; 4. Tina Freitag - University Rehabilitation Institute of Republic of Slovenia; 5. Zlatko Matjačić - University Rehabilitation Institute of Republic of Slovenia

Background

In patients after stroke there is often affected balance and walking ability. Engineers in URI-Soča developed a prototype of a device for dynamic balance training during over ground walking (E-go). E-go device is composed of a mobile platform which it is attached to the supporting mechanism that enables adjustable mechanical pelvis support in transversal plane. The speed and direction of the E-go device is therapist controlled. The aim of the study was to evaluate the usefulness and effectiveness of the E-go device in patients after stroke.

Methods

Randomized clinical trial included 19 patients after stroke with hemiplegia, with Functional Ambulation Category score 0 or 1. Nine patients in the test group began training with 15 E-go assisted walking sessions, followed by 15 sessions of usual physiotherapy and 10 patients in the control group began with 15 sessions of usual physiotherapy, followed by 15 walking sessions with E-go. Repeated measures ANOVA was used for statistical analysis.

Results

At the end of the study patients in both groups had better results on the Berg balance scale, Fugl-Meyer Assessment lower limb, faster walking speed and needed less level of support. There were no statistically significant differences between both groups. When training with E-go, patients in the control group, needed significantly lower number of therapists (p = 0.03) compared to usual physiotherapy training without E-go device.

Conclusions

E-go training had a positive effect on the walking speed, balance and function of the lower limb in both groups. It also lowers the effort of the therapist. So far we can not make any conclusions to determine which of the training protocols is more appropriate.
Borderline orthopedics

prof. Antolič Vane, MD PhD, Slovenia - INVITED SPEAKER

Orthopaedic speciality deals with disease, trauma and posttraumatic issues of the locomotor apparatus. Global functional capability is decreased due to limited function, which usually goes together with pain. The origin of pain might be joints, muscles or spine on one hand and on the other the pain might also be referred from some other location in the locomotor apparatus or from internal organs. But pain might also be a consequence of “poorly defined” reasons or “diagnosis” such as fibromyalgia, myofascial syndrome, anxious-depressed syndrome, somatoformic disturbances, chronic fatigue syndrome, burn-out syndrome or chronic borreliosis. The aforementioned conditions usually coexist in various proportions with “organic i.e. orthopedic disease”. In patients a discrepancy between impairment and disability may occur which is due to personality structure in a given social environment. It is a challenge for an orthopedic surgeon to make the proper diagnostics optimally and in the appropriate time schedule. Various causes leading to loss of global functional capability should be delimited and the patient should be referred to the appropriate specialist. In this way the decision making of doctors in the field insurance and social medicine might be improved.
Advances in the Treatment of the Digestive System Require Changes in Assessing the Working ability of patients with Gastrointestinal and liver diseases

Kocijancic Borut, MD PhD- University medical centre Ljubljana, Clinical department of gastroenterology, Slovenia

Issue
New knowledges and improvements in the drug quality and dosages, new drugs, improved operative techniques, new approaches and a more active rehabilitation of patients in the last 20 years is changing the assessment of patients with gastrointestinal diseases. The economic and social crisis, the prolongment of the employment period and harder working conditions are increasing the pressure on the invalidity committees to quickly address the social status of the claimants. The country’s economic status and certain policies, especially the outdated and inadequate policy on physical impairments, the issue which has been brought up by many experts, make work difficult for committees on the local and central levels.

Description
One of the more common patients with gastrointestinal diseases are those with cancer. The improved operative techniques and new chemotherapy and radiotherapy improve their chances of survival, while more and more patients get fully healed. Depending on the stage of the disease, many patients in the beginning stages of cancer and successful treatments will not even reach the invalidity stage, while others may reach it at a later time.

Results
Operations in non-cancer patients are rarer and even those are commonly laparoscopic with shorter rehabilitation periods and less post-operative consequences, meaning less disabled persons. In patients with chronic intestinal diseases good results can be made with new drugs, especially biological, which reduces the need for invalidity assessment. Liver transplantations and improved immunosuppressive drugs can improve the life quality of patients and enable at least a temporary return to work. Many patients do not understand these changes as patients in the past were assessed as unable to work in the first post-transplantation years.

Lessons
The medical assessors need to reach a consensus with our colleagues, which will make our work easier and reduce the number of invalidity procedures and complaints at the labour and social court.
La réadaptation des travailleurs atteints de surdité professionnelle

1. Lucio Maci, MD PhD – INAIL, Italy; 2. Mario Tavolaro – INAIL

Background

Malgré les progrès significatifs de la prévention du bruit et l’adoption de lois plus rigoureuses en la matière, l’hypoacousie demeure l’une des maladies professionnelles les plus répandues dans le monde occidental. La surdité professionnelle menace la santé auditive de façon progressive, permanente et irréversible, de même que le bien-être et la sécurité des travailleurs. Les dysfonctions du système auditif dans le cas d’une perte d’audition liée au bruit entraînent une perte de sensibilité, la perte de sélectivité, la perte de discrimination, l’apparition d’acouphènes, et le développement d’une intolérance à certain sons.

Methods

L’étude part de l’expérience personnelle de plus de dix années acquisées au sein de l’I.N.A.I.L. (Institut National Italien pour l’Assurance contre le Maladies Professionnelles et les Accidents sur le Travail), qui entre les objectifs institutionnels fournit également d’améliorer la qualité de vie et de surmonter le handicap des travailleurs souffrants.

Results

L’I.N.A.I.L. a renouvelé l’ensemble du modèle de vieux système d’assurance par «la prise en charge” du travailleur par le biais d’un système qui compris la coordination et l’intégration de tous les types de services, mettant en œuvre un système de protection intégrée et globale dont les objectifs sont:

- optimiser la protection privilégiée du travailleur blessé et/ou avec une maladie professionnelle
- offrir un service complet qui intègre de manière unifiée à plusieurs reprises: de soins, d’évaluation, d’indemnisation, de réadaptation
- rendre la personne handicapée à la famille, à la société et à l’activité productive.

Conclusions

- Il est aujourd’hui possible d’accéder à des appareils auditifs de qualité supérieure,
Drowsy Driving – Evaluation of professional drivers with Obstructive sleep apnea syndrome

Vesna Pekarović Džakulin, MD - Diagnostični center Šentjur

Background
Sleepiness while driving is one of the recently identified reasons behind a large proportion of fatal car crashes on motorways, which are one of the safest types of roadway. It is estimated to underlie approximately 20% of car crashes in Europe. Therefore, it is essential to gain knowledge and raise public and expert awareness as regards sleepiness at the wheel which is a major issue for road safety and public health.

Methods
Professional bus drivers were offered the possibility to participate in a screening test, which was based on questionnaires and objective measurements. Individuals with positive test results were directed to the Ljubljana Institute of Clinical Neurophysiology at the Medical Centre of the University of Ljubljana for further examination, where some of them were given a nocturnal polysomnography, a method that diagnoses obstructive sleep apnoea.

Results
35 persons participated in the OSA screening test. 19 (54%) displayed an increased risk of developing OSA, and were directed for further examination. 11 individuals altogether were given a PSG, revealing OSA in 6 people, and other sleeping disorders in another 5 people. 4 drivers were lost from follow up. The examinations identified a high frequency of excessive daytime sleepiness among professional drivers. The positive predictive value of the screening test for all sleeping disorders causing daytime sleepiness in professional drivers is 70%, whereas for OSA alone it amounts to 38%.

Conclusions
Sleep apnoea (especially OSA) is one of the most frequent sleeping disorders that results in excessive daytime sleepiness. Therefore, the risk of causing traffic accidents could be decreased by raising general and professional public awareness, screening, timely diagnoses, adequate further treatment, and monitoring of patients. Drivers, following efficient OSA treatment, should be permitted to drive, however, under the condition that the effects and participation of patients in the treatment are carefully monitored.
Quality of Management of Sick-leave and Return to Work

Katja Bolcina, MD - occupational, traffic and sports medicine specialist, Department of Physician Supervision Manager, Celje, Slovenija

Background

The quality of management of absence from work and return to work is a synonym for a cost benefit assessment. The management of absence from work is a complex process, requiring constructive involvement of the worker, the selected GP, a designated physician and a disability board. The index of this quality is the average duration of temporary absence from work up to (and longer than) 30 days per active insurance holder and selected GP. In the research we tried to established whether both indices of quality have any connections to the established quality of referrals to designated physician and the established work overload of a selected GP.

Methods

The research included 1596 referrals from 16 GPs in rural area. Excel spreadsheet was filled with the GP, occupation, the reason, the first day of temporary absence, the diagnosis, the degree of definition of the proposal and my decision (extension, conclusion, additions, completion). The number of defined persons per team and their age according to age groups and quotients per team and information about reaching the average and both indices of quality were acquired. The data was collated by using pivot tables.

Results

The physicians with the highest number of quotients per team (3.128) made the least errors in referrals (3,4%), their index up to 30 days was the highest (12,4 days), their index over 30 days was below the average (35,9 days) The physicians with the medium number of quotients (2.000) per team made the most errors in referrals (9,8%), their index up to 30 days was in the middle (11,3 days) and their index over 30 days was the highest (57,8 days). Of the 1116 defined proposals I complied with 996 (89,2%).

Conclusions

The conclusion that GP’s workload influences managing absenteeism and return to work, should be taken with reservation. Quality of communication gives results.
Physicians’ experiences with sickness certification in Finland

1. adj. prof. Katariina Hinkka, MD PhD, The Social Insurance Institution, Research Dept, Finland; 2. Ilona Autti-Rämö - The Social Insurance Institution, Health Dept.- Finland

Background

Previous research has identified problematic issues concerning physicians’ duties and role in sickness certification process and large variations in the length of sickness absence. We modified a questionnaire used in Sweden and Norway to fit to the Finnish social insurance system. It was sent to 50% of the physicians working in Finland in clinical practice with working age patients. The main aim was to get information on practices concerning sickness certification. Also, attitudes towards guidelines for sickness certification and suggestions for development were evaluated.

Methods

The questionnaire was sent to 8 867 physicians, of whom 3089 responded. At the first phase, descriptive analyses are carried out comprising results for physicians in different clinical settings, age and work tenure. Further analyses will include comparisons with Swedish and Norwegian data.

Results

Most physicians stated that they find it problematic to handle sickness certification and have not enough time for these tasks. Assessing the optimum duration of sickness absence was perceived as fairly or very problematic by 36% and making rehabilitation recommendations by 34% of the physicians. More than 50% of respondents stated that they had fairly or very large need to deepen their knowledge on the social insurance matters and 80% stated that national guidelines for sickness absence duration were needed for some or all diseases.

Conclusions

A clear need for education on the evaluation of functional and working capacity was identified. Attitude towards national guidelines on the length of sickness absence was positive.
Work environment, health behaviors and sick leave due to mental disorders: a prospective twin study

1. Lisa Mather - Karolinska Institutet - Sweden; 2. Gunnar Bergström - Karolinska Institutet, Stockholm County Council; 3. Pia Svedberg - Karolinska Institutet; 4. Victoria Blom - Karolinska Institutet, Swedish School of Sport and Health Sciences

Background
Mental disorders are increasing as a reason for work disability in Europe, and are the most common reasons for sick leave in Sweden. Psychosocial work conditions as well as health behaviors can have a major impact on mental well-being and poor such conditions may also be risk factors for sick leave. Studies of work environment, health behaviors, and mental health outcomes have rarely considered the potential influence of familial factors. Studying twins provides an opportunity to investigate and control for genetics and shared environment (familial factors) in the associations studied. The aims were to investigate whether psychosocial work environment and health behaviors are risk factors for sick leave due to mental disorders, and whether familial factors influence the associations.

Methods
The study has a prospective cohort design. Participants from the population-based Swedish Twin Registry (n=11,729) completed a questionnaire in 2004 to 2006 including psychosocial work conditions and health behaviors. They were followed approximately 5 years for sick leave spells due to mental disorders, using national registers. Logistic regression and conditional logistic regression for twin pairs discordant for sick leave to adjust for familial factors was used.

Results
Eight percent of the sample had sick leave due to mental disorders. High job demands OR: 1.91 (CI: 1.18–3.11), job strain OR: 4.42 (CI: 1.98–9.86), and iso-strain OR: 5.03 (CI: 2.04–12.44) were risk factors for such sick leave, independent of familial confounding. Familial factors seem to be of importance in the associations between job support, smoking, a combination of unhealthy behaviors and sick leave.

Conclusions
Job demands, job strain, and iso-strain were risk factors for sick leave due to mental disorders, even after adjusting for several factors including familial. Hence, improving the psychosocial work environment may prove effective in measures to reduce sick leave due to mental disorders.
Control of duration work absence for sickness after surgical operation in France: a cultural revolution?

1. Marie-Christine Banide, MD – France; 2. RIVAS M – auteur; 3. SCIORTINO V – auteur

**Issue**

Absences from work as a result of sickness are a major point of interest for the French National Health Insurance Company (FNHIC), due to their number and their cost. Besides, their frequency and duration are higher in the South of France than in the North.

**Description**

No French guidelines relative to duration of absence of work existed, until the FNHIC began to elaborate them in 2011, and submitted them for the approval of the French National Authority for Health. They were built as a tool, so that the controlled patients can be equally treated all over the national territory. They propose threshold durations of work absence, especially for a list of 21 surgical diseases, considering the nature of the patients’ jobs (sedentary or physical).

**Results**

The number of patients, their sex, their age, the number of people having been summoned, and the rate of limited absences will be set out in detail after queries on medical data bases covering the full 2015 year. An average duration of cessation of work caused by these 21 determined surgical operations can be estimated, taking on board their national frequency. In our region, it was evaluated 57.6 days in 2013, and 44.9 days in 2014 that is 12.7 days less.

**Lessons**

Using guidelines recommending duration of cessation of work represents a considerable change in professional habits, both for the family doctors and for the medical controllers of the French National Health Insurance Company. They tend to homogenize practices and therefore facilitate a fair control of the patients. Until now, their use was concomitant with a reduction of the average of duration work absence. Knowledge of the nature of the patients’ jobs - not currently available in our data bases - would allow a better adjustment of the control examination date.
Improving Work Med claims processing accuracy and efficiency

Jean-Louis VanHille, MD MSc - ERSM d’Ile-de-France, Caisse nationale de l’Assurance maladie des travailleurs salariés, Paris - France

Issue
Sick leaves of more than 45 consecutive days have to be examined by a doctor of the medical service before they can be extended. The analysis of the drug consumption of the patient that is recorded in our database, can sometimes help check the legitimacy of the sick leave. Automation can improve this process. Each week, more than 5000 sick leaves in Ile-de-France alone require an analysis by a doctor of the medical service of our National Health system, thus generating much work for the medical and for the administrative staff. The doctors of the medical service found out that the full analysis of the drug consumption of a patient can point towards a pathology and help them make a decision regarding the extension or end of the sick leave.

Description
Consequently, it was decided to automate the process of drug consumption analysis based on medical model. This automation was tested in all of Ile-de-France during 8 months and then implemented. First, a medical algorithm was built, based on the analysis of the drug the patient was prescribed and actually collected, the medical procedures he/she underwent, and the reasons for hospitalisation if any, in the 75 days preceding the sick leave.

Results
We took a random sample of 160 sick leaves each week for eight weeks. They allowed us to test and improve the algorithm by comparing these results to the results of the examination of our doctors. The algorithm classified 40% of the sick leaves in a given pathology pointing towards an extension of the sick leave, and our doctors agreed with 90% of these results.

Lessons
The results are then entered into a reporting tool, and we automated the data entry process which allowed us to save much time and be certain the accuracy of our data.
Gap to the reference tables of duration of sick leave after a surgical act in Ile-de-France

1. Anne Solesse, MD PhD - DRSM d'Ile-de-France, Caisse nationale de l'assurance maladie des travailleurs salariés, Paris, France; 2. Jean-Louis VanHille - Département d'analyses et d'études, DRSM d'Ile-de-France, Caisse nationale de l'assurance maladie des travailleurs salariés, Paris, France; 3. Nicolas Chavoutier - Département d'analyses et d'études, DRSM d'Ile-de-France, Caisse nationale de l'assurance maladie des travailleurs salariés, Paris, France

Background
Guidelines for suitable duration of sick leave regarding targeted underlying diseases have been established by the National Health Insurance (NHI). Work leaves prescribed following targeted surgical acts have to be controlled by NHI medical service when exceeding threshold duration (28, 45, 90 or 180 days) according to guidelines. This study will allow describe the situations where threshold duration is exceeded according to the prescriber specialty and the type of surgical act.

Methods
The population of the study is the covered patients of Paris and its suburbs having undergone a targeted surgical act between March 2013 and February 2014. We calculate the cumulated duration of work leaves for each patient to compare them with the threshold duration. We counted the number of work leaves prescriptions, the rate of which exceeding the threshold duration and the number of days of work leave exceeding it.

Results
6,668 prescribers of sick leaves (that is 62.8%) have exceeded the threshold duration at least once, among which 1,332 more than 3 times (12.6%). The majority (72.1%) of the initial sick leaves prescriptions exceeding the threshold duration are due to surgeons. When a General Practitioner is responsible of exceeding the threshold, it is most of the time following an hysterectomy (84.8% of outnumbering), an hallux valgus surgery (80.3%), a carpal channel syndrome surgery (79.5%) or a bariatric surgery (75.5%). The two surgical acts generating more frequently excessive sickness benefit are carpal channel syndrome surgery and hallux valgus surgery.

Conclusions
Surgeons should be targeted as a priority for being made aware of guidelines concerning work leave duration according to their specialty. General Practitioners should be educated first and for most to guidelines concerning most frequent surgical acts associated with excessive work leave duration.

Reference:
Assessment of the price setting per act mechanism: procedures and results in the Paris region in 2013

Magali Percot-Pedrono, MD - ELSM-Bobigny, Caisse nationale de l’assurance maladie des travailleurs salariés, Paris, France

Issue

The control of the price setting per act mechanism allows to make sure that the information issued by health establishments do not induce unduly payments by the health care organism.

Description

It consists in an external verification of invoicing, both on national and local scale. The “Unit of Regional Coordination” proposes a project of control programme, the General Director of the Regional Healthcare Agency decides on the enactment.

Some establishments will be controlled on the basis of statistical abnormalities in terms of coding or invoicing when compared to similar types of establishments. We focused mainly on hospitalisations with co-morbidities and outpatient consultations billed as hospitalisations. It is a retrospective survey done by the medical assessors based on the medical cases billed the previous year. They cross-check the reality of the acts performed, the respect of the regulation of coding and invoicing. There is a phase of dialogue with the MD of medical information. Once the control completed, a report is forwarded to the establishment which sends it back his disagreements. This kind of control is dissuasive since the overcharge is claimed back for each case controlled plus a financial penalty according to the importance and the repetition of the fraud.

Results

In 2013, 56 centres (29 public and 27 private) were controlled. 17934 cases were inspected. The total overcharge rose to 4 679 274.58 €, the penalties to 8 609 409.99 €. On average, the overcharge claimed back plus penalty for each hospitalisation checked rises to over 250 €.

Lessons

The total amount of the overcharges and penalties recuperated represent only about 50% of the fraud. This implies that a new strategy of control must be found.
External quality assurance program “MRSA”

prof. Giehl Johannes, PhD - Competence Centre Quality Assurance/-Management Medical Service of Statutory Healthcare Assurance, Germany

Issue

Nosokomial MRSA-infections are a severe burden of hospital care. In Germany the 2nd national study of prevalence had shown that 5,2 % of all inpatient cases suffer from nosokomial infections and MRSA hereby is one of the most common bacteria. For the EU about 25 000 extra deaths by resistant bacteria are estimated. Therefore, in 2010 a specific external quality assurance program was established in Baden-Württemberg/Germany.

Description

Participation is mandatory for all hospitals. The program includes about 2 Mio patients per year and all hospital beds in this region of Germany. Electronic data collection comprises informations from legally required laboratory documentations (“IfSG-Listen”) and certain hospital characteristics. Screening rates, rates of first records of MRSA and of nosokomial colonisations/infections are defined as performance figures. Statistical results are calculated for all individual hospitals for each half of a year and they are discussed with the medical providers.

Results

Concerning average values screening activity is steadily increasing and first records of MRSA are decreasing continuously since the program was launched. The risk for a patient to acquire a nosokomial infection/colonisation diminished from 0,14 to 0,07 per 1000 hospital days since 2010. In absolute figures, in Baden-Württemberg 2000 nosokomial MRSA-infections/colonisations occurred in 2010 and there still were 1000 cases in 2014. Out of all German regions the most favorable reduction of MRSA-burden is registered in Baden-Württemberg. Nevertheless, several hospital characteristics (i.e. number of beds, surgical versus conservative care) seem to determine program conformity.

Lessons

Measures of external quality assurance applied in this program require moderate effort and they enjoy good acceptance by those involved in the program. Expert advice in the case of unsatisfactory results seems to improve program adherence and patient safety concerning nosokomial MRSA-infections. Nevertheless, these pioneer measures are considered a learning process whose determinants will be discussed.
Le virage ambulatoire. L’exemple du Centre Hospitalier de Melun (FRANCE)

Dominique Peljak - Centre Hospitalier de Melun - France

Issue
Selon Jean Rochon, la « déshospitalisation » consiste à écourter, voire éviter les séjours en milieu hospitalier en donnant davantage de services plus près des milieux de vie. De nombreux pays prennent ainsi ce « virage ambulatoire » afin de recentrer le système sanitaire sur les soins de proximité. L’objectif de réduction des dépenses d’assurance maladie est primordial : diminution du nombre de lits aigus, développement des soins ambulatoires, économies sur la gestion des organismes de protection sociale, ...

Description
Situé en Région Parisienne, le centre hospitalier de Melun s’est résolument engagé dans cette perspective.

Results
D’autre part, l’établissement a lancé une politique d’optimisation de son offre de soins :
- partenariat avec l’assurance maladie dans le cadre de trois programmes d’accompagnement au retour à domicile (PRADO) : maternité, orthopédie, insuffisance cardiaque ;
- réduction du nombre de lits de chirurgie en faveur de lits d’hospitalisation de semaine et de court séjour gériatrique ;
- réorganisations internes conduisant au développement de prises en charge ambulatoires ;
- développement de programmes d’éducation thérapeutique pour certaines maladies chroniques (diabète, bronchopneumopathie, ...) ;
- dépôt d’un projet d’hospitalisation à domicile en lien avec deux cliniques privées. Les résultats sont probants sur la période 2012-2014 :
- baisse de la durée moyenne de séjour : -3,9 % en médecine, - 9 % en chirurgie, - 5,3 % en réanimation ;
- hausse du taux d’occupation en MCO : 86,5 % contre 82,4 % ;
- développement de la chirurgie ambulatoire : + 9,8 %

Lessons
L’exemple de l’hôpital de Melun montre combien une politique volontariste soutenue par l’assurance maladie peut améliorer la prise en sanitaire d’un bassin de population.
Quality prescribing in general practice

1. Jana Mrak, MD - Health Insurance Institute of Slovenia, Ljubljana, Slovenia; 2. Fürst J - Health Insurance Institute of Slovenia, Ljubljana, Slovenia; 3. Godman B - Strathclyde Institute of Pharmacy and Biomedical Sciences, Strathclyde University, Glasgow, Scotland; 4. Premuš Marušič A - General Hospital Murska Sobota, Murska Sobota, Slovenia; 5. Prislan M - Health Insurance Institute of Slovenia, Ljubljana, Slovenia

Issue

To implement continuous improvement of prescribing in general practice with a model closely linking the work of general practitioner and a clinical pharmacist aiming to improve the safety and efficiency of treatment with medicine. Emphasis is on polypharmacy (multiple medications) which is increasing across countries and although appropriate especially in patients with multiple comorbidities it can cause serious problems to patients and is a major challenge for the health care systems. Problems include adverse drug reactions and harmful drug interactions with reduced quality of life, increased overall morbidity, mortality and increased costs to health care systems.

Description

A model was introduced in two regions in Slovenia. Beginning in November 2012 in the regional unit Murska Sobota (1st part of the project), subsequently expanding to the largest Community Health Centre Ljubljana in regional unit Ljubljana in April 2014, the project will be finished by the end of 2015 (2nd part of the project). Clinical pharmacist is added to the general practitioner’s team having a weekly afternoon session in the Community Health Centre to review patients’ medications. Every second month physicians and clinical pharmacists meet to share expertise and experiences with the focus according to the professional program approved by the Medical Chamber of Slovenia.

Results

Currently there are sixteen quality prescribing groups in the project. 112 group meetings were held and 2301 patient therapies were reviewed between November 2012 and December 2014. 741 potential X drug-interactions and 4639 D drug-interactions were found with LexiComp database.

Lessons

Local organization is convenient and well accepted by all participants including patients. Availability of clinical documentation enables more accurate pharmacotherapy reviews which in turn help physicians to improve pharmacotherapy. Regular meetings which focus on specific drugs were rated in the survey among participants as necessary. Further implementation is expected.
The impact of public disclosure of reimbursement data on quality of care

Callens Michael, MD. - Belgian Intermutualistic Agency (IMA) - Christian mutual health insurance funds, Belgium

Background

Reimbursement data contains a substantial amount of information about medical practice in Belgium. In addition to information on possible fraud, it also provides information on quality of health care.

Methods

In 2006, the Belgian Intermutualistic Agency (IMA) conducted a study on survival rates in Whipple procedures (pancreaticoduodenectomy).

Results

In the period from 2000 to 2004, centres with fewer than 10 procedures per year had an 11% risk of mortality during hospitalisation, twice as high as centres with more than 10 procedures per year. The Belgian Health Care Knowledge Centre (KCE) subsequently and repeatedly recommended the centralisation of patients with rare and/or complex cancers. In 2014, a follow-up study was conducted for the period between 2010 and 2013. Compared to 10 years ago, only one in 10 hospitals carries out more than 10 procedures per year. Their average mortality rate during hospitalisation is half of the smaller centres. In comparison with a decade ago, the variation in numbers remain as good as unchanged.

Conclusions

Since feedback and self-regulation yield little results, the Christian mutual health insurance funds in 2013 and IMA in 2014 published the numbers for esophageal cancer surgery per hospital for the first time. Research by the KCE showed that the survival rate at five years is up to four times higher if the patient is treated in a hospital which carries out at least 20 surgical procedures per year. As a result of this public disclosure, we saw a shift of patients from small community hospitals to larger centres for the first time. 13 of hospitals stopped performing esophageal cancer surgery in 2014. The University Hospital of Leuven, for instance, saw an increase of 17 percent. This shows that insurance physicians can contribute to the quality of care.
Use of administrative data from health insurances for mandatory nationwide performance measurement in Germany

1. Follert Peter - GKV-Spitzenverband (Statutory health insurance of Germany), Germany; 2. Döbler, Klaus - MDK (Medical Service of the Health Funds)

Issue

Background

Since 2001 all German hospitals are obligated by law to participate in the nationwide indicator based system of quality assurance. Quality indicators are calculated using clinical data documented by the hospitals until now. As a consequence, the measurement ends at the day of discharge. Especially in the light of shortening lengths of stay the validity of outcome indicators had to be optimized by extending the observation period. Due to new legislative rules, administrative data of health care insurers can be used for performance measurement now. This opens the opportunity to record the occurrence of outcome-relevant events after hospital discharge.

Description

Methods

Using the example of percutaneous coronary interventions (PCI) outcome indicators were developed using administrative data, from health insurances. The goal was to analyze the validity of administrative data for this purpose as well as to implement data paths suitable to include all German health care insurers, hospitals and doctors in ambulatory care.

Results

Specific administrative data could be identified to indicate relevant incidents, i.e. reinterventions, major complications or death. Efficient data paths could be implemented.

Conclusions

Administrative data of health insurances offer relevant advantages for the purpose of performance measurement. First results suggest that valid indicators can be modeled. Efficient data paths allow complete coverage of relevant incidents related to the approximately 850,000 coronary angiographies and interventions in Germany, performed by about 1,500 institutions and the calculations can be used to compare outcomes of hospitals and of doctors in ambulatory care. Furthermore the documentation burden for the providers can be reduced significantly. Use of administrative data for mandatory performance measurement marks a milestone in German health care.
Limitations in functioning of sicklisted people with medically unexplained physical symptoms (MUPS): a modified Delphi method

1. Kristel Helma Nicole Weerdesteijn, MD MSc DRS - Research Center for Insurance Medicine (KCVG) & Department of Public and Occupational Health, EMGO+ Institute, VU University Medical Center / Amsterdam / The Netherlands

Background

MUPS are very common and associated with reduced work functioning. The assessment of work functioning and advising regarding treatment and return to work in MUPS is difficult for medical specialists and may lead to conflicting advice as usually no objective medical symptoms can be found. This will not stimulate recovery and return to work for these patients. The existing evidence-based recommendations to assess work functioning in people with MUPS are mostly not specified to the relation with work situations and the broad range of symptoms. More consensus and good collaboration between physicians are therefore very important to stimulate assessment of disability claims in an uniform manner.

Methods

A study has been conducted with 15 medical experts on MUPS from different medical specialties. These experts have been asked to come to agreement on what factors of functioning are relevant for the disability assessments on the Dutch functional ability list, and the ICF classification. The study involved two email rounds and one meeting. In each round the experts were asked to prioritize the most appropriate functional limitation related to various cases of MUPS. After each round the feedback and scoring of the other experts was sent back to all experts. Based on the results consensus is sought between the experts.

Results

The results of the last round in the Delphi procedure are being analysed at this moment. The final list of relevant factors of limitations in work functioning for a disability assessment in patients with MUPS will be ready in December 2015.

Conclusions

With this Delphi procedure experts from various medical specialties will find consensus on relevant factors for the disability assessment. This will increase the quality and uniformity of the disability assessment, stimulate better collaboration between physicians, and limit conflicting advice to people with long term sickness absence due to MUPS.
Patients with Medically Unexplained physical Symptoms (MUPS): how many hours can they work?

Jerry Spanjer, MD PhD - Dutch National Institute for Employee Benefits Schemes, Groningen, the Netherlands

Background
Medically Unexplained Physical Symptoms (MUPS) are symptoms for which a treating physician has found no medical cause. Examples of diagnoses are fibromyalgia, fatigue syndrome and whiplash. Many patients with MUPS are not able to work a whole day anymore. Dutch insurance physicians have to assess whether patients must be considered limited in the number of hours per day that they are able to perform work (hour restriction). Aim of this study is to review the literature on this subject and to investigate which are reasons for insurance physicians to assess an hour restriction.

Methods
1. Review of the literature.
2. Five focus groups with a total of 40 Dutch insurance physicians saw a video with an interview of a patient with fibromyalgia. A semi structured discussion followed in which the arguments for and against an hour restriction were mapped.

Results
1. International research shows that a most of the patients with MUPS are only working a limited amount of hours a day. In Dutch literature physicians discuss the negative effect on rehabilitation if they conclude the patient has an hour limitation. Patients think an hour limitation can stimulate return to work.
2. Insurance physicians do not agree how many hours the patient on the video is able to work. 27 Reasons against and 21 reasons for an hour limitation are given; often these reasons are open to debate.

Conclusions
Insurance physicians struggle with the assessment of hour limitations in patients with MUPS. Several reasons for and against an hour limitation are given; often these reasons are open to debate. Insurance medicine should give a more unambiguous judgement if a hour limitation in patients with MUPS is present. Discussion and consensus in the professional group of insurance physicians can lead to a guideline in this matter.
The cognitive concept of objectivity as necessary in social security medicine today

1. Solli, Hans Magnus, MD PhD - Research Unit, Division of Mental Health and Addiction, Vestfold Hospital Trust, Tønsberg, Norway; 2. Barbosa da Silva, António, PhD - Ansgar College and Theological Seminary

Background
Two concepts of objectivity are used in social security medicine: A) Ontological objectivity, defined as what exists independently of any perceiving subject. Its biomedical criterion is “objective finding”. B) Epistemic/cognitive objectivity. Its criteria in social security medicine are often given in terms of professionalism, accuracy and verifiability. Cognitive objectivity is the property of the contents of cognitive achievements like perception, interpretation and judgments, which are presupposed as generally valid, at least in the actual context. Today “objective findings” are often not found in claimants (as in mental illnesses). Functioning is modeled in terms of ICF and an ability-based health model (AHM)(1). These developments make it necessary to develop knowledge about cognitive objectivity and its criteria for functional assessments. This is done in a new study.

Methods
Methods: Our studies are based on theoretical design. The texts are 86 social security certificates written by psychiatrists and psychology specialists in a mental health clinic (1).

Results
Results of a new study: Following legal prescriptions, a biomedical disability model (BDM) was used in most certificates. As no objective findings could be reported from the mentally ill claimants, the work (dis)ability judgements were brief and the reasoning sometimes difficult to follow. When the claimant was described concretely in terms of activity limitations, context in terms of barriers and facilitators, and goal, according to AHM, the reasoning process could usually be followed. The criteria of accuracy and verifiability were more often fulfilled by using AHM than BDM.

Conclusions
Cognitive objectivity is necessary for work (dis)ability assessments. The concept stresses the importance of having an agreed professional model for interpreting a claimant’s situation. (1) Solli HM, Barbosa da Silva A, Egeland J. Usefulness of an ability-based health model in work ability assessments provided by psychiatrists and psychology specialists writing social security certificates. Disability and Rehabilitation. 2015;37:771-8.
The use of the International classification of functioning, disability and health in the disability assessment process

Kovač Lea - Employment Service of Slovenia

Issue
The basic act that regulates the employment of persons with disabilities includes a provision that besides defining permanent consequences of physical or mental impairment or illness, the disability assessment has to consider difficulties in performing activities that impact the employability, and barriers to participation in the labour market. These difficulties and barriers need to be explained according to the International classification of functioning, disability and health (ICF).

Description
The theoretical and practical grounds for the use of the ICF in the disability assessment at the ESS will be presented in the paper, including the quantitative and qualitative overview of the decisions issued by the rehabilitation committee from 2005 to 2015, emphasising the practical use of the ICF. Basic system solutions to employment of persons with disabilities, the network, services providers and vocational rehabilitation outcomes in relation to different levels of functioning will be presented.

Results
The use of the ICF in the disability assessment at the ESS means an additional step in providing a holistic approach to managing the needs of persons with disability through collaboration of different professionals in planning, implementing and following up the rehabilitation process. The bio psycho social model provides the understanding of the disability in the context of the exploration of employment possibilities. This comprehensive assessment of work functioning of an individual provides the first step in the rehabilitation plan development and the first step of the rehabilitation process.

Lessons
Participation in the vocational rehabilitation activities is aimed at strengthening and building up of the vocational identity and career of persons with disabilities. This can be provided in the labour market with appropriate support and in special employment opportunities. The criteria for attaining of the right to vocational rehabilitation will also be described. They summarise psychological, personal, domestic and social aspects of functioning according to the ICF.
A systematic review of existing ICF-based instruments measuring functioning and/or participation. Towards an evidence-based asse

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Background

The ongoing shift from a compensation driven assessment of work disability towards a participation-driven assessment requires a renewed reflection on the currently used methods and instruments. The ICF framework by the WHO is a promising way for measuring participation and functioning at both individual and population levels. However, an overview of existing ICF based instruments is currently lacking. Therefore the aim of the study is to systematic review the literature to identify and describe existing participation based instruments measuring participation and/or functioning.

Methods

A search strategy has been developed to systematically review the scientific literature (Medline, PsycInfo and Web of Science) for existing ICF-based instruments and ICF core-sets. Titles and abstracts were screened for in- and exclusion criteria. Papers were included if they report on (the development of) ICF core sets or instruments based on the ICFframework designed for the working age population (18-65 years) for assessing abilities for participation or functioning. For all abstracts in which an instrument was mentioned, the full-text was read. The following information about the instruments will be extracted from the publications: type of instrument (e.g. questionnaire, performance test, physician/observer assessment), aim, construct measured, number of items and/or scales, scoring, response options, time to complete, and target population.

Results

After removal of duplicates, the combined searches resulted in 1449 hits. In 160 abstracts an instrument was mentioned. Preliminary results identified 24 ICF-based instruments. Of which 5 focused on a specific setting (e.g. work, disability assessment), 9 were disease specific (e.g. stroke, head and neck cancer and 9 were generic measures of participation or functioning. It is expected that more instruments will be

Continued on next page...
This overview of ICF-based instruments can help professionals and researchers to help choose an instrument when they want to measure functioning and/or participation as described in the ICF.
A systematic review of ICF Core Sets, towards an evidence-based method to assess work ability

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Background

The Dutch Social Security Institute has developed a work ability assessment method based on the ICF framework. The so-called SMBA is a comprehensive assessment of the individual’s ability to actively participate in the labor market. (SMBA is the Dutch abbreviation for: social medical assessment of work ability). An essential element in this assessment is a supportive instrument professionals can use. A systematic review was conducted to identify and describe ICF core sets to provide evidence-based input for further development and validation of the instrument and the underlying SMBA method.

Methods

A systematic search strategy was developed for identifying ICF core sets. Title and abstracts were screened by two independent reviewers. Full-text of the selected abstracts were screened. A study had to be a ‘leading’ study, that is presenting the final results of the development of a ICF core set. Other conditions to include the study was that the core set must be designed for the working age population (18-65 years) and must assess the ability for participation or functioning in a broad perspective.

Results

Out of 216 articles a total of 30 core sets was included and described in terms of aim of the study, included core set, methods and target population. For each included core set the ICF items were marked and listed in a table, if applicable clustered by disease. The component activity and participation is represented the most (39%), the component body structures the least (8%). The majority of the core sets were disease specific, three were more generic: disability evaluation, vocational rehabilitation and traumatised refugees.

Conclusions

An overview of ICF core sets and their content is given. The overview will lead to recommendations to improve the content validity of the SMBA method and the supportive instrument.
A case study (best practice): Employment rehabilitation of a person with disability after head injury and other limitations

Aleksandra Denša - University Rehabilitation Institute, Republic of Slovenia

Issue

In my presentation I’m going to introduce a case of a good practice in employment rehabilitation programme of a person with a head injury and other limitation’s as a consequences of the head injury. The presented case will show the importance of the holistic and interdisciplinary team approach in working with the client and other institutions in regards to client’s life (employment, living arrangements, social network, etc.) needs and interests.

Description

The client is a female, age of 27, who had head injury in September 2006, is a saleswoman by occupation and was registered at the Employment Service of Slovenia for 4,5 years without any real work experience. She was included in employment rehabilitation programme for 2 years and 9 months. Methods applied in the work with the client based on individual and group approach with collaboration of different team members with the aim of empowerment and employment of the client. Other methods: counselling, collaboration with employers, on the job training of the client in the real work environment, analysis of a work place, workplace accommodations if needed etc. A case management approach was used.

Results

For a year and 2 months our client was included in on the job training in real work environment in the Employment Centre (sheltered employment) where she was doing very simple, structured and repetitive work tasks under mentorship. Because of the stable work results, even though the work productivity was low (40%) employer decided to employ her.

Lessons

Positive outcome of the employment rehabilitation is only possible if the client is an active participant in the whole process who defines their own needs, goals in collaboration with professional team and employer.
**Application and benefits of using ICF core set in vocational rehabilitation**

1. Valentina Brecelj, MSc - University Rehabilitation Institute Republic of Slovenia; 2. Metka Teržan - University Rehabilitation Institute Republic of Slovenia

**Issue**

In Slovenia we’ve been using International Classification of Functioning, Disability, and Health (ICF) in vocational rehabilitation (VR) since 2006, but only the functions of body systems are required in the assessment phase. For comprehensive assessment of the individual’s functioning, specific categories from all ICF domains should be included to support VR process. WHO has already prepared ICF core set for VR, since the entire ICF is too time consuming for everyday use.

**Description**

Study has two main goals: (1) proposing ICF Core Set for VR, and (2) implementation of the core set in a goal setting and evaluation of the VR process. Special group of VR professionals – VR providers, was established to prepare core set. In the 1st phase (period Jan – Dec 2015), first a systematic literature review was conducted. Next, we check the appropriateness of existing WHO core set for VR and decide which ICF categories are to be included in the core set following a multi-stage, well-established decision-making and consensus process. The aim of the 2nd phase is to test and validate the first version of the VR core set among persons with disabilities – VR service users.

**Results**

The result is ICF Core Set VR. To make it useful and usable we have focused on domains, relevant for improving employability of the users and their (re)employment. In daily practice, it could be useful for individual planning, goal setting and observation of the improvements in the VR users functioning during VR process.

**Lessons**

The study demonstrates domains of the ICF, appropriate for the VR process, which can be, together with other existing instruments, used as a tool for guiding VR process. The use allows a comprehensive assessment of the users level of functioning and provides domains for goal setting relevant to specific situation of individual VR user.
Work Assessment due to Disease or Disability on Typical Cases

1. Janko Demsar, MD - Pension and Invalidity Insurance Institute of Slovenia, Medical Assessment Division, Zagrebška 84, 2000 Maribor, Slovenia; 2. Bojan Zibrat, MD - Pension and Invalidity Insurance Institute of Slovenia, Medical Assessment Division, Zagrebška 84, 2000 Maribor; 3. Tomaz Tomazic, MD, PhD - Pension and Invalidity Insurance Institute of Slovenia, Medical Assessment Division, Zagrebška 84, 2000 Maribor; 4. Valentina Plavec - Pension and Invalidity Insurance Institute of Slovenia, Medical Assessment Division, Zagrebška 84, 2000 Maribor

Issue
Assessing the work capability on five typical cases with an inquiry of Slovenian medical assessors. The purpose of the inquiry is to compare the assessors’ results.

Description
The online inquiry of cases by Prof. Oskar Mittag from Freiburg was forwarded to 137 medical assessors and received 59 replies.

Results
Most of them were medical assessors in the public sector (76%), secondary health sector (73%), psychiatrists (15%), internal medicine specialists (14%), occupational medicine specialists (10%), orthopedists (10%), assessors from Central Slovenia (34%) and Podravje region (24%). Traumatic injury of the brain, 32 year old roofer: 27% say the patient can complete occupational rehabilitation, 27% consider the patient capable of working in his profession with reduced working hours, while 17% say the patient is incapable for gainful employment. 10% of the assessors believe treatment is still in progress, everyone else picked other options.

Chronic lumbar pain, 47 year old forest worker: 63% believe the patient can work full-time with certain restrictions, while 7% suggest occupational rehabilitation with workplace adaptation.

Breast cancer, 56 year old cleaning lady: 75% suggest the same employment with reduced working hours, while 3% suggest another employment with reduced working hours.

Coronary heart disease, 55 year old welder: 41% for another employment with reduced working hours, 31% for another employment full-time.

Recurrent depressive disorder, 47 year old policewoman: 61% for treatment still in progress, 17% another employment with reduced working hours, while 14% suggest disability retirement.

Lessons
The analysis of the assessors’ answers shows differences in assessing the working capability of the same...
health problems in patients. The assessments also had the option of employment at another working place with or without occupational rehabilitation, with reduced working hours and to retain employment with the current employer. It is necessary to standardise the assessment criteria which we are currently compiling.
Employing a disabled person in a protected workplace

Suzana Bohorč - Želva d.o.o., Ljubljana, Slovenia

Issue
Developing models of good practice in employment of people with disabilities through vocational rehabilitation

Description
A person D.G., born 1969. He has not completed elementary school. He has 12 years of work experience; for longer than a plumbing installer. The works that he carried out were mostly heavy physical work. In 2007, in a traffic accident as a pedestrian suffered serious injuries. He had a spinal injury. He was operated on. All that remained was the strain of the spine. Due to damage to brain nerves remained double vison when lookin up and down. It also remained the limit of the right shoulder. In 2010, invalidity Committee, expressing an opinion: able to work without coercive attitudes of the lumbar and thoracic spine, work without continuous bending, work in which the hand is displaced up to maximum of 5 kg, work without time pressure and without work at a height, with shorter working time-4 hours per day.

Results
Adjusted the workplace, working process and work accessories. Having this kind of support and throughout the psychosocial support that was given at the time of rehabilitation has progressed to such an extent that in September 2012 in this post also employed till today.

Lessons
Rehabilitation team searched for a suitable emloyers for social and work inclusion, with a view to check his functioning and work ability. He included in the training in employment center. He did simple assembly work with a properly adjusted the workplace, working process and work accessories by the employer in cooperation with the rehabilitation team of Želva. He has managed to employ and maintain employment. He is happy and proud.
Multi-annual evaluation of the employment outcomes of persons with disabilities

1. Aleksandra Tabaj, PhD - University Rehabilitation Institute, Republic of Slovenia, Development Centre for Vocational Rehabilitation; Ljubljana, Slovenia; 2. Črtomir Bitenc - University Rehabilitation Institute, Republic of Slovenia, Development Centre for Vocational Rehabilitation; Ljubljana, Slovenia; 3. Kovač L - Employment Service of Slovenia; Ljubljana, Slovenia; 4. Ponikvar J - ŠENTPRIMA - Institute for counseling, training and rehabilitation of disabled persons; Ljubljana, Slovenia; 5. Volovec D - Papilot, Institute for the Promotion and Development of Quality of Life; Ljubljana, Slovenia

Issue

Based on the recommendations of Court of Audit of the Republic of Slovenia, Development Centre for Vocational Rehabilitation of the University Rehabilitation Institute, Republic of Slovenia prepared multi-annual evaluation, costbenefit study and feedback analyses of the effects of vocational rehabilitation (hereinafter: VR) for persons with disabilities (hereinafter: PwD) with respect to the policies, actions, measurable targets, and the performance of the competent institutions and providers of vocational rehabilitation in achieving planned objectives.

Description

Study lasted from 2012 until the end of 2014. The analysis in 2013 focused on the entire concession period 2010-2013, which served as a pilot analysis. In doing so, we collected data on the characteristics of the target groups involved in vocational rehabilitation; special attention was paid to the degree of PWD’s problems and their obstacles compared with other unemployed persons. Data on the outcomes from VR were collected as well as the indicative financial data of the population of PwD in the VR (benefits for users of VR, providers of VR, and rehabilitation commissions) for the calculation of the average cost of rehabilitation per VR service user. In 2014 the data were updated and new analyses were made.

Results

Comparing outcomes for PwD in VR programme 2010-2013 – employment rate was 37,69%, with PwD not included in VR – employment rate was only 10,8-16,37%, which shows that PwD in VR had better employment outcomes than PwD not included in VR. Average costs for PwD in VR 2010-2014 were 4.077,42 €. After comparing this outcomes and costs with EUROFUND study (2012), which found out that cost for not being in employment, training or education, for Slovenia was 9.937 € in 2008 and 10.776 € in 2009.

Lessons

Based on the results, VR showed itself as being cost-effective and thus deserves even more attention and stronger promotion in the future years.
Vocational Rehabilitation and Employment of Persons with Tourette Syndrome (TS)

1. Damjan Fajhtinger - CRI Celje d.o.o., Celje, Slovenia; 2. Kavalar B - CRI Celje d.o.o., Celje, Slovenia; 3. Prevoršek D - CRI Celje d.o.o., Celje, Slovenia; 4. Žnidarčič D - CRI Celje d.o.o., Celje, Slovenia

Issue
Employment opportunities for persons with lower education and diagnosed Tourette syndrome (TS), with physical and vocal ticks, and a reduced ability to cope with stressful situations

Description
Based on the preliminary assessment by the CRI Celje expert team, the person was deployed in the process of vocational rehabilitation with restrictions stipulating self-paced work tempo, repetitive workflow, minimum necessary adjustment and no contact with customers. At his previous workplace (technician), the person had difficulty in following the work rate efficiently, understanding the instructions and dealing with customers, which eventually led to loss of employment and a further deterioration of mental and physical condition. On the basis of these health issues and the stipulated operational restrictions, a vocational rehabilitation programme was initiated at the company CRI, in which the person was trained for several types of work (servicing technical medical equipment, assisting in machine maintenance, warehousing). Within individual positions, the most appropriate and optimal jobs were sought, which also led to employment in the company after the rehabilitation was completed.

Results
Due to the wide range of positions pursued during rehabilitation, we established suitable work assignments which the person has been carrying out effectively and reliably, thereby concluding their employment rehabilitation.

Lessons
In the process of workplace rehabilitation, the treatment of people with neurological disorders, often accompanied by mood swings (depression, anxiety), demands a high degree of employer flexibility and a wide range of well-planned work assignments, through which the optimal job for the rehabilitating person can be found, while also providing constant appropriate psychosocial support and mentoring.
Transition of youth with disabilities from school to work

Dolinšek Tatjana, MSc - Racio Ltd and Racio Social, Slovenia

Issue

Youth with disabilities (YWD) are often left to themselves after finishing education. The problem of transition to the labour market is one of the most commonly discussed subjects in Europe in the field of integration of vulnerable groups into the labour market.

Description

RACIO SOCIAL, URI SOČA and AURIS have launched a project Transition in January 2011, co-financed by the ESF. It was completed in 2013. The project comprised an analysis of the transition of YWD from school to the Slovene labour market, theoretical and practice models, presentation of global good practices, development and execution of an educational training program for fifteen transition trainers who were offering support to more than sixty YWD during their entry into the labour market. Through practical work with the youth, they tried out the knowledge acquired during the programme and suggested potential improvements. Based on the experience acquired during the practical experiment, the solutions for integration into the system, policies and best practices were suggested.

Results

- Educational programme for transition trainers
- 15 transition trainers that can offer assistance and support
- Support and monitoring offered to more than 60 YWD
- Suggested conditions and organizational structures that enable professionals to work with YWD

Lessons

Through education and training, YWD must acquire key competences in order to respond to needs of labour market. Transition to the labour market should enable everyone to acquire their first fully paid job, which should be appropriate for them in order not to worsen their health issues and consequently their disability. We continue to search for solution in the follow-up project “Meeting point Transition”, co-financed by EEA grants, Norway grants. During this project two meeting points in two regions will be established. In future this model will be disseminated through entire Slovenia as an extension of professional teams for vocational rehabilitation.
Example of training and supported employment of a person with visual impairment in public sector

Teja Bandel Castro, MSc - Slovenia

Issue

The purpose of presentation is to demonstrate the process of employment rehabilitation of a visually impaired person in the field of public administration, which ended up in supported employment.

Description

The person with visual impairment (31 years old, female, high level of education) joined in the employment rehabilitation services starting with the service “B”. Based on the findings of her physical and mental capabilities the following adjustments and limitations at the work place were proposed: no lifting of heavy burdens over 5 kg, physically effortless work, only in daily shifts, without deep bending forward at the waist, without extreme and permanent time pressure and application of technical aid for visually impaired. In further cooperation (services A, C, E, F, G, H, I, J, M, N) she was chosen for a training at the workplace in a field of public administration. Activities and tasks were compiled of document sorting, classification, managing and eliminating, tasks assigned by a superior, organizing and coordinating business contacts and cooperation in coordinating different departments. Side by side she took part in individual and group sessions organized by professionals in the Centre for vocational rehabilitation based on a psychosocial support.

Results

Training at the actual workplace lasted for 3 months and was concluded with performing a service “N”. Depending on obtained information we concluded that a person is 100% efficient within her work assignments using a computer with appropriate adaptations for visually impaired and electronic magnifier. Her social skills and cooperation with coworkers as well as superiors was appropriate. She was showing immense motivation for getting the actual job. At that time she was offered a temporary contract, by now she has a permanent.

Lessons

This case is an attractive example of how cooperating between person with disability, employer and employment rehabilitation provider can lead to a successful supported employment.
Vocational Rehabilitation in Slovenia

*Peter Šalej - Invalidity Insurance Institute of Slovenia, Slovenia*

**Issue**
The vocational rehabilitation in Slovenia is defined by the Pension and Invalidity Insurance Act (Ur. l. RS No. 96/12, with amendments), the execution of which is done by the nine regional units of the Pension and Disability Insurance Institute of Slovenia.

**Description**
Vocational rehabilitation is one of the faster ways to return / incorporate the patient back into the working environment after their medical condition has changed. Of course, this does not apply for vocational rehabilitations which are carried out in the form of high school or university studies over the course of several years. It does, however, apply for other means of vocational rehabilitations such as short-term trainings and educations (courses) and practical work at a specific workplace of the employer, as well as other forms of work training. During the vocational rehabilitation process, the insured person is professionally, physically and psychosocially trained to perform the same or another occupation and they can seek proper employment and reintegrate themselves into the working environment.

**Results**
The right to vocational rehabilitation is usually granted to disabled persons who have obtained the 2nd degree of invalidity with age restrictions, as well as those who have obtained the 3rd degree of invalidity with the right to reduced working hours of at least 4 hours per day, but would rather exercise the right to vocational rehabilitation instead.

**Lessons**
In the past, most people in Slovenia underwent rehabilitation in shorter or longer education programmes. We now understand that such a way of rehabilitation is not the most effective one. In the future, we wish to train people with practical work at a specific workplace, or enable them to perform their duties at a workplace with proper technical devices.
Supported employment of persons with mental health problems, integration into regular workplace environment

Ksenija Bratus Albreht - Postojna, Slovenia

Issue
The percentage of people with disabilities among the long-term unemployed is higher than the percentage of people with disabilities in the entire category of unemployed people. (Source: Employment Service of Slovenia, May 2015). Šentprima will present practical experiences (good practice) with IPS method (Individual Placement and Support) in the work integration of people with mental health disorders in the regular market.

Description
Persons with mental health problems face specific needs during their work integration. These needs can be addressed only with a comprehensive individualized program of rehabilitation and team-based approach in the field of medicine, psychology, social work and occupational therapy. Team of experts offers and ensures support for both, employer and person with disability, as it varies according to the type of disability, level of impairment and obstacles that each disabled individual faces. Such support is enabled as a supported employment and it refers to the employment of person with disability in the regular workplace environment.

Results
There is now overwhelming international evidence that ‘place then train’ models are much more effective than traditional approaches such as vocational training and sheltered work in successfully getting people into work. The EQOLISE project compared IPS with other vocational / rehabilitation services in six European countries. It concluded that:

- IPS clients were twice as likely to gain employment (55% v. 28%) and worked for significantly longer;
- the total costs for IPS were generally lower than standard services over first 6 months;
- clients who had worked for at least a month in the previous five years had better outcomes;
- individuals who gained employment had reduced hospitalisation rates.

Lessons
The basis of supported employment is social and vocational integration of person with disability and continuous and individualized support offered to employer and person with disability also after the official start of employment.
Vocational Rehabilitation in Slovenia

Karl Destovnik - ZIZRS, Ljubljana, Slovenia

Issue
In Slovenia, rehabilitation and employment of disabled persons is carried out via professional rehabilitation as defined in the Pension and Disability Insurance Act and via vocational rehabilitation as defined in the Vocational Rehabilitation and Employment of Disabled Persons Act.

Description
The difference between the two is in the status of the participating individual; with professional rehabilitation, the processed individuals are employed, whereas with vocational rehabilitation, the individuals being processed are unemployed. The services carried out also differ; professional rehabilitation mostly focuses on expert support with career change, training and returning to work, while vocational rehabilitation involves a set of services that increase the employability of disabled persons by enabling them to train for suitable jobs, get employment, keep it, get promoted or change their professional careers. Both types of rehabilitation provide for a systemic and comprehensive addressing of issues related to the employment of disabled persons and their reintegration into the labour market.

Results
The article will present the vocational rehabilitation system, some of the services and procedures applied as the individuals enter and eventually leave the process for various types of work and employment, while increasing their social inclusion. Among the services used in vocational rehabilitation, special emphasis will be placed on services that provide concrete assistance in the selection of suitable professional objectives, training for a specific job and/or chosen vocation and assistance in finding suitable work or employment.

Lessons
The vocational rehabilitation services are carried out by multidisciplinary teams of trained experts working for providers of such services. In Slovenia, there are 14 providers of vocational rehabilitation, all members of a specialised association –ZIZRS. The primary task of the Association is the organise and carry out the mandatory professional education and/or training of the expert staff working for the various providers of vocational rehabilitation.
Workplace adjustment for selfemployed client with fibromyalgia: a case illustration

Ana Kapel - Centerkontura d.o.o., Ljubljana, Slovenia

Issue
This case illustration presents a client in the process of vocational rehabilitation (VR) suffering from fibromyalgia. The purpose of this illustration is to describe workplace adjustment and the use of measures of supported employment and funding from the Found for Promotion Employment of Persons with Disabilities (PwD). Since 2006 there were only few cases of workplace adjustment in supported employment made by VR providers in Slovenia.

Description
VR team uses data based on the bio-psycho-social model and client orientated approach. In assessment phase the team evaluates data regarding client’s limitations, her work ability, cognitive capacity and motor capability, mental status, employment goals and work habits. The client is suffering from chronic neck, shoulders, arms, low back and hips pain, fatigue, joint stiffness, irritable bowel syndrome, chronic headaches and impaired concentration. She has two years of experience in translating. Her employment goal was self-employment in the field of translating and working from home.

Results
In individual rehabilitation plan we focused on two goals: providing information about funding sources from the Found for promotion of the employment of PwD (right to a subsidized salary, covering the cost of workplace adjustments and tax reliefs) and accommodation needs. In workplace adjustment plan we focused on implementing ergonomic workstation design. Ergonomic mouse and separated keyboard are enabling natural posture of wrist and reduce ulnar deviation and wrist extension. Office chair is designed to allow intuitive adjustments and to keep body in balanced motion. Working from home allows the client a flexible work schedule, periodic rest breaks and self paced workload.

Lessons
This case illustrates a client-centred approach to providing work related rehabilitation with focus on workplace adjustment. Ergonomic arrangement of the work place contributes to higher quality of life, work effectiveness and reduced pain.
New Medical Technologies Workshop for personalised Arthroplasty in Employed Slovenian Population

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Issue

The purpose of this study is to quantify the arthroplasty rate in the Slovenian active population in regards to employment during a 15-year period. We have tried to determine the ethological specificity and advantages of 3D technology in mechanical challenging hip cases.

Description

The data from Invalidity- and Health Insurance Institutes of Slovenia from 2000 through 2014 was used in conjunction with the Arthroplasty Register to quantify the rate of arthroplasty, aetiology and the employment status of the insured patients. 3D Technology was used to develop Patient Specific Instruments (PSI) in form of individual resection guides and hip models for difficult arthroplasty cases.

Results

The number of estimated insured persons (average age of 56.4 years (32-68Y) post arthroplasty with the leading ICD diagnosis Z96.6 represents 1.4% of all assessments. The ratings with this pathology in the last 5 years have doubled. The yearly number of assessments after arthroplasty (299/Y) represents only 7.5% of implantations (3986 TJR/year). Until the implantation the insured person has in average 27 active years and 91% of all are employed at the time of the assessment. 69% get restrictions at the workplace, 10% of them are referred to vocational rehabilitation, 9% become incapable for work and 6.5% remain at the workplace without disability. The percentage of mechanical challenging dysplastic, rheumatic and posttraumatic arthritis cases presents 37% of all pathologies in this active period. For this difficult pathology the new PSI technique enables more accurate planning and endoprosthesis placement (±0,47cm), a quicker (-9,1min) and less invasive procedure, with better functional joint scores (HHS 91,4 12Wpost THR).

Lessons

The assessment number and prevalence of joint replacements has doubled in the last 5 years during the employed period. Especially in this mechanically challenging active population the new 3D Technology bring benefits in joint kinematics and predicts a better survival rate for the implants.
New Medical Technologies Workshop: 3D Technologies – New Possibilities in Medicine

1. prof. Igor Drstvensek, PhD - Faculty of Mechanical Engineering, University of Maribor, Smetanova ulica 17, 2000 Maribor, Slovenia; 2. Brajlih T, Ass.Prof.Dr. - Production Engineering Institute, Faculty of Mechanical Engineering, University of Maribor, Smetanova ulica 17, 2000 Maribor, Slovenia; 3. Tomazic T, MD, PhD - Orthopaedic Department, Teaching Hospital Murska Sobota, Ul.dr.Vrbnjaka 6, 9000 Murska Sobota, Slovenia

Issue

3D technologies were introduced in the modern manufacturing in 1990 in the field of Rapid Prototyping. Nowadays commonly known as 3D printing these technologies prove themselves useful in many different fields of creativity and life. They have the ability to produce optional and very complicated forms without additional geometry induced costs and have become an important instrument in medicine. Ranging from diagnostic use of 3D scanners to surgical planning and furthermore production of patient specific medical instruments and implants these technologies are becoming ever more important in modern medical practice.

Description

Our research and development in the last 10 years resulted in the adoption of 3D scanning and printing in various fields of medicine. During this period we have produced several implants that enabled flawless implantations and perfect aesthetic results. Patient specific instruments in form of jigs and guides proved themselves as very useful tools that not only shortened the surgical procedure but also increased the reliability and overall performance of the surgical team. Among these were guides for total hip, knee and shoulder replacements and guides for pedicular screw placement. Apart from shortening the operative procedures the use of these instruments enable less invasive and more precise endoprosthesis placement with optimal kinematic and better functional results.

Results

In the last couple of years the 3D printing has played an important role also in the production of artificial limbs and other prosthetics. Especially interesting is the use of low cost 3D printers for production of simple prosthetic elements for children that are custom made to fit the demands of different functionality and simultaneously to reach the widest possible user base.

Lessons

The presentation will give a wide overview of possible use of 3D printing and also show the results that are being used in everyday practice in Slovenia and worldwide.
Alignment in custom-fit minimally invasive total knee arthroplasty

1. Oliver Djahani, MD - Orthopaedic hospital Stolzalpe, Austria; 2. Martin Pietsch - Orthopaedic hospital Stolzalpe

Background
Recently, new custom-fit pin placement guides in total knee arthroplasty (TKA) have been introduced. Using magnetic resonance imaging (MRI), a three-dimensional model of the patient’s knee anatomy is created. Based on this, femoral and tibial pin placement guides are designed. They are used on the patient during surgery as a guide for the pins to determine the standard femoral and tibial cutting blocks. There is a lack in the literature using these guides. The hypothesis was that the pin placement guides would lead to better postoperative alignment.

Methods
We carried out a prospective study to evaluate the coronal and sagittal alignment in 60 consecutive patients (24 male and 36 female, 48 varus and 12 valgus deformities, mean mechanical axis 7 (0 to 25) degree) having a minimally invasive posterior stabilized cemented TKA. The patients were divided randomly into two equal matched groups. In one group intramedullary femoral and tibial alignment jigs were used (standard), whereas MRI-based patient matched pin placement guides (Patient Specific Instruments, Zimmer, Warsaw, USA) were used in the other group (custom-fit). The alignment was determined on post-operative long-leg frontal and long-leg lateral films.

Results
The coronal mechanical axis of the leg was significantly better in the custom-fit group (97%, within ±3° varus/valgus) compared with the standard group (83%, within ±3° varus/valgus). The sagittal alignment of the femoral and tibial component was also more accurate in the custom-fit group. The mean surgery time was 76 minutes (52 to 92; 95 % CI 72 to 80) in the custom-fit and 87 minutes (49 to 121; 95 % CI 80 to 94) in the standard group (Mann-Whitney, p=0.004).

Conclusions
Using MRI-based custom-fit pin placement guides when performing a minimally invasive TKA gives a better correction of alignment of the leg compared with the standard technique. The surgery time is reduced...
New medical technologies workshop-Reconstruction of craniofacial bone defects with three-dimensional custom-made implants


Issue

Important functional and esthetical impairments appear due to bone defects of the craniofacial skeleton. In order to rehabilitate the morphology and functions of these patients, for social reintegration, reconstruction of the defects is mandatory. The development of additive technologies and computer-aided surgery offer the possibility of reconstructing large bone defects with custom-made craniofacial implants for a better morphological and functional rehabilitation.

Description

Different bone defects of neural or visceral skull were rehabilitated using custom-made implants of polymethylmethacrylate or titanium. The implants were produced by three-dimensional modelling, selective laser sintering, casting in silicone-rubber mould or selective laser melting.

Results

Produced for each specific case, the custom-made implants adapted perfectly into the bone defects, assuring an excellent morphological and functional rehabilitation. Due to the preoperative modelling, the time spent into the operation was significantly decreased, as was the hospitalization time. There were no adverse effects to the materials used.

Continued on next page...
Lessons

The possibility of producing custom-made implants opened a new era in craniofacial reconstructive surgery. Initially involving an expensive technology, the process of producing these implants becomes more and more affordable due to the development of technology and processes. Thus, by the huge advantages they bring, patient-specific implants will soon be a standard of care in every medical system.
New Medical Technologies Workshop in 3D Scans of Human Faces as Research, Diagnostic and Therapeutic Tool

prof. Nataša Ihan Hren, MD PhD, Slovenia

Issue

Dentofacial deformities are connected with the functional, aesthetic and psychological problems, the orthognathic surgical treatment rehabilitate these handicapped people. The aim of this lecture is to present different applications of non-invasive 3D imaging in everyday practice.

Description

The classical diagnostic procedures in orthognathic surgery are lateral cephalogram, plaster casts of occlusion and standardized photography, but more reliable 3D method is necessary. Everyday use of 3D scanning systems in orthognathic surgery is becoming the well-established diagnostic tool and improvement in treatment and rehabilitation results. In addition to cross-sectional studies on normal population to determine the average ethnical conditioned face as surgical standard, different dental and skeletal deformities were analyzed to determine the real 3D discrepancies. But the real progress in that field will be with standardization of this method as diagnostic procedure and with this data the planning of surgical procedures.

Results

Not only the more reliable predictions of results of surgery, also more detailed planning of skeletal changes could be done – we are talking about backward planning as final goal of the development of these procedures. A part of these were also our results about the ratio of soft tissue changes after bone movement. The main advantage of the 3D facial scanning is its non-invasive nature. Moreover, it is suitable for early diagnostic, better planning and finally better patient’s rehabilitations. In addition, the treatment of handicapped people because of facial deformities can be determined on a more modern, precise and objective way.

Lessons

The practical use of this technologies will be presented in the case of Goldenhar Syndrome as pronounced facial asymmetry – the diagnostic with digital mirroring of facial scans, objective postoperative evaluation of different procedures (bone surgery, facial lipofilling) and angular bone substitute done by rapid manufacturing technic.
New Medical Technologies and Their Impact on Functional Ability, Subtitle Cranioplasty and Deep Brain Stimulation

1. Tadej Strojnik, MD PhD - Department of neurosurgery, University medical centre Maribor, Ljubljanska 5, SI-2000 Maribor, Slovenia; 2. Igor Drstvenšek - Faculty of mechanical engineering, University of Maribor, Smetanova 17, SI-2000 Maribor

Issue
The treatment of patients after injuries or diseases resulting in deformational consequences usually requires the implantation of either autologous tissues or biocompatible implants that replace missing parts of the tissue, usually bone. Deep brain stimulation is an important component in the therapy of movement disorders.

Description
An artificial implant in neurosurgery has to fulfil physical, aesthetical and functional demands. In 2007 the cooperation between neurosurgeons and engineers resulted in the first rapid prototyping and technologies implant production and implantation in Slovenia. Since then it is a standard procedure in UMC Maribor. In Slovenia the first DBS procedure was performed in Maribor in 2008. A good microdrive, an apparatus useful with a stereotactic assembly or an equivalent apparatus to hold and direct a surgical instrument into a target, is essential for a successful operation.

Results
By using a CT scan of a patient’s injured skull, the skull can be reconstructed and the missing part of the skull modelled. Based on the preoperative imaging a patient specific – custom-made implant is constructed by the engineers. The surgeon implants the missing part into the skull of the patient. In cooperation with the engineers, a new microdrive was developed which significantly shortens the duration of the DBS operation and enables us not only to ensure a smoother course of the procedure but also a more precise microelectrode placement.

Lessons
Custom-made bespoke implants not only technically improve the procedure, they can also release some stress by enabling effective pre-surgical planning as well as reduce costs and, most importantly, enable the patient’s return to their normal social life. After the DBS procedure the quality of life and work capability are clearly improved with all of our patients.
New Medical Technologies Workshop for Deep brain stimulation in patients with movement disorders

Dušan Flisar, MD - University Clinical Center Ljubljana, Neurology Clinic, Ljubljana, Slovenia

Issue
Deep brain stimulation (DBS) is an implanted electronic device. It modulates specific targets in the brain resulting in symptomatic improvement in a particular neurologic disease, like tremor, dystonia and Parkinson’s disease.

Description
One or two electrodes are placed in a specific target in the brain using stereotactic neurosurgical technique. The electrodes are connected to a small internal pulse generator (IPG), which is implanted in the chest under the skin. IPG contains 1. electronics that generates electrical pulses, which modulate local activity of the brain and 2. the battery that powers the system.

Results
The result of deep brain stimulation is reduction in tremor severity, dystonia and slowness of movements in parkinsonian patients. DBS method and the outcome of the procedure will be presented together with some illustrative cases of the operated patients.

Lessons
Deep brain stimulation improves the mobility and the quality of life of the operated patients and reduces the burden of disease. This may allow reintegration into the social environment, and sometimes even re-employment of the patient.
New Medical Technologies Workshop in Human-Robot Interface for a Powered Transfemoral Prosthesis based on Whole-Body Awareness

1. prof. Marko Munih, PhD - Laboratory of Robotics, Faculty of Electrical Engineering, University of Ljubljana, Trzaska 25, 1000 Ljubljana, Slovenia; 2. Luka Ambrožič - Laboratory of Robotics, Faculty of Electrical Engineering, University of Ljubljana, Trzaska 25, 1000 Ljubljana, Slovenia; 3. Maja Goršič - Laboratory of Robotics, Faculty of Electrical Engineering, University of Ljubljana, Trzaska 25, 1000 Ljubljana, Slovenia; 4. Prof. Dr. Roman Kamnik - Laboratory of Robotics, Faculty of Electrical Engineering, University of Ljubljana, Trzaska 25, 1000 Ljubljana, Slovenia

Issue
Lower-limb loss is a disabling condition affecting health and quality of life, particularly for elderly people. Powered lower-limb prostheses were introduced to allow amputees to perform locomotion-related tasks which are not easily performed with passive prostheses, and to reduce physical effort.

Description
We focused on the development and pre-clinical validation of non-invasive cognitive technologies to functionally replace the lower-limb and provide assistance in daily activities. A modular wearable robotic system was developed, which consists of a compliant active transfemoral prosthesis and wearable active orthoses for assisting the movement of healthy joints. The system’s human-robot interface was based on monitoring the movement of the user through a network of wireless non-invasive sensors in order to achieve whole-body awareness. Inertial measurement units, attached to body segments and pressure-sensitive insoles, embedded into the shoes, provided enough information for the system to decode the intended movement of a patient.

Results
By using multi-sensory fusion techniques, the system could provide information about the wearer’s kinematic parameters and intent instantly, without requiring any supervised machine learning for each user. Termed “whole-body awareness control”, the intention detection and prosthesis control are combined in a single state machine, where specific rules for detecting intent govern the transitions between control states for the prosthesis. The processing runs in real-time on a portable micro-processing unit combined with field-programmable gate array for high-frequency requirements. The system can recognize intent and detect phases in activities such as level-ground walking, sitting down, standing up, and ascending stairs.

Lessons
Through numerous experiments with 9 healthy subjects and 7 amputees we showed that our non-invasive whole-body awareness approach can provide smooth intention detection and control during locomotion activities, with no or minor failure rate (>99% success rate) during steady-state gait and high success rates for step-by-step stair ascent (> 94,1%), and stand-to-sit (> 98,7%) or sit-to-stand (>96,1%) movement.
New medical technologies in rehabilitations robotics: experience from Slovenia
prof. Zlatko Matjačič, PhD - University rehabilitation institute, Republic of Slovenia, Slovenia

Issue
Ageing societies with related increase in incidence of neurological diseases increase a need for efficient rehabilitation of movement disorders. Due to budgetary constraints it is not sustainable to increase the extent of institutional rehabilitation facilities by simply increasing the number of rehabilitation professionals; viable technological solutions that will enable providing treatment to enlarged number of patients by the same number of clinical professionals are needed.

Description
Rehabilitation robotics has demonstrated a potential to overcome this gap by increasing the productivity of rehabilitation treatment while delivering rehabilitation outcomes comparable to conventional approaches. However, rehabilitation robots are usually complex systems with many degrees of freedom that are rather expensive, which is why their application is currently limited only to larger rehabilitation centers. An alternative to complex rehabilitation robots could be development of simpler robotic devices that would still adequately address relevant clinical needs. The main objective of this contribution is to present our experience on developing and deploying simple rehabilitation robots in clinical practice.

Results
In the last decade we have developed robotic devices for training dynamic balance during standing and walking, for training sit-to-stand maneuvers and for training movement of upper extremities. All mentioned rehabilitation robots have been in parallel within the processes of clinical testing as well as commercial deployment by our industrial partners. The results of clinical tests are indicating that the quality and the outcome of rehabilitation treatment delivered to the patients when using the developed devices is entirely comparable to conventional rehabilitation methods while the number of physiotherapists/occupational therapists needed to deliver rehabilitation may be significantly reduced.

Lessons
In the future we may expect that simple robotic rehabilitation systems as presented will be used also in non-clinical institutions such as elderly homes in order to enable practicing various aspects of mobility in humans.
Promoting active aging by innovative technologies in developing and manufacturing of customized assistive products for elderly

1. ass. prof. Despina Mihaela Gherman MD PhD - The University of Medicine and Pharmacy, Romania; 2. Ana- Maria Vasilescu Eng PhD - INC Dip - Division: Leather and Footwear Research Institute, Bucharest, Romania; 3. Corina Oancea MDPhD Lecturer - The University of Medicine and Pharmacy; 4. Doina Lăcrămioara Tudorache MDPhD Lecturer - The University of Medicine and Pharmacy; 5. Maria-Magdalena Ciucică MDPhD Professor - The University of Medicine and Pharmacy; 6. Roxana Mirică MDPhD Assistant Professor - The University of Medicine and Pharmacy

Issue
Aging is a hallmark of the demographic trends in the contemporary societies as it is evident in the developed and developing countries as well. The projection of the statistic data for the next years, shows that by 2060, the share of population aged 65 and over is expected to double in Romania (from 15% to 30 %) while the working age population, aged 20 to 64 is decreasing (with 30% by the year 2060), showing one of the deepest declines in Europe. At the same time, the strong net emigration reduced the cohort currently aged 25- 30 by 20% (according to Eurostat population projection). The demographic dependency ratio is expected to rise dramatically and reach the value of 100 by the year 2055, showing a sharp reverse. (INSSE Statistical DB Tempo. Romania).

Description
Romania has devised the Strategy for Protection of the Elderly and Promotion of Active Ageing supported by the EU, as a part of The National Reform Program. It has been proven that up to 40-50% of the old people have lost their autonomy and need home long-term care because of the walking impairments. The authors are analysing all the possible biomechanical changes of the old foot in order to design customized footwear.

Results
Once the project is implemented, it will promote harmonious aging and independent life, both by the health care and social assistance systems.

Lessons
The customized footwear which fits the morphologic and functional modifications of the old foot might become an assistive product acting as a facilitator towards diminishing the age-related disability.
New Medical Technologies and Their Impact on Functional Ability. Subtitle: 3D Scanning and Simulation of Function

1. ass. prof. Andreja Rudolf, PhD - Institute of Engineering Materials and Design, Faculty of Mechanical Engineering, University of Maribor, Smetanova ulica 17, 2000 Maribor, Slovenia; 2. Dr. Tomaž Brajlih - Production Engineering Institute, Faculty of Mechanical Engineering, University of Maribor, Smetanova ulica 17, 2000 Maribor, Slovenia; 3. Prof. Dr. Igor Drstvenšek - Production Engineering Institute, Faculty of Mechanical Engineering, University of Maribor, Smetanova ulica 17, 2000 Maribor, Slovenia; 4. Prof. Dr. Olivera Šauperl - Institute of Engineering Materials and Design, Faculty of Mechanical Engineering, University of Maribor, Smetanova ulica 17, 2000 Maribor, Slovenia

Issue

Advances in complex medical rehabilitation allow people with spinal cord injuries to return to a wider social and working environment. The result is an increased number of consumers of disabled functional clothing. It indicated a significant relation between clothing self-esteem and life satisfaction, particularly for people with disabilities. They like to wear comfortable and functional clothes with an attractive appearance and, due to particular chronic urinary infections, incontinence, irritation and inflammation of the skin and pressure sores, and other health problems, this is an opportunity to appear equally in the social environment.

Description

The research with 3D scanning and simulation technology was done on three levels: (a) device development to scan the paraplegics, scanning with the Artec Eva 3D optical hand scanner and processing of 3D digital models of paraplegics, (b) the usage of synergistic formulation of different natural antimicrobial and antioxidant compounds in textile materials to prevent against the negative actions of pathogens, and (c) the development of functional clothing by using a clothes virtual simulation technology to scan the 3D body models and designing clothes specific to the paraplegic's needs to prevent/reduce potential health problems.

Results

Reliable 3D body models were acquired by using the scanning, modelling and reconstruction techniques. Based on the pathogenic microorganisms (E. coli, S. aureus and C. albicans) and antioxidativity as a result of combining eugenol with chitosan, compounds in clothing were confirmed environmentally safe. The clothes are ergonomically comfortable to ease seating and movement in a wheelchair. They include antimicrobial textiles in specific parts, e.g. crotch area and areas where cloth comes in contact with the body and wheelchair.
Lessons

The effectiveness of the 3D scanning and simulation technology for personalized functional and aesthetic clothing indicates its potential also in designing fashion accessories for the disabled, e.g. fashion orthoses that users can wear as an accessory.
Why learning and teaching in a workshop?

Olivera Masten Cuznar, MD MSc - Health Insurance Institute, Ljubljana, Slovenia

Issue

Medical assessors and supervisory doctors working in health and social insurance should share their knowledge and experiences in a modern way to be able to cope more effectively with the challenges of their work and to ensure the desired results.

Description

The workshop is a suitable and acceptable way to confront expert findings and challenges about any of specific issues (Taxonomy Of Educational Objectives, Bloom et al 1956). The target audience of the workshop are those who are teaching at the university, are mentors to trainees at practice level or are already working in health and social insurance. Experts, who are experienced group leaders and understand the issue theoretically and practically, are invited to prepare keynote lectures for the necessary basic knowledge. The participants are working in small groups in the sense of motivation, empowerment, communication, team-building and development. Modern assessment methods are used (pre-reading, homework, video, role-play, vignette, field-work, etc.) to prepare a module for teaching in series of workshops on how to perform better work.

Results

At the end of the workshop the participants are able to:

- recognise critical points,
- define possible barriers and gaps,
- communicate effectively,
- value cost effective solutions,
- promote structured approach with early interventions.

Lessons

The goal of the workshop is to exchange country experiences, to unite the professional aims, learning objectives, attitudes and skills and find possible options for spreading the knowledge in following workshops – for students, trainers and those working at practice level. William Arthur Ward said: “An average teacher is telling, a good one is explaining and an excellent one is inspiring.”

We want to inspire! An international workshop “Do stigma and discrimination influence supervision decisions?” will be organized.
Do stigma and discrimination influence supervision decisions?


Issue

Behavior of supervisory doctors may be influenced by stereotypes and prejudice against supervisory doctors, special profession (treatment) and by actual or unauthenticated facts about the problem and/or group of professionals.

Description

All above mentioned are to be presented in the introductory lecture. This is to be followed by workshop about experienced and anticipated discrimination in supervisory settings, including identifying stereotypes among supervisory doctors. Examples are to be presented, discussed and compared to experience of workshop participants.

Results

The problems in prejudice and discrimination are to be shed light to through case reports from the doctors of the Control Department of the Health Insurance Agency. In conclusion we should make a list of possible communication gaps and answers to highlighted situations. The workshop should provide a set of communication tools to overcome communication problems related to stigma and discrimination and improve the professional competence of supervisory doctors involved.

Lessons

We believe that the results of this workshop could influence behavior of supervisory doctors involved in every supervisory setting. It should improve recognition and coping and improve communication prone to be influenced by prejudice.
Evidence based disability evaluation?

1. Wout de Boer, MD PhD - asim, Swiss Academy of Insurance Medicine, University Hospital Basel, Basel, Switzerland; 2. Diane Brandt, MD PhD - NIH Boston, USA; 3. Eva Kosta, MD - Pension Insurance institution of Slovenia; 4. prof. Haije Wind, MD PhD - University of Amsterdam- Netherlands

Issue

Evaluation of disability for work is carried out differently in different countries, albeit on the basis of many similarities. One common part is the assessment of a claimant’s actual capacity to work. In this workshop we compare the principles and practices of these assessments in the Netherlands, Slovenia and the US. What evidence is there to underpin the different practices?

Description

1. Setting the stage: what is disability evaluation about; what are underlying principles (validity, professional consensus, reliability, other); what manners of evaluation do exist (group decisions of experts, formalised job matching, other). Evidence seems to be the logic of the process and scientific evidence for some steps.

2. Evaluating work disability in Slovenia (two or three experts, mostly physicians of different specialist fields depending on the claimant’s health problems, decide together about the degree of disability. Documentation is from treating source and from employer and claimant. Claimant and an employer’s representative are interviewed. Work capacity is expressed and matched against the work conditions.

3. Evaluating work disability in the Netherlands (an insurance physician assesses functional capacity, a labour experts looks for suitable jobs and the loss of earning capacity is calculated).

4. Evaluating work disability in the US (trained staff assess claimant allegations and medical evidence. If medical evidence is insufficient, additional information from the treating provider or an independent medical consultant is requested). The National Institutes of Health and Boston University developed a comprehensive self-report assessment using item response theory and computer adaptive technology. Psychometric studies of the behavioural health and physical function scales support efficiency, person fit and construct validity.

Results

Discussion of the underlying principles and the evidence that supports the different manners of working

Lessons

Evidence to support different practices is overdue

Implementation of ICF in European social security
Background

The international classification of functioning, disability, and health (ICF) has been introduced as a framework model and as a classification in European social security to varying extent. In a recent textbook by Escorpizo et al., examples of the use of ICF were drawn from three Nordic countries. ICF based projects, instruments, and applications have been introduced in many other countries, but an overview is so far lacking. The aim of this workshop is to start an inventory on how the ICF is implemented in European social security.

Methods

In the workshop, several national applications and the use of the ICF will be presented.

Results

Planned (but not yet confirmed) inclusion of the following developments:

Belgium: An ICF based, patient-reported instrument for the assessment of disability among persons handicapped in daily life

France: An ICF based tool for the assessment of work disability in social security

Netherlands: A new ICF based assessment system for benefits to young adults

Switzerland: The adoption of the ICF framework for disability assessments

Iceland: Revisions of ICF based assessments in vocational rehabilitation

Sweden: ICF based assessment methods for work disabled persons on sick leave

Conclusions

The workshop will present a wider description of ICF use in European social security. After the congress, a separate report will be produced for publication on the EUMASS website.

Advantages of arthroscopic shoulder reconstruction for successful functional recovery after rotator cuff injuries
1. Davor Kakarigi, MD - Institute for Medical Assessment, Professional Rehabilitation and Employment of Disabled Persons, Zagreb, Croatia; 2. Miškulin M - Orthopaedic Institute, Clinical Hospital “Sveti Duh”, Zagreb, Croatia; 3. Uremović M - Institute for Medical Assessment, Professional Rehabilitation and Employment of Disabled Persons, Zagreb, Croatia

Background
Rotator cuff injuries mostly result from a fall on an outstretched arm, lifting heavy weights, as a concomitant injury with humeral and clavicle fracture, shoulder luxation or as a consequence of degenerative processes. Rotator cuff ruptures more often happen on a dominant arm, and therefore can permanently reduce the work ability. Treatment can be surgical or conservative. Considering severity, location, cause of injury and the age of the patient – surgical treatment can be arthroscopic, arthroscopy–assisted and open surgery.

Methods
The research enrolled 76 persons, 53 male (aged 31-62) and 23 female (aged 26-59) who sustained the rotator cuff ruptures. 56% suffered massive ruptures, 21.1% SLAP ("superior labrum anterior to posterior") lesions and 15.8% partial rupture. The most common cause were degenerative processes, heavy weight lifting and falls on an outstretched arm. All patients have undergone arthroscopic surgery. Postoperatively, the immobilization was undertaken using an orthosis during 6 weeks, followed by physical therapy.

Results
We estimated the functional results using the DASH index (Disability of Arm, Shoulder and Hand) measurements of shoulder movement range and muscle strength of the operated arm. Finally, 81.6% of patients regained full movement range and normal muscle strength. Lasting painful and reduced abduction and reduced muscle strength remained at 13.2% of patients and 5.2% of patients needed the second surgery. An average DASH index was 6.7.

Conclusions
Arthroscopic shoulder reconstruction enabled an efficient treatment of rotator cuff injuries, very similar to the results of open surgery cited in the literature, and also provided some advantages coming out of the comparably less traumatization effect to surrounding tissues. Consequently, it enabled early onset of focused rehabilitation, followed by significantly shorter convalescent period and sick leave. Finally, no differences were observed in functional recovery and return to the workplace in comparison to the clinical outcomes cited for an open surgery techniques.

Organisation of Sector of Medical Assessors in The Pension and Disability Insurance Institute of Slovenia
1. Milošević Miloš, MD - The Pension and Invalidity Insurance Institute of Slovenia, Slovenia; 2. Dean Premik - The Pension and Invalidity Insurance Institute of Slovenia

**Issue**

**Description**

A very important part of the Pension and Disability Insurance Institute (PDII) of Slovenia is the Sector of Medical Assessors (SMA) which comprises of the Board of Medical Assessors of the First- and Second Degrees. The board includes 22 full-time and 250 outsourced medical assessors, 80 non-medical assessors, 3 managers and 37 administrators. The First Degree Board of Medical Assessors (FDBMA) perform their duties on eleven different locations around the country (Maribor – HQ, Murska Sobota, Kranj, Jesenice, Celje, Ravne, Velenje, Koper, Nova Gorica, Novo mesto). They are responsible for acquiring complete medical and work documentations and, based on these documents, assess an insured person’s working (in)capability, physical disability, the need for help of a third person and the justification of occupational rehabilitation. The Second Degree Board of Medical Assessors (SDBMA) is located in Ljubljana, together with the HQ of the Board of Medical Assessors. The assessors are responsible for revisions of the first degree’s assessments, resolving insurants’ complaints, cooperating in court proceedings and for establishing the professional standards and criteria for all medical assessors.
**Presentation of the University Rehabilitation Institute, Republic of Slovenia**

1. Aleksandra Tabaj, PhD - University Rehabilitation Institute, Republic of Slovenia, Slovenia; 2. Črtomir Bitenc - University Rehabilitation Institute, Republic of Slovenia

**Issue**
Presentation of the University Rehabilitation Institute, Republic of Slovenia.

**Description**
In the 50 years of its existence, the Institute has become an internationally recognized institution, which with its expertise, experience, research and frequent participation of its experts at important international conferences and workshops, promotes the development of rehabilitation. The Institute can be ranked among the most successful organizations in the field of healthcare.

**Results**
Medical departments are the main area of Institute’s work. They specialize in comprehensive in- and out-patient rehabilitation of adults and children with impairments of central and peripheral nervous systems, mobility-related body structures and functions, as well as in the treatment of patients with chronic pain and cancer. Our services include specialized examinations, assessment and diagnostics of locomotion (kinesiological diagnostics), neurophysiological and internal functional diagnostics, testing and prescription of specific assistive and rehabilitation devices, diagnostics and treatment of spasticity and pain, measurements of gait, posture and balance, isokinetic dinamometry, measurements of pressure in shoes, ultrasound, electrophysiological examinations (EMG, EEG, SEP, MEP, sensorimetry), identification of peripheral vascular disease or venal disorders, exercise testing, ergospirometry and testing of respiratory functions, diagnostics of sacral functions, driving ability tests, psychological testing. Beside medical departments also vocational rehabilitation is an important part of our work. The center for vocational rehabilitation carries out team-based planning, performance and assessment of programs of vocational and employment rehabilitation as an integral part of comprehensive rehabilitation. Our work covers the areas of healthcare, employment and pension and disability insurance and legislation. Our programs are based on contemporary rehabilitation doctrine and include team work, active role of users and connection of environmental resources. Public mandate in developmental work is an issue for researchers in Development Centre for Vocational Rehabilitation; for the last 10 years our work includes analysis, best practices, researches, etc.
Externalizing behavior problems in adolescence and sickness absence in adulthood


Background

Child and adolescent mental health problems have been shown to continue into adult years as well as have impact on adult socioeconomic outcomes, including sickness absence. Previous studies of sickness absence have mainly focused on identifying psychosocial or occupational risk factors while the impact of child and adolescent mental health on sickness absence has been less studied. The aim of the present study was to investigate whether externalizing behavior problems during the development increase risk for sickness absence in young adulthood.

Methods

The study sample included 2,690 twins born 1985-1986 in Sweden that have participated in Twin Study of Child and Adolescent Development (TCHAD). The twins were followed repeatedly at ages of 8-9, 13-14, 16-17, and 19-20 years. Externalizing behavior problems during the child development were evaluated by Child Behavior Checklist. Data on sickness absence were obtained from the Swedish National Social Insurance Agency for years 2001-2010. Logistic regression analyses were applied to calculate odds ratios and the importance of familial factors was analysed by applying conditional logistic regression models.

Results

The prevalence of sickness absence during the follow-up was about 12% and 16% among males and females, respectively. Externalizing behavior problems measured in late childhood implied an increased risk for sickness absence in young adulthood (OR: 1.03 (1.01-1.04)). Also behavior problems present during the adolescence increased the risk for future sickness absence (13-14 years: OR: 1.03 (1.02-1.05), 16-17 years: OR: 1.03 (1.01-1.04), 19-20 years: OR: 1.02 (1.01-1.04)). The associations were not explained by familial factors.

Conclusions

Sickness absence in young adulthood was significantly predicted by externalizing behavior problems measured in late childhood and adolescence. The results suggest that early implementation of programs supporting a successful start in working life may benefit children with externalizing behavior problems.
The importance of surgical treatment and physiotherapy of lesser arc wrist injuries in work ability maintenance

1. Davor Kakarigi, MD - Institute for Medical Assessment, Professional Rehabilitation and Employment of Disabled Persons, Zagreb, Croatia; 2. Nikolić T - Department of Hand Surgery, University Hospital of Traumatology, Zagreb, Croatia; 3. Pavić R - Department of Hand Surgery, University Hospital of Traumatology, Zagreb, Croatia; 4. Uremović M - Institute for Medical Assessment, Professional Rehabilitation and Employment of Disabled Persons, Zagreb, Croatia

Background

Maintenance of work ability presents an important medical, social, legal and economical issue. Lesser arc wrist injuries can result in reduction of work ability because the wrist represents a complex anatomic region and a highly functional and intricate structural joint. The classic mechanism of a fall on an outstretched hand can produce a broad spectrum of injuries. Our objectives were to present functional rehabilitation and return of the injured to the workplace upon the timely surgical intervention on the lesser arc wrist injuries, followed by optimal physiotherapy.

Methods

The research has included 29 patients (28 male and 1 female) with the average age of 46.7, who have sustained the lesser arc wrist injuries in a road traffic accident or due to a fall in the workplace. They have undergone surgery within 24 hours after the injury onset. Following the reposition of the dislocated carpal bones, they received temporary fixation with Kirschner wires and at the same time the treatment of the scapholunate and lunotriquetral ligament. Postoperatively, the immobilization was undertaken using a splint, lasting for 4-6 weeks, and then by the application of orthosis. Kirschner wires were removed 6-8 weeks later, physical therapy followed for 10-12 weeks.

Results

At the end of the treatment we estimated the functional results using the DASH index (Disability of Arm, Shoulder and Hand) measurements of movement range and power of fist grip. Measurements have shown the average movement range of 86.5%, and the power of fist grip of 89% in comparison with the healthy hand. DASH index was 7.4% on average. 86% of patients successfully returned to their workplace.

Conclusions

High quality diagnostics and timely surgical stabilization followed by early onset of individual physical therapy enable very good functional recovery following lesser arc wrist injuries, and the successful return of the injured persons to their workplace.
Innovative model of social insurance doctor’s education.

1. Hart Grażyna, MD - Polish Social Insurance Institution (ZUS), Poland; 2. Lipowska Małgorzata - Polish Social Insurance Institution (ZUS); 3. Winciunas Piotr - Polish Social Insurance Institution (ZUS)

Issue

Medical evaluation of incapacity for work is a very difficult issue. All doctors working for insurance institutions ought to evaluate their patients in the same way. Thus, we need a new approach to education of evaluating doctors.

Description

One of the most important ZUS’ (Polish Social Insurance Institution) tasks is evaluation of incapacity for work by ZUS certified doctors and medical boards. All these doctors are specialists in various medicine fields (for instance internal medicine, surgery, psychiatry). Unfortunately, there is no such specialization as insurance medicine in Poland. For that reason ZUS has developed its own training system of medical certification involving:

- trainings carried out by Department of Medical Certification (central),
- regional trainings (regular workshops),
- individual trainings (including e-learnings).

Additionally, Department of Medical Certification publishes Educational Notebooks three times a year.

Results

Implementation of this system allows to improve and standardize medical certification in all ZUS branches.

Lessons

Evaluating doctors need permanent postgraduate education. ZUS has to prepare and amend guidelines and their training system for their doctors all the time.
The need for ethical guidance in the conduct and reporting of independent medical evaluations

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Issue

Referrals for independent medical evaluations (IME) in Sweden are substantial and increasing. As of September of this year 4,611 IME’s have been performed and next year there is a estimated need of at least 14 000 according to a report from the Swedish national social security agency. However, IMEs have been criticised for being less than transparent, unreliable, and subject to assessor.

Description

An independent medical evaluation differs from a traditional physician–patient model since the primary responsibility is to provide a service for the hiring third party and not for the patient. Third parties such as a national social security agency, insurance company or employer may request an IME to evaluate disability, limitations of function or rehabilitation potential. Legal and ethical concerns may arise during an IME. What happens, for example, if a doctor discovers a separate medical problem that requires treatment? Are they obliged to inform the patient or their caregiver? Should patients always have access to the result of their IME? Without clear guidance regarding such issues, assessors may show inconsistency in their approach.

Results

Eight principal ethical practice recommendations will be presented. The principals are based on international standards and adapted to Swedish conditions by a group of medical doctors, specialists in Rehabilitation Medicine, performing IME’s at Swedish Universities and rehabilitation facilities. Furthermore, results of how patients perceive the recommendations in relation to an IME will be shown.

Lessons

It is critical that all parties involved are aware of the ethical challenges involving IMEs, and have access to clear guidance around these issues, in order to guarantee that these assessments and the resultant reports are ethically defensible. The practice recommendations are one step closer to a more professional approach, which might eventually involve an accreditation of independent medical evaluators. Such steps are now underway in Sweden.
Coaching as a method for rehabilitation; an intervention study in the county of Västmanland, Sweden

1. Tuula Wallsten, PhD - County council of Västmanland; 2. Ann-Sophie HAnsson - County council of Västmanland, Sweden

Background

There is a multiplicity of sources related to the increased mental illness in society. Our results reveal on associations not only between sick leave and stressful work conditions but also between conditions in private life, lack of recovery and coping strategies. The result suggests further research on relationships between the method coaching, sickness absence and modifying factors for rehabilitation and health.

Methods

The population, 100 individuals, 26 men and 74 women, sicklisted for mental illness were recruited to a rehabilitation programme A reference group of 100 persons, were matched for comparison of sickness absence. Both of the groups were followed before, after the intervention and after 12 months. Self-rated questionnaires at baseline and at 6 and 12 months were used measuring the participants mental health and quality of life (EQ5D, MADRS, HAD, GSE, KEDS). Sickness absence was measured by data (days of sickleave) from the register of the Social Insurance Agency.

Results

86 persons completed the intervention programme and 72 of the total population were also followed-up at 12 months. The overall result indicates that majority of the participants (72%) were back at work or in other workrelated activities partly, or at full time after 6 month (end of the intervention). At group level all items measuring mental health and quality of life improved between inclusion and one year follow up. EQ5D from 0,51 to 0,77, MADRS 21,34 to 9,07, KEDS 28,72 to 16,21 and HADS Anxiety from 10,80 to 5,91 and HADS Depression from 8,62 to 3,61. All changes are statistically significant.

Conclusions

Based on the total results we assess that coaching with its individual adjustment is a successful method for workrelated rehabilitation for those with mental illness. Factors, such as life quality, depression, exhaustion and self-reliance were significantly changed over time in the study group and clearly among women.
Postgraduate education in relation to safe work

1. Lovrenov Života, MD - Pension and Disability Insurance Institute of Slovenia, Slovenia; 2. Neža Žorž, MD - private practice, Slovenia

Lessons

Graduate courses provide some theoretical knowledge about work capacity assessment, but when young physicians start their own practice, they see three to six patients a day in relation to temporary work disability. The Department of Family Medicine participates in vocational training and has introduced the ‘workers healthcare’ module. The module consists of topics such as ergonomics, vocational rehabilitation, work-related disease, short-term disability and disability-based retirement. The module consists of two days of theoretical lectures and practical work, ending with the participants each presenting a case of permanent work disability.

When physicians with at least four years of professional working experience in their respective fields express a desire to participate in the field of insurance medicine and social security, either professionally or contractually, they must undergo additional training and education before being able to work. They obtain basic knowledge as trainees who work under the supervision of a mentor for three months. During this period, the candidates certified to work in insurance medicine and social security must attend a one-day seminar where they become acquainted with the legislation and the criteria in the field. All medical assessors are acquainted and comply with the Code of Conduct of Experts of Insurance Medicine and Social Security. To ensure a comprehensive professional training, all medical assessors can participate in different congresses and professional meetings in different medical fields. In cooperation with the professors of the Faculty of Medicine and the representatives of clinics, we create a unified professional practice in the field of insurance medicine and social security. The described training was attended by around 350 physicians of different specializations.
The dynamics of disability assessment in Slovenia with emphasis on neoplasms between 2003 and 2012

1. Sonja Modic-Sočan, MD - the pension and invalidity insurance institute Slovenia, Slovenia; 2. života lovrenov - the pension and invalidity insurance institute Slovenia

Background

The structure and dynamics of invalidity due to neoplasms under the International Classification of Diseases, X. revision, in Slovenia between 1.1.2013 and 13.12.2012 has been studied based on 184,018 final and positive expert opinions on invalidity of the Pension and Invalidity Insurance Institute of Slovenia's expert bodies. Neoplasms were the fourth most common reason for invalidity with 10.2%, right after musculoskeletal disorders with 29.0%, mental and behavioural disorders with 17.8% and diseases of the circulatory system with 12.0%. They were quoted as the main reason for invalidity, with an average of 1,875 favourable expert opinions annually and a high annual growth rate of 5.2% on average. Neoplasms were the second most common reason for permanent work disability with 18.8% and an average annual growth rate of 4.8%, the third most common reason for disability which required reduced working hours with 14.1% and an average annual growth rate of 4.4%, and the fourth most common reason for disabilities with full working hours at 10.2% and no significant dynamics. Due to neoplasms, the permanent work disability was assessed in 53.0% of cases, reduced working hours in 34.8% and full working hours with restrictions in 12.1%. The most common forms were malignant neoplasms of the female genitals with 28.1% and an average annual growth of 3.0%, followed by neoplasms of the digestive system with 22.9% and 6.6% average annual growth, malignant neoplasms of the respiratory system with 13.6% and 5.7% average annual growth and neoplasms of the lymphatic and haematopoietic tissue with 9.0% and the largest average annual growth rate of 8.1%. The most common reason for disability were the malign neoplasms of the female genitals, followed by malign neoplasms of the digestive and respiratory systems and lymphatic and haematopoietic tissues, all with a high annual growth rate.
Schizophrenia predictive genetic study, legislation, rehabilitation and social inclusion

1. Maria Marina Tanasie, PhD - Medical Expertise Service Dolj – Romania, Romania; 2. Veronica Mercan - Medical Expertise Service Dolj

Background

Schizophrenia is a severe psychosis that occurs in young adults, usually chronic and characterized from a clinical point of view by mental dissociation signs, affective and mental disorders and delusional slur, which generally lead to a break in contact with the outside world and an autism reaction. The study took into account the correlation between the capacity of the work with the clinic status, with the type of incapacity in order to be able to provide the option of returning to society to individuals affected by schizophrenia and undertake useful tasks.

Methods

The research was performed during a five-year period 1994-1999 and extended and compared to 2010-2014, being studied a set of 600 patients. They are the patients registered by the Mental Health Care Center Dolj and the Medical Expertise Service and have been investigated based on a nine items datasheet. From this group of patients, a sample of 24 individuals has been selected and genetically studied. Objectives: to accurately establish the critically important background-collateral history through family research, genetic case study, full medical and psycho-social investigation, and review criteria for assessing the current labor in accordance with existing legislation, enhancing the criteria for professional orientation and reorientation of people with schizophrenia.

Results

The assessment of labor for individuals various biological limitations, falls under the responsibility of the medical expertise commissions who must evaluate morphological and functional outstanding that could be used in carrying out a professional activity, but also, in addition, a quantification of professional labor demands, while establishing a correlation of those two elements.

Conclusions

In assessing the labor capacity, the patient’s psychic deficit must be taken into account, but also the age of onset, the school training, micro-and macroclimate, interference with other psychiatric disorders, and for our study, also a genetic and family analysis based on lab determinations.
Searching PubMed to identify studies on the prognosis of work disability

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Background
Searching the medical literature for evidence on prognosis is an important aspect of evidence-based disability evaluation. Making a prognosis of the chances of still being disabled after a period of time implies rather complex predictions that can generate complex search questions. The aim of this study was to develop and evaluate a comprehensive and efficient search strategy in PubMed, to be used by either researchers or practitioners, to identify articles on the prognosis of work disability.

Methods
We used a diagnostic test analytic framework. Firstly we created a reference set of 225 articles on the prognosis of work disability by screening a total of 65,692 titles and abstracts from 10 journals from the period 2000 to 2009. The included studies had a minimum follow-up of six months, participants between the ages of 18 to 64 years, with a minimum sick leave period of four weeks or longer, or having serious limitations on activity in 50% of the cases. Using text-mining methods, we extracted search terms from the reference set and, according to sensitivity and relative frequency, we combined these into search strings.

Results
Both the research and the practice search filter outperformed existing filters in occupational health, all combined with the Yale-prognostic filter. The Work Disability Prognosis filter for Research showed a comprehensiveness of 90% and efficiency, expressed in a more user-friendly fashion as the Number Needed to Read = 20.

Conclusions
The Work Disability Prognosis filter will help practitioners and researchers who want to find prognostic evidence in the area of work disability evaluation. However, further refining of this filter is possible and is needed, especially for the practitioner for whom efficiency is especially important.
The role of rheumatological evaluation in the process of professional reactivation among patients with rheumatoid arthritis

Dean Sinozic, MD - Slovenia

Issue
Rheumatoid arthritis (RA) is a chronic, inflammatory disorder with extremely variable mode of onset and course. Pain and disability have a negative impact on the psychological and social functioning, the consequences of which include mental distress, fatigue and depression.

Description
The development of the 2010 ACR/EULAR new classification criteria for RA, introduction of the «Treat to target (T2T)» strategy in the same year, significantly contribute to identify patients in the very early stage of disease on one side and optimised therapeutic outcome in RA at the other side. Remission is an achievable goal in many patients and rapid attainment of remission can stop joint damage.

Results
Rates of work cessation in RA patients after 10 years of disease duration is estimated to be around 35%. Apart from work cessation, production losses include sick leave and presenteeism (a work productivity lost). Study data shows that one-third of the total cost for patients with RA is caused by production losses. Risk factors for work cessation include the severity of the disease, functional impairments, job characteristics, socio-demographic, psychological and macroeconomic factors (3-6). The timing of patient’s return to work is unclear, but with new therapeutic strategy, tight control of disease, return to work can be achievable in 3-6 month timeframe.

Lessons
Many specific screening tools can be used to assess patients with RA with respect to their risk for work disability, such as RAWIS (Rheumatoid Arthritis Work Instability Scale) or EATA (Ergonomic Assessment Tool for Arthritis). The aim of this screening tools is to recommend necessary ergonomic modification as job accommodations for patients with arthritis. It’s important that vocational rehabilitation («a process to overcome the barriers when assessing, remaining or returning to work») intervention is provided in the early stages of work disability.
How common is change of primary diagnosis during an episode of sickness benefit? A register study of medical sickness certificate


Background

The aims of this study were to investigate how common change of primary diagnosis in medical sickness certificates is during a sick-leave spell, and to explore patterns of diagnostic changes.

Methods

The unit for analysis was episode of sickness benefit, that is, sick leave >14 days, which commenced between 2010 and 2012 in Sweden. For each case, the primary diagnosis was retrieved from the first and last/latest medical sickness certificate, respectively. The number of days of sickness benefit was linked to the cases. Any change of primary diagnosis in sickness certificates was analysed by diagnostic chapter according to the ICD-10, and this was done separately for women and men.

Results

In total, 803,041 cases of sickness benefit (63% women) were included in the study. During a sick-leave spell, 7.1% of female cases and 6.6% of male cases changed primary diagnosis to a diagnosis from another diagnostic chapter. The change of primary diagnosis increased with the number of days with sickness benefit. For females, this increase was from 2.0% for cases that lasted 15–30 days to 20.2% for cases that lasted >365 days. For males, the corresponding increase was from 1.8% to 21.2%. A change of primary diagnosis was least common among those initially sick-listed for mental disorders and musculoskeletal disorders. The patterns of changed primary diagnosis in medical sickness certificates were rather similar for women and men.

Conclusions

A change of diagnosis during a sick-leave spell needs to be taken into consideration by the sickness insurance system and in the actions taken by its administration. For example, in the contacts with the healthcare system to achieve optimal rehabilitation and other measures intended to facilitate return-to-work. The final, definitive version of this paper has been published in Scandinavian Journal of Public Health 2015;43(1):44–51 by SAGE Publications Ltd. All rights reserved.
Employability of patients with opioid addiction in inpatient treatment

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Background

Persons who use illicit drugs can face significant problems in finding and maintaining employment. Persons who use drugs are significantly less likely to be in employment than other adults of working age.

Methods

A cohort of 197 patients consecutively admitted to the detoxification unit at University psychiatric hospital Ljubljana was investigated. The research interview was administered during the first week of admission to the detoxification unit, the Treatment Outcomes Profile (TOP) and urine tests (UT) were administered on the day of admission and after twelve months.

Results

Employment rate in individuals entering inpatient treatment was 25.4%. Unemployment rate was higher among those with higher doses of opioid substitution therapy (U=2694.5; p=0.005). There were no differences in employment rate among those with co-occurring mental illness and those without (X^2=0.007; p=0.935), also there were no differences between male and female regarding employment (X^2=0.42; p=0.517) and between those with and without hepatitis C infection (X^2=2.545; p=0.111). Employment rate was not associated with abstinence after twelve months (X^2=0.448; p=0.503). There were no differences in employment rate after 12 months among those who abstain and those who do not abstain (X^2=2.52, p = 0.113).

Conclusions

Persons who use illicit drugs can face significant problems in finding and maintaining employment. It seems that higher doses of prescribed substitution therapy were associated with lower employability. However, patients with higher doses of prescribed substitution therapy could be more severely addicted. Having job before inpatient treatment was not related to abstinence after twelve months. Also, abstinence after twelve months is not directly associated with higher employability.
Medical prerequisites for long-term care insurance in Finland

Heikki Takkunen, MD. - Freelance, Helsinki, Finland

Issue
The time span of long-term care insurance is several decades. Therefore to enable fair payments, the insurer should have a good idea about trends in the morbidity and functional capacity in the target population.

Description
In Finland, a Nordic country of 5.5 million inhabitants, there is no long-term care insurance. The municipalities are responsible for the arrangement of long-term care. The client payments are graded according to personal income. In practice the expenses are mainly covered by taxes. The aim of this study was to observe medical prerequisites for long-term care insurance in Finland. The study is mainly based on the registries and population studies of National Institute for Health and Welfare and on the public registries of Statistics Finland.

Results
Life expectancy of the Finnish population has increased mainly due to decreased cardiovascular mortality. In 1971 life expectancy of the men aged 65 years was 11.4 years, in 2013 17.8 years. The respective figures for the coeval women were: in 1971 14.4 and in 2013 21.5 years. The population is graying: in the end of 2000 the proportion of the people aged 65 years and over was 15.0 %, in the end of 2013 this figure was 19.4 %. Population studies have shown, that health, functional capacity and welfare have improved. The proportion of the people living in long-term round-the-clock care has decreased. In the end of 2000 4.8 % of the people aged 65 years and over received long-term care with 24-Hour assistance. In the end of 2013 the respective figure was 4.2%.

Lessons
The risk of long-term care and the mortality of the Finnish population seem to be quite predictable. There are apparently no medical obstacles for long-term care insurance in Finland. Other reasons than medical decide, does this insurance come true in Finland.
The presentation of expert practice in assessing the assistance and attendance allowance (AAA)

1. Rus Marjan, MD - The Pension and Invalidity Insurance Institute of Slovenia, Slovenia; 2. Emilia Pirc Ćurić - The Pension and Invalidity Insurance Institute of Slovenia

Issue

The assistance and attendance allowance is one of the benefits of the social security in Slovenia. It is a supplementary monetary income intended for claimants with increased living expenses as a result of severe permanent impairments which call for the assistance of a third party to perform the most basic life functions. The benefit is granted exclusively on the identified medical condition of the claimant. The social situation of the claimant is not a criterion with AAA. The legislation only tentatively defines the basic life functions needed for a person’s existence. Based on the expert and legislative practice, in collaboration with expert colleagues from different clinics of the Ljubljana University Medical Centre, we have been creating more precise definitions of terms and criteria for identifying the AAA with the intention to standardise the assessment practice at the First and Second Degree Boards of Medical Assessors. We have named this collection of instructions, definitions and criteria the Expert Practice of the Institute. The primary needs for a person’s existence have been explained, which include self-feeding, dressing, putting on and taking off footwear, functional mobility inside and outside one’s house, independent personal hygiene and toilet hygiene. We have also established the need for continuous monitoring due to psychological disorders and provided definitions for blindness, low vision and reduced mobility, as well as the criteria for total immobilisation and secular aid and nursing care for people with the most severe impairments (extra AAA). The Expert Practice of the Institute serves as a guide for assessors when identifying the need for AAA, as well as family medicine physicians and physicians of other specialities when giving proposals for AAA.
Locked-in position at place of work as a predictor of sickness absence: a 2 ½ years follow-up study

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Background
Sweden’s labor market has changed over the last 25 years which has led to an increase in unemployment and a difficulty to get a permanent employment. Because of this, people are left in permanent positions that they do not consider their desired future profession, called locked-in position (LIP). An important consequence of this is work disability, early retirement and mortality. The aim of this study was to investigate how being in a LIP at place of work can predict sickness absence.

Methods
All people sick-listed in Sweden at the end of 2007 and ages 20-59 have one year later received a postal questionnaire (N =22 728). 48 % answered the questionnaire. Only healthy and occupationally active participants at 2008 (n=5847) were followed up for new sickness absence spells during period of 2 ½ years (2009-2011). 2,130 individuals had at least one period of sickness absence for ≥ 14 days. 793 individuals had a spell that lasted ≥ 90 days. Odds ratios (OR) were calculated using logistic regression analyses adjusted for age, sex, education, self-rated work ability and how well they were getting on at place of work. LIP was assessed retrospectively by questions on wanting to change assignments, place of work and profession and not having the possibility to make those changes.

Results
Those who were in a LIP at place of work had an elevated risk for a spell of sickness absence lasting ≥ 90 days OR 1.50 (CI 1.06-2.13). The corresponding results were; for absence ≥ 14 days OR 1.09 (CI 0.82-1.44), for absence ≥ 30 days 1.19 (0.89-1.61) and for absence ≥ 60 days OR 1.29 (0.93-1.78).

Conclusions
Retrospective self-assessment of being in a lock-in position at place of work was a predictor of long term sickness absence.
Work ability caused mental and behaviour disorders

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Background

Mental disorders and disorders of behaviour are one of the most important challenges of the public health in Europe connect with percent of disorders as well with the influence disease burden and inability, reduce quality of life and have huge social and economic consequences.

Methods

We collected data from Croatian Institute for Health Insurance and Croatian Pension Insurance Institute on the causes of sick leave and disabilities to determine the proportion of mental disorders and disorders of behaviour according to ICD-10, as a cause of temporary and permanent disability.

Results

In Croatia for the period January to August 2013., mental disorders as well the behaviour disorders were on the fourth place of cause of sick leaves (14,9%), after musculoskeletal diseases (33,0%), injuries (22,4%) and respiratory diseases (18,9%). According data of Croatian Pension Insurance Institute for 2013. year, mental and behaviour disorders were the first cause of permanent disability with 27,0% followed by neoplasmas (19%), cardiovascular diseases (16,0%), musculoskeletal diseases (12,0%), neurological diseases (8,0%), injuries (5,0%) etc. for the period January to August 2013., mental disorders as well the behaviour disorders are on the fourth place to the percent as the highest cause of sick leaves and the according data of HZMO for 2013 year mental and behaviour disorders are the first living cause for confinement of permanent disability with 27%.

Conclusions

Results points out the necessity of creating the new health strategy in prevention, recognition, early detection and treatment of mental diseases and behaviour disorders as well as the great need of return to work strategy and action.
Access to disability pension in patients affected by multiple sclerosis in Italy. A prevalence study

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Background

Previous studies showed that relevant proportions of patients affected by Multiple Sclerosis (MS) receive a disability pension (DP). The criteria adopted to grant a DP significantly vary country by country and there are no studies on the proportion of patients affected by MS who receive a DP in Italy.

Methods

From October 2014 to February 2015, we randomly selected a sample of patients treated at the Multiple Sclerosis Regional Centre of the San Luigi Gonzaga University Hospital (Piedmont, Italy), affected by MS by at least 10 years. Every patient underwent to a semi-structured interview about medical history, employment and social security benefits.

Results

We interviewed 198 patients, 138 (69.7%) of which were females. Their mean age was 49.2±10.2 years. One hundred thirty-five patients (69.2%) had a Relapsing-Remitting course, 37 (18.9%) a Secondary Progressive course and 6 (3.1%) a Primary Progressive course. Their median EDSS value was 3 (1.5-6.5). The mean time interval by the onset of the disease was 18.9 (± 7.8) years. One hundred twenty-three patients (62.1%) were employed – 37 (30.1%) in the industry and 85 (69.1%) in the tertiary sector – 31 (15.6%) were unemployed and 42 (21.2%) were retired. Thirty-four patients (17.2%) declared to have changed their job and 35 (17.8%) to have ceased working because of MS. Thirty-eight patients (19.2%) were receiving a DP. The median EDSS value was 5.5 (3.5-6) when the DP were granted. At univariate analysis, the probability to receive a DP was significantly higher in patients who have changed their job (OR: 4.8, CI: 2.1-11.1, p=0.0003) or have ceased working (OR: 5.4, CI: 2.4-11.9, p=0.0001) because of MS and in patients that were working in the industry (OR: 4.9, CI: 1.6-14.7, p=0.005).

Conclusions

The working area and having previously had to leave a job because of MS positively influenced the risk to receive a DP.
Functional outcome of the rehabilitation of the locomotor system injuries sustained in road traffic accidents

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Background

Injuries represent a considerable problem of public health in Croatia and worldwide due to their high share in the total number of all deaths and ailments. According to the international research results, road traffic accidents are currently the leading cause of all injuries. Our objective was to show the functional outcome of surgery treatments and physical rehabilitation of persons who sustained injuries of their locomotor system in road traffic accidents.

Methods

We have retrospectively analyzed medical documentation of the total number of 248 traumatized persons, 66% male (average age 51) and 34% female (average age 46). The research included injured people with fractures of upper and lower limbs, whiplash injuries and polytraumatised patients. Measurements were taken at the beginning and at the end of rehabilitation, while the functional result was estimated using the ICF classification.

Results

The highest number of persons were injured as car drivers (32.2%), motorcycle drivers (27.3%), pedestrians (17.5%), car passengers (13.3%) and motorcycle passengers (9.7%). The most common were whiplash injuries (48.8%), upper limb fractures (31.8%), lower limb fractures (12.9%), and polytraumas (6.5%). 97% of injured persons have undergone physiotherapy immediately upon the removal of immobilization. Upon the completed rehabilitation, 73% of the injured have reached the full functional recovery and the successful return to the workplace, 18% of the injured have reached functional recovery without returning to the workplace and 9% of the injured have experienced lasting function loss with the need for a second surgical intervention.

Conclusions

Very good functional recovery was accomplished and consequently successful return to workplace. It is partly due to the type (and degree) of injurie, but predominantly to the immediate surgical treatment and early onset of rehabilitation in cooperation with a surgeon. Physiotherapy procedures were correctly selected, physiotherapy treatment continuous and complications prevented in a timely manner.
Causes of complaints from insurants, who had worked abroad, on the opinion of the Invalidity Committee

Sabina Dietner, MD - The Slovenian Medical Association, Slovenia

Issue

At Pension Fund (ZPIZ) come many complaints from insurants, who had previously worked in Slovenia, and then went abroad. They complain about the opinion of the Invalidity Committee I. degree, according to their category I. disability, and thus granted the right to financial compensation, is not recognized.

Description

On first look, there are two large groups of insured persons: those who last worked in the German-speaking countries (A, D, CH) and those from the countries of former Yugoslavia (Croatia, Bosnia, Serbia, ..). Irrespective of the country is a cause of complaints the same: in the current country is acknowledged I. category disability, but in Slovenia, despite the same diagnosis and results, not.

Results

Physician expert write down on an expert form E213. It is written a brief history and the work which insurant has recently carried out. Below is a description of the entire clinical examination and diagnoses. Finally, a brief summary of health problems with a descriptive value remaining work and the closure. There are indicated any restrictions, working conditions,... In Slovenia, the insurant from abroad are not called on examination because we rely on the abovedescribed expert advice of an expert from abroad. If in the opinion on the basis of clinical examination and diagnoses is described that insurant is able to facilitate or moderately difficult to work with, our experts , of course, does not make a category I disability, which in our country means permanent and complete loss of the ability to the provision of gainful employment.

Lessons

Unfortunately, insurants do not understand the expertise from abroad, because countries have different legal and social mechanisms, on the basis of which they despite preserved working ability, get some sort of money / rent /, but not at the same value as it was for disability category I.
"Pension insurance entitlements on the basis of reduced work capacity with residual work capacity and partial incapacity to work"

Ljiljana Sladović-Ninić - Hrvatski zavod za mirovinsko osiguranje, Croatia

Background
Until 31 December 2014, the medical appraisal of work capacity by medical experts was performed within the Croatian Pension Insurance Institute (CPII) which, at the same time, was responsible for passing of administrative act under which the insurees were granted entitlements. Since 1st January 2015, a new definition of disability has been introduced and the appraisal procedure has been transferred within the competence of the Institute for Disability Certification, Professional Rehabilitation and Employment of Persons with Disabilities (IDCPREPD).

Methods
Application of data from the CPII’s master database, information from the existing cases where insurees were granted certain entitlements based on their reduced work capacity with residual work capacity or partial incapacity and interviews with beneficiaries.

Results
By comparison of the old and new regulations, appraisal methodologies and methods of implementation of professional rehabilitation, our objective is to show the efficiency in the realization of the appraisals of reduced work capacity with residual work capacity, partial incapacity and rehabilitation.

Conclusions
The finding of data comparison showed positive developments in both the legislative regulations as well as in daily implementation. However, there is still space for further improvement. Namely, Article 42 of the previous Pension Insurance Act (applicable until 31 December 2013) prescribed that a disabled worker with the acquired right to the professional rehabilitation, who also disposes with the level of education that is required for the work such persons used to perform prior to the occurrence of disability, will be rehabilitated to work on another work position that requires the same level of education. If such possibility does not exist, the disabled worker can also be rehabilitated for the work positions requiring an immediately following lower level of education. Nevertheless, if the stated provision is considered in the light of data provided by the Croatian Bureau of Statistics, in the part that refers to the level of education, the purposefulness of such provision comes into question. Pursuant to the data collected by 2001 census of the Republic of Croatia, almost 50% women and more than 30% of men in the Republic of Croatia had only elementary education and, according to the nature of things, they perform physically very arduous works; therefore, it was presumable that great number of them will start the proceedings for the assessment of their work capacity as a result of deteriorated health condition. Since the work...
positions, according to which the assessment of work capacity of an insuree undergoing assessment was performed, imply all types of work corresponding with such insuree’s physical and psychological capacity and comply with his/her previous work positions, the possibility for a successful inclusion in the process of work of a non-skilled worker was rather limited. Article 47 of the new Pension Insurance Act (applicable since 1 January 2014) continues to prescribe that a disabled worker who was granted entitlement to the professional rehabilitation and whose level of education is compliant with the work he performed prior to the occurrence of the reduced work capacity with residual work capacity, will be rehabilitated for another work position requiring the same level of education and if such possibility does not exist, the disabled worker can be rehabilitated for work positions requiring an immediately following lower level of education. On the other hand, Article 47, paragraph 2 is currently amended in the way that it prescribes an exception to the stated rule, so a disabled worker who is entitled to the professional rehabilitation can also be rehabilitated for the work position that requires a higher level of education than the level required for the work he/she used to perform prior to the occurrence of his/her reduced work capacity with residual work capacity; however, provided that such professional rehabilitation is purposeful under consideration of such person’s expertise and age as well as possibility of finding an employment after completion of the professional rehabilitation. Also, for the purpose of protection of disabled persons, the Act on Professional Rehabilitation and Employment of Persons with Disabilities, in force and effect from 1 January 2014, prescribes rights of disabled persons to professional rehabilitation, their employment and participation in an open labour market under special conditions as well as founding, activities and administrative and expert bodies of the professional rehabilitation centre, integrative workshop and protection workshop, measures for promotion of employment and work of the disabled persons, activity and competence of the new Institute for Disability Certification, professional Rehabilitation and employment of the Persons with Disability and liability in case of the infringement of the provisions of this Act. Besides the stated, this Act incorporates also into legal system of the Republic of Croatia the Council Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and (OJ L 303, 02/12/2000).
The importance of non-invasive cardiac diagnostics at assessing working ability and disability

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Issue

The non-invasive cardiac diagnostics is crucial for establishing the ability to work with a particular disease or the ability to work after the end of the disease. When defining the consequences after certain diseases with cardiac patient is of the crucial meaning also the work of Board of Examiners of Disability Insurance Institute, which establishes the remaining working ability, the disability category and physical impairment.

Description

In certain conditions such as acute myocardial infarction, post-surgery conditions and heart interventions (stents and other) the echocardiography and exercise test can identify current functional state of the heart, and more in particular, identify the functional class of the patient. On this basis it can be objectively decided whether sick leave is still needed, or whether certain restrictions are needed, such as a temporary reduction of working time. On this basis it can be also objectively identified whether patient is in the first or second functional class of NYHA classification.

Additional information can be provided by examinations such as: one or multi-day Holter monitor, all-day blood pressure measuring. These examinations alone cannot identify the functional class, which is crucial to the working ability, but they can contribute to the final decision. It is known that at certain conditions such as myocarditis, the capacity for physical load can be objectively defined only with an exercise test. The patient, who at exercise test on a bicycle, eg, at 50W or on a treadmill at 6 MET reaches or exceeds standardized maximum heart rate requires a different decision regarding working ability when compared to a patient with normal cardiac dynamics of heart rate in the mentioned tests. The following events are also considered: possibly present heart rhythm disorders, the occurrence of blocks of different degrees, changes in ST segment in ECG and the clinical condition of the patient: chest pain, vertigo, dyspnoea, distinctive fatigue.

Results

Non-invasive diagnostic methods are widely used for assessing working ability and disability of patients with cardiovascular diseases. When a patient takes cardiovascular exercise-test on a treadmill or bicycle, an electrocardiogram (ECG) is recorded during the exercise. Beside changes in the ECG also the patient’s capacity, clinical characteristics and hemodynamic response are considered. The result helps in deciding on further diagnostic and therapeutic procedures. It allows an objective assessment of the consequences of the disease six months after its beginning and after operational or other heart intervention. Ultrasonic cardiac examination with various imaging and Doppler methods allows a noninvasive display of cardiac

Continued on next page...
structures in resting and during exercise. Without echocardiography one cannot imagine anymore the
treatment, monitoring the course of treatment and identifying the effects of heart diseases. Essential
requirements for the proper performance of both diagnostic procedures are qualified proficient operators
and appropriate equipment.

Lessons

The Board of Examiners of Disability Insurance Institute can establish only through these functional tests
whether the condition of cardiac patient requires professional opinion to classify the level of disability
of an insured person. The tests are of fundamental and irreplaceable importance when establishing
permanent working disability. Certain conditions are such that only on the basis of ultrasound examination
the disability of the first category can be confirmed; since other tests, in particular exercise test are not
objectively possible. Functional tests also show whether treatment is completed or not. If treatment is not
completed, the final decision is postponed till after completed treatment. The aim of the presentation is
to emphasize the importance of non-invasive cardiac diagnostic methods for the assessment of working
ability and relating the results of those examinations with the decision of Institute’s Board of Examiners
regarding working ability or classification of disability.
Case report: How can personality traits and coping strategies lead to disability evaluation - psychodynamic view

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Issue
Depressive and anxiety symptoms often appear in people that have weak personality traits and low coping mechanisms. They can often be the cause of sick leaves and even disability evaluation.

Description
Crisis can be defined as one's perception or experiencing of an event or situation as an intolerable difficulty that exceeds the person's current resources and coping mechanisms. Crisis usually presents itself with depressive symptoms, anxiety symptoms and somatizations. In the Crisis intervention unit (CIU) of University psychiatric hospital Ljubljana we also admit people in crisis, that are because of their mental health issues in a process of being evaluated for disability.

Results
We will report a case of 45 years old married farmer, who was treated in CIU for his 4th time. 17 years ago he was treated for alcohol addiction, from which he has recovered. For the last 5 years he is being treated with medications and psychotherapy for depressive disorder. His fourth admission was similar to the last two. He had depressive and anxiety symptoms with suicidal thoughts and strong craving for alcohol. The crisis was the result of his inability to cope with problems he had on his farm. During his hospital stay, we did personality tests that revealed weak and dependent personality traits with low resources, strategies and coping mechanisms. His yearly relapses in his mental health disable him to take care for his farm and family, so his general practitioner decided to put him on disability evaluation.

Lessons
With this case report we would like to present, from psychodynamic view, how personality traits and coping strategies can disable a human in being effective in his working and personal environment and why many general practitioners can be in distress when managing a person with similar problems.
Involuntary admission to psychiatric hospitals: Slovenian Mental Health Act compared to other European countries

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Issue

Involuntary admissions to psychiatric hospitals and involuntary treatment present a field of ethical dilemmas, related to questions of autonomy, freedom of choice and basic human rights. However, involuntary admissions and treatment of patients with mental disorders are sometimes a necessary medical procedure and in most countries regulated by legislation. In 2008, Slovenian legislation governing involuntary admissions has been substantially reformed through the Mental Health Act (MHA), which thoroughly revised involuntary admission procedures.

Description

In 2008, Slovenian legislation governing involuntary admissions has been substantially reformed through the Mental Health Act (MHA), which thoroughly revised involuntary admission procedures.

Under the Slovenian MHA, involuntary admission is justified with a person with mental illness when there is a serious likelihood of the person concerned causing life-threatening or material harm to himself or to other persons and his/her judgment is so impaired that reception, detention and treatment in an acute ward of a psychiatric hospital would benefit or alleviate the condition of that person.

Results

According to Slovenian MHA, in cases of involuntary hospitalization a hearing of a committee, consisting of a judge, a lawyer and a medical (psychiatric) assessor is required and the latter plays an important role in the procedure of involuntary hospitalization. The assessor examines the patient and re-assesses the objectives (justification) for involuntary treatment. Our aim is to present Slovenian legislation and procedures regarding involuntary admissions in comparison to some of the other European countries. Legislation and clinical practice as well as involuntary admission rates vary widely across European countries.

Lessons

The differences across countries are thought to be related mostly to location, organization of health-care professionals, therapeutic capacity and the influence of society.
The role of a specialist of occupational medicine in the process of returning to work

Ratkajec Tihomir, MD PhD - Slovenia

Introduction: In Slovenia a specialist in occupational medicine (SOM) is insufficiently involved in the process of workers’ returning to work (RtW) after longer sickness. More often a SOM gets involved in the process of RtW at the request of the company, after Pension and Invalidity Insurance Institute assessment of disability. Next we will describe two examples of the process of RtW after the assessment from the Pension and Invalidity Insurance Institute with different results.

Description

First example: a 34-year-old female worker, employed in the electrical industry, fell ill in 2010 with the autoimmune inflammation of the thyroid with hyperthyroidism, which caused the egsoftalmus with diplopia and the pain behind the eyes. She was on sick leave until the year 2012. The company has sent the worker to a SOM for an examination at the proposal of the doctor from the Health Insurance Institute, who assesses the workers’ ability to work after 30 days of absence from work. SOM assessed that the health status of the worker is improving and carried out the analyses of five work places in the company and then proposed a shorter working shift at the workplace where the vision on the eyes was smallest (vision less than 0.5, and without permanent bulb eyes motion). Once the disease has stabilized in 2014, the Pension and Invalidity Insurance Institute, taking into account the opinion of the SOM and the endocrinologist, gave a decision that the worker is able to work in the shorter working shift.

Results

Second example: a 33-year-old female worker has carried out for more than three years a repetitive work at the electrical industry with a back pain, after which the disease got worse and she had to be operated (fenestrectomy, partial laminectomy with the removal of the hernia dischi). The period of her sick live until the assessment of her working ability at the Pension and Invalidity Insurance Institute was 8 months which decided that she should not carry more than 100 kg during her working day. When the SOM analysed her working place, he noted that the decision of the Pension and Invalidity Insurance Institute is impracticable. Why? The norm at the working place is to move 1,650 pieces of pipe (one weights 30.22 grams), which is 49.86 kg, and when this movement is repeated twice, that sums to 99.72 kg. I must emphasize that the work is done with the upper limbs where the lumbar spine is not overloaded. Beside this working operation, the worker has to do an other tasks that include small objects and she moves more than 100kg of load during her working day. Because of this, the company has announced her the cancelation of her working contract.
Lessons

Conclusion. A SOM could have a greater role in the process of returning to work, if the cooperation with the experts from the Health Insurance Institute and the Pension and Invalidity Insurance Institute and also with the general physician was coordinated and regulated by law.
Sick leave and insurance benefits in Romania

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Issue
In the early 1990’s, an overview of pension reform was presented, but the major breakthrough came with the adoption of Law 19/2000, concerning the public pension system in Romania. Currently, the Romanian Government adopted the Emergency Ordinance no. 158 of 2005, applied in 2006, modified in 2010 and 2014, which provides the most important benefits regarding sick leave. The paper aims to highlight an overview of the types of benefits awarded under the current social insurance legislation.

Description
Sick leave allowances to which they are entitled policyholders are: for common and special illnesses, work accidents, illness prevention and work capacity rehabilitation, maternity leave and sick child care. The social insurance physicians are in charge to prolong the duration of the sick leave, for each type of affection, from 91 days to 183 days, within one year, counted from the first day of illness.

Results
The new legislation gives support to the implementation of the reform of the social insurance system in Romania. The provisions of the current legislation in the area of the social insurance are presented from an objective perspective, analyzing the weaknesses and the strong features as well. In the event that a policyholder is given in the same month two or more sick leave for different conditions without interruption between them, the allowance for temporary work capacity is calculated and paid separately. For individuals who refuse temporary disability check presence, the payment of allowance cease on the date on which found this under the conditions.

Lessons
The submission of this paper is an opportunity to discuss and exchange information regarding our social insurance system through sick leave and other insurance benefits and to open a channel towards cooperation and harmonization of perspectives. The study provides not only factual information, but also provides an analysis of specific aspects.
Standardized assessment of professional and personal competencies of people with disabilities

Stojan Zagorc – SZ, Slovenia; 2. Karin Kronika – KK

Issue

Working integration of low educated people with disabilities (PWDs) is a very complex process. People with disabilities are faced with a problem that they are able to execute different jobs but hold no proofs or certificates of gained professional knowledge. They are not in position to present their professional and personal competencies; hence they find themselves in unprivileged position on the labour market. On the other hand employers are sceptical about their (PWDs) knowledge and competencies which leads to lower level of working integration of PWDs.

Description

Solution to this problem is a standardized certification of personality and work competencies (AQui). AQui certification system enables individuals to demonstrate and certify PWDs hard and soft skills in a relevant occupation. Assessment of personal and work competencies in the frame of AQui Standard allows interested employers to take a detailed insight into the personal and work competences of PWDs, assessed with a set of psychological tests in accordance with the law of the country in which measurements are made, the theoretical and practical examination according to internationally recognized methodology for work assessment (REFA), taking into account the quality of work, adherence to occupational safety and protective equipment, as well as work efficiency and basic orientation for future work. AQui Standard methodology also provides interested employers to see a video of the worker during the performance of a practical assessment. Certification by AQui Standard provides a modular upgrade of certificate with the new work competencies and knowledge of foreign languages on both general and professional level. AQui Standard provides a high degree of reliability of the results also taking into account the legal regulations on the protection of personal data. Development of AQui standard is co-financed by the Austrian Development Agency (ADA).

Results

Project in progress. First results are promising.

Lessons

Employers show great satisfaction.
Complex regional painsyndrome a challenging diagnosis for the insurance physician

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Background

Complex regional pain syndrome is not always an easy diagnosis as the golden standard is a clinical consensus criterion: the Budapest criteria. Sometimes other factors may mimic the syndrome. This is especially true for pseudo-CRPS due to psychogenic disorders and malingering. A case report is presented as an illustration.

Methods

A 34-year old women, who was diagnosed as having CRPS type 1 of the left hand after a minor work related wrist injury, which kept her already for 22 months on sick leave, consulted our PMR-service for advice concerning a not acceptable settlement proposition of the insurance company: consolidation of the injury 6 months post injury with a permanent incapacity for work of 30%. After studying the complete medical file of the involved and considering her concomitant clinical examination, which showed some inconsistencies, an unfavorable psychosocial context and excessive pain behavior with nearly no objective clinical abnormalities, the diagnosis of a true CRPS becomes very questionable. Her general physician was asked to gently propose the patient considering psychiatric advice. Some months later the patient resumed spontaneously her former job, with “slight” dysfunction of the left hand. Unfortunately after 2 months there was another sick leave period for already more than 4 months because of a minor pelvic sprain due to a car accident. In the mean time the initial proposal of the insurance company was still refused and her lawyer started a litigation procedure

Results

In this case a diagnosis of CRPS was made on clinical grounds, without proof that the Budapest criteria were fully checked. Although a three-phase bone scan, knowing that this examination is not 100% accurate in diagnosing CRPS, did show a decreased uptake in phase 3 from the beginning suggesting at least disuse as a differential diagnosis, once the primary treating physician diagnosed CRPS, all other involved medical doctors and paramedicals accepted the diagnosis too: anesthesiologist, rehabilitation physician, primary care physician, orthopedic surgeon, insurance physician, physical therapist, occupational therapist. Instead some other elements in the treating course might have suggested reconsidering the diagnosis, it was not. Only after psychiatric advice factious disorder was suggested. The medico-legal aspects of the case tackle a lot of issues: the rationale of the proposal of the insurance company, the strategy of the patient’s lawyer and the interaction of all involved parties. This will be highlighted in the case presentation.

Continued on next page...
Conclusions

Complex regional pain syndrome is a clinical diagnosis which should be made carefully and considering all differential diagnosis especially when medico-legal issues are involved. Being aware of the complexity of a chronic pain patient, possible yellow and blue flags, a regularly and accurate clinical follow up, and a thorough multidisciplinary approach when appropriate are essential to reduce the risk of these potential medico-legal implications. When it comes to litigation the outcome is unpredictable.
The effectiveness of the Participatory Approach at the Workplace on health, sickness absence and return-to-work

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Background

In the Netherlands, we developed a multidisciplinary guideline for the Participatory Approach (PA) at the Workplace, in collaboration with insurance physicians, occupational health physicians, labor experts, occupational health nurses, occupational hygienists, and occupational therapists. The PA is a systematic approach with pre-defined steps to find consensus between worker and other stakeholders involved, such as the employer, on the main work related problems and solutions for the health issues under the guidance of one of the professionals as stated above. This results in an action plan in which is specifically defined what needs to be done, by whom and when. For the development of the guideline we systematically searched the literature to investigate the effectiveness of the PA on health problems, sickness absence and return-to-work.

Methods

We searched PsychINFO, Medline, CINAHL, Cochrane en Embase for English, peer-reviewed articles published before February 24th 2015, and included RCT’s investigating the effectiveness of PA in employees (or unemployed adults) suffering from health problems or who were on sick leave.

Results

Out of 1934 titles and abstracts we included 13 different studies. None of the five RCTs investigating the effect of the PA on musculoskeletal pain found an effect, and one of two studies investigating the effect on mental symptoms found a positive effect. All three studies investigating the effect of PA on sick leave due to musculoskeletal pain found a positive effect. Five out of 6 studies found a positive effect of the PA on the time to return to work in workers with musculoskeletal pain. No effect was found on the return-to-work for workers with mental or depressive symptoms or after cancer treatment.

Conclusions

Whereas the effectiveness of the PA was not convincing for reducing musculoskeletal or mental problems, the PA appeared effective to reduce sick leave and fasten return-to-work, especially in workers with musculoskeletal pain.
Evidence-based prognosis by physicians working in the field of disability evaluation


Background

Assessing prognosis of a clients’ health state and work ability is an essential task of physicians working in the field of disability evaluation. This research project aims to develop and evaluate the efficacy and feasibility of an evidencebased decision tool. The approach and methodology of this research project will be described and some preliminary results of the first part, a qualitative study will be presented.

Methods

In developing such a tool a stepwise approach, derived from intervention mapping and guideline development methods, is used. By using results obtained from a qualitative study under insurance physicians on elucidating their prognostic considerations and their needs we define the scope of the decision tool. Next, is a literature search for prognostic data of the most prevalent disorders that lead to a disability pension. With the results from both studies and additional input by experts, outcome parameters for the tool will be formulated and a frame work for the format determined. Subsequently, in an experimental setting, the efficacy of the developed tool will be evaluated in an RCT using case vignettes. Moreover, the feasibility of the tool will be determined in a process evaluation study among a group of insurance physicians, using it in their daily practice.

Results

The qualitative study has already started. Some preliminary results are: In many cases, physicians use the course of the disease to judge the prognosis. Physicians consider prognosis more positive when the client has a positive motivation. From the interviews, a variance between the physicians in their assessment of the correct therapy and the likely benefits of additional treatment can be derived.

Conclusions

This project aims to develop a useful supporting decision tool in order to enable insurance physicians to establish a substantiated judgment of prognosis which also will be favorable to our clients.
Return to work after spinal cord injury: a case report of 27 year old patient

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Issue

Spinal cord injury (SCI) is one of the most serious injuries regarding its devastating effect on all aspects of patient’s life. Many studies have confirmed that return to work (RTW) is associated with better quality of life, participation, and physical as well as psychological well being. However, many people after SCI do not return to work. According to the comprehensive review of literature the average rate of employment for people with SCI is only 35% with a range from 21 to 67%. The most common factors that influence RTW are: ability to work, motivation, education, age, sex, socioeconomic status, the neurological level of SCI, ability to use wheelchair, transportation, architectural barriers etc.

Description

The purpose of this study was to present a successful supported reemployment of a 27 years old person after SCI who sustained a compression fracture of L1 vertebra presented with complete paraplegia and incontinence. After completed rehabilitation program the patient was highly motivated for RTW. The work ability assessment was done 16 months after the injury. He was assessed as being able to work part time (4 hours daily) but in a different work position.

Results

The employer had to rearrange the working process in order to ensure a suitable working position that included work in a seating position using a computer. The employer also provided some accommodation as for example: arranging a parking lot, building an access ramp and toilets for handicapped people. The new working conditions had to be approved as suitable by the occupational medicine specialist. A special contract was signed between The Pension and Invalidity Institute of Slovenia and the employer which helped the employer financially to provide the necessary facilities. The man started to work four years after SCI in 2011.

Lessons

Nowadays he is still employed and he performs his work successfully.
**Work ability in a crisis situation**

*Novak Šarotar Brigita, MD - University psychiatric clinic Ljubljana, Slovenia*

**Issue**

Work ability in a crisis situation will be discussed.

**Description**

Crisis is a perception of an event or situation as an intolerable difficulty that exceeds the person’s resources and coping mechanisms. Unless the person obtains relief, the crisis has the potential to cause severe affective, cognitive, and behavioral malfunctioning. Because of that, the symptoms that overlie precipitating crisis events are usually diverse, from most debilitating kind to mild symptoms that don’t affect persons everyday functioning. In most cases, symptoms last from few days to few weeks. Work ability in crisis situation is therefore assessed for short-term, sick leave should be prescribed only for the period of acute symptom manifestation and not for the prolonged time as crisis is usually selflimited. Various clinical manifestation of crisis will be discussed as well as different factors that affect the course of the crisis, among them is employment status.

**Results**

Clinical manifestation of crisis using ICD-10 will be discussed with different interventions, including pharmacotherapy with the influence on work ability.
Promoting sustainable return to work - Towards a job matching tool for persons with spinal cord injury

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Background

Sustainable return to work (RTW) requires a good match between a person’s work-related capabilities and characteristics and the demands and characteristics of the person’s job. Therefore, job matching (JM) plays a key role in vocational rehabilitation (VR) programs. However, currently available JM tools do not allow for comprehensive documentation of person-job match. They are neither addressing demands and characteristics of specific occupations, nor work-related needs and limitations of persons with a particular health condition, nor environmental factors affecting a person’s RTW. The present project aims at developing a comprehensive occupation- and health condition-specific JM tool for VR of persons with spinal cord injury (SCI).

Methods

A qualitative research design is applied, involving a multipronged data collection strategy:

1. Identification of occupations performed by persons with SCI using data from the Swiss SCI cohort study (SwiSCI);
2. Determination of the occupations’ characteristics and demands using the Occupational Information Network (O*NET) and a Swiss job classification;
3. Determination of work-related health condition-specific needs, limitations and environmental factors affecting the RTW of persons with SCI based on focus-group interviews;
4. Development of a multidimensional job matching profile;
5. Examination of the tool’s content validity by interviews with VR experts and affected persons.

Results

The development of the tool is ongoing. Person-job match will be visualized by a profile consisting of three dimensions:

1. fit between stable characteristics (e.g. work-related abilities or interests) and corresponding job attributes;
2. fit between trainable characteristics (e.g. work-related skills) and corresponding job demands;

Continued on next page...
3. fit between work-related needs of a person with SCI and the environmental factors of the workplace.

Conclusions

The tool allows for transparent documentation of person-job match and could thus facilitate interdisciplinary teamwork in VR and improve the planning, carrying out and evaluation of interventions. Ultimately, the tool will contribute to a sustainable RTW of persons with SCI.
Effectiveness of the participatory supportive return to work program for workers without a permanent employment contract, sick-1


Background

Sick-listed workers without a permanent employment contract often face more barriers for return to work (RTW), compared to sick-listed employees. In The Netherlands, the Dutch Social Security Agency (SSA) is responsible for occupational health care (OHC) of this more vulnerable group of workers. Mental disorders are a frequent cause of sickness absence within this group. The participatory supportive RTW program was developed in order to improve the RTW of workers without a permanent employment contract, sick-listed due to a common mental disorder. The program combines a participatory approach, direct placement in a competitive job and integrated care. The aim of this study is to evaluate the effectiveness of the participatory supportive RTW program, compared to usual OHC by the Dutch SSA.

Methods

The study design consists of a randomized controlled trial with to arms, an intervention group and a control group, and a follow-up of 12 months. The primary outcome measure is duration until sustainable RTW in competitive employment. Kaplan Meier survival curves will be used to describe this duration in both groups. The Cox proportional hazard model will be used to estimate differences in RTW between the intervention and control group, expressed in a hazard ratio (HR) for sustainable RTW.

Results

Results of the effectiveness evaluation will become available in November 2015.

Conclusions

Results of this study will reveal whether the participatory supportive RTW program is effective in improving RTW of a vulnerable group of sick-listed workers.
Study Protocol for impact evaluation of Supported Employment for young people with functional impairments


Background
Labor market participation in Sweden for young people with disabilities is low. Supported employment is a vocational rehabilitation strategy where the individual is assisted in obtaining and maintaining employment by a job coach or person-centered support team. Supported employment (SE) has shown promising results for individuals with schizophrenia in an Anglo-saxon labor market. However, there is a lack of evidence on whether this effectiveness generalizes to individuals with a broader range of functional impairments, or to the setting of the Scandinavian type labor market where demands on productivity are high. We are conducting a multi-center randomized controlled trial to investigate the effectiveness of SE for young people with disabilities.

Methods
In total, 1000 individuals are estimated to be included in the study. Individuals are randomly assigned to either the SE group or to one of two types of control groups. All interventions are implemented within the joint vocational rehabilitation program of the employment office and the social insurance agency. Individuals in the SE-group were allocated an SE-coach from the employment office, whereas individuals in the control groups participated in the local rehabilitation activities with or without a case manager respectively. The main outcome measures are employment in the years following the intervention and employment and labor earnings in the evaluation of long-run effects. Additional outcome measures are disability insurance uptake and intervention satisfaction. The content of the rehabilitation strategies is evaluated using time-use surveys from all participating staff.

Results
So far 529 individuals are randomized in the study. The results of the study will be reported at different stages, with start 2017.

Conclusions
The study gives a unique opportunity to evaluate SE such that the results can be generalized to individuals with disabilities in a Scandinavian type labor market. The impact can be studied in both the short term and the long term.
Study of chronic diseases from cancer and chronic disabilities to work in Italy detected by the INPS database

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Background
Disability from neoplastic disease is a major problem in the Western population and becomes a social disease for public policy. The long-term care requires great resources. European experts consider essential to know the geographical distribution and modes of evaluation of cancer disability in different States. This medical research aims to study the incidence and prevalence of cancer among INPS insured workers last decade. We also consider which of these cancers more frequently cause disability and then give the right to enjoy economic benefits from public

Methods
The statistical method is increasingly crucial to get results based on evidence and reach appropriate medical evaluations, so we will use INPS databases to consider the incidence and prevalence of the major cancer diseases. We will also take into consideration the age and gender of workers.

Results
The most frequent cancers in Italy are localized to the breast and colon. Between the cancers lung and pancreas more frequently cause disability.

Conclusions
In accordance with current EU 2010-20 strategies to know the phenomena in this field, our data reveal that in Italy there is an increase in chronic diseases as cancer and chronic disabilities to work connected to them.
Return to work after long-term absence

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Issue

Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or condition. Sick leave is an indirect indication of the degree of adaptation of workers working and living conditions and an important indicator of the negative health of active population.

In terms of HII it is reasonable to create the conditions for greater control of expenditure in a compulsory health insurance. In 2014 there were refunds in the field of absenteeism about 230 million EUR, this does not include the costs of the health care system and the burden on employers due to refunds and decreased productivity.

Description

Promotion of faster and more sustainable return to work depends not only on the improvement of health, but also on other factors such as socio-demographic and psychological characteristics of the individual, working environment, the efficiency of the healthcare system and the (legal) organization of health insurance. The transition from long-term absence is often a complex process because it involves various stakeholders (employees, employers, health care providers and HII), which may have different views on how to achieve a successful return to work. There are several models (biomedical, psychosocial, forensic, economic, biopsychosocial, environmental), each with its own perspective and with more or less complexity provide ways of meeting this challenge.

Results

One of the ways proposed by the Institute for Work and Health in Toronto, Canada, recommended early intervention, including the appointment of a coordinator of returning to work. The latter is responsible for: (1) identifying barriers to return to work, (2) developing solutions to overcome these barriers (3) management plan of return to work (4), getting support from health care providers and employers.

Lessons

Broad view of return to work process and interaction with many actors can contribute to better understanding of return to work.
A Critical View of FRM Specialist on Permanent Work Capability Assessment

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Issue

The working capability assessment is a complex professional process. Diseases may have permanent negative effects on the worker’s functional capacities. With treatment and rehabilitation we try to restore their predisease functional status, but usually this cannot be done. We use numerous methods to improve different impairments and handicaps. The general state of health defines the rehabilitation potentials and goals. When these goals and functional levels are met, we may conclude the status as final and begin with the process of assessing the working capability.

Description

In reality this process is challenged with the following complex questions:

**REHABILITATION SUITABILITY?**

The rehabilitation has to:

- timely begin
- provide continued treatment
- include all experts who deal with all areas of impairments and handicaps
- use of proven effective methods.

**REHABILITATION COMPLETION?**

Achieving the goals and peaks of functional capacities needs to be well defined with the usage of assessment and measurement instruments. It is important to perform an analysis of the general state of health and especially a precise assessment of the degeneration of functional capacity levels which are needed to perform certain working tasks.

Results

**THE ROLE OF FRM SPECIALIST IN ASSESSING THE WORKING CAPACITY?**

- examination of patient’s state of health and rehabilitation potentials
- precise determination of impairment and handicap
- rehabilitation programme examination: treatment methods, process suitability and reasonable

Continued on next page...
duration
– expert approval of the rehabilitation completion where the functional capacity improvement is non-existent
– precise determination of functional deficits which affect the capability and efficiency to perform a specific working task

Lessons

In this context, the challenge which an FRM specialist faces is an autonomous and critical judgement of the suitability of achieved goals in rehabilitation. From an expert point of view, the assessment of working capabilities may not begin before the completion of a suitable rehabilitation programme.
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