Thursday 7 April 2005

Conference Room 1

09:00-09:30
L'informatisation des services de support de l'hôpital: solutions, bénéfices et conditions de succès? 1. Introduction
Présenté par CRP-Santé et Association Européenne des Directeurs d'Hôpitaux

09:00-09:10
Accueil et exposé officiel d'ouverture
Willy Heuschen, Secrétaire Général, Association Européenne des Directeurs d'Hôpitaux, Bruxelles

09:10-09:30
Présentation des objectifs, de la méthodologie et des intervenants de la journée
Marie-Lise Lair, Centre de Recherche Public Santé, Luxembourg

Suite de ce séminaire de 09:30-12:00 dans la salle de conférence 4 (Présentation de 'business cases') et de 14:00-17:00 dans la salle de conférence 1 (Session Pleninaire + Débat).

10:00-13:00
National Experiences in Telemedicine and eHealth
Hosted by International Society for Telemedicine & eHealth
Chair: Frank Lievens, ISfT Board Member & Treasurer, Belgium

10:00-10:20
Title: The Challenges of Implementing the National Programme for IT in England
Authors: Richardson R.J.
Organizations: Vice President, International Society for Telemedicine Chairman, UK eHealth Association
Consultant Paediatrician, Great Ormond Street Hospital for Children, London, UK
Visiting Professor in eHealth, Imperial College, London, UK
Group Clinical Director, DataSystems Group of companies

Short Description: The National Programme for IT (NPfIT) in England is being billed as being the largest single civilian IT Project on the planet. The cost of the procurement alone was £6.2 billion (Euros 10 billion) and it is estimated that the full cost of implementation may cost 10 times that figure over the next 10 years. In a project of such complexity and scope, the technology acquisition is often the easiest part. The implementation phase of the NPfIT is proving to be challenging, not least because the large systems integrators who are contracted to implement the programme - have different perceptions as to the best way to manage the process in their respect geographical regions. There are a number of risks associated with this programme, which where possible - have been mitigated. Critical to success has been the acceptance of the process change in working practices by the clinical communities on the ground and this has proved much more difficult than was anticipated hitherto. The current state of the implementation phase of this national eHealth programme will be discussed and the challenges and risks will be addressed and discussed.

Key words: National eHealth Programme, Civilian IT Project, Risk

10:20-10:40
Title: Remote analysis of digitized x-ray image for bone injuries and other pathology
Authors: Glinkowski1, 2, 3 W., Kornacki M.
Organizations: 1Chair and Department of Orthopedics and Traumatology of Locomotors System, Medical University, Warsaw, Poland
2Center of Excellence „TeleOrto”, Poland
3Department of Anatomy, Center of Biostructure Research, Medical University, Warsaw, Poland
4SAS Institute European Headquarters, Heidelberg, Germany

Short Description: The purpose of the study was to evaluate the usefulness of new method (RODIA System) to monitor mineralization of the fracture gap on digitalized x-ray, osteolysis or loosening around orthopaedic implants or other bone pathology. Collection of radiographs of various orthopaedic pathologies was digitized for further analysis. Image Evaluation Module and Fracture Healing Monitor Module of Relative Optical Density Image Analysis (RODIA) System [1] were utilized for images evaluation. Search for subtle fracture line, assessment of the bone osteolysis around orthopaedic implants, and progress of bone tumour retrospective evaluation were performed with RODIA System. Developed Relative Optical Density Image Analysis System (RODIA System) allows remote analyzing and measure digitized X-ray image to reliably enhance of image evaluation.

Key words: Telemedicine, Remote X-ray Image Analysis

10:40-11:00
Title: Country Building Efforts for the Developing World Using Telemedicine
Author: Guirola M.
Organization: Fonomed, El Salvador
Short Description: The aim of the paper is to present current healthcare information about El Salvador as well as to illustrate our contemporary telemedicine applications and results. A 12 minutes video showing our “1a Gran Jornada Fonomedica” will also be included in the presentation. This event (1a Gran Jornada Fonomedica) took place Feb. 12th, 2005 where during 5 hours doctors responded to over 1,000 POTS based at distant consultation units.

Key words: Telemedicine Applications, Business Model, Tele-consultation

11:00-11:20
Title: Anatomoclinical Discussions in Teleeducation

Author: Bohm G.M.
Organization: Department of Pathology, Faculty of Medicine, University of Sao Paulo, Brazil
Short Description: In Brazil there are 128 Medical Schools and each year more than 10,000 physicians are added to a pool of more than 260,000 in activity. Medical education is a serious problem, since more than 50% of the Medical Faculties have no teaching hospital. Among many deficiencies, more than 90% of the students do not attend autopsies and therefore they graduate without having seen one single case of an anatomoclinical discussion based on autopsies. In order to fill this serious knowledge gap, the Department of Pathology of São Paulo’s University Medical Faculty started to teleconference anatomoclinical discussions based on autopsy cases online and in real time in 2002. This Department has a huge post-mortem service with an average of 30 cases per day and, thus, the discussions may be held on any day. Generally 1 discussion per week is offered and 3 Medical Schools participate of the event at the same time. All cases are filmed and the most interesting ones are analyzed and edited on our site (www.saudeparavoce.com.br/telepatologia) where the students may assess them with a password.

Key words: Tele-education, Tele-pathology

11:20-11:40
Title: eHealth and Telemedicine Projects in South Africa

Author: Molefi L.M.
Organization: Medical Research Council, Telemedicine Lead Programme, Pretoria, South Africa
Short Description: Much South African telemedicine projects are in its public health care service; there the effort is chiefly directed towards the primary health applications of telemedicine. It is principally intended to improve the health care of those in economically disadvantaged rural regions. This emphasis attempts to redress the previous administration’s health care policy, which greatly neglected those regions.
11:40-12:00
Title: GRID - New Perspectives of E-Health Applications for Georgia
Author: Kldiashvili E.T.
Organization: Georgian Telemedicine Union (Association), Georgia
Short Description: Grid is one of the currently and most actively developing concepts in the IT community. The present project aims implementation of e-Health applications through Grid technology. The main objectives are: 1) Distribution of computational resources (i.e. over a large community of medical users); 2) Ensuring of image processing algorithm’s accessibility; 3) Combination of image data with other medical data, facilitating data access; 4) Facilitation of tele-medicine development in Georgia; 5) Bringing of affordable solutions to actual problems that are intractable by commonly available resources in country. Main goal of the project is to create a unified, resilient and transparent infrastructure, available on demand in order to solve complex problems in health care.

Key words: Grid, Simulation, Tele-medicine, e-Health

12:00-12:20
Title: Current Finnish eHealth Experiences
Author: Reponen J.
Organization: University of Oulu, FinnTelemedicum, Finland
Short Description: The presentation will shortly describe the development of telemedicine and eHealth in Finland and the current national project for electronic patient record. It will make a reference to the use of wireless technology in Finnish health care. Finally the presentation will give a status of the Finnish Society of Telemedicine (FST), having the longest tradition in this field in Europe.

Key words: Telemedicine, eHealth, Wireless Technology, Organisations

12:20-12:40
Title: Our Best Practice Models for Telemedicine and eHealth
Author: Vladzymyrskyy A., Dorokhova E., Klymovytskyy V.
Organization: Donetsk Research and Development Institute of Traumatology and Orthopaedics, Department of Informatics and Telemedicine, Donetsk State Medical University, Ukraine
Short Description: Today's digital communication technologies allow organising unlimited exchange of any kind of information. So, it's possible to create so-called “Best Practice Models” (BPM) for telemedicine and eHealth. Powerful information providers can organise BPMs’ data bases from different parts of the world, different decisions, solutions, advises etc. The importance of creation of such BPMs’ data bases was marked on General Assembly of International Society for Telemedicine (ISfT) in 2004. Nowadays Department of Informatics and Telemedicine (Donetsk R&D Institute of Traumatology and Orthopaedics,
Donetsk, Ukraine) has own unique experience and decisions for telemedicine. It's provided scientific, practical, organizational, technical, medical, economic, methodical decisions and information for another telemedicine and e-health organisation. We have developed four BPM and created special part on Internet site „Telemedicine in Ukraine“. Special part „Good Practice Models“ was created on IsfTeH official web-site.

**Key words:**  
Telemedicine, Good Practice Models, Teleconsultations

**12:40-13:00**  
**Title:**  
Croatian Telehealth Strategy: Objectives, Technology, Customers, Benefits  

**Authors:**  
Klapan\(^1\) I., Pavelin\(^2\) A.

**Organizations:**  
\(^1\) Ministry of Health Republic of Croatia, Croatian Telemed Society, Croatia  
\(^2\) T-Com, Service Department, Business Services and Solutions, Zagreb, Croatia

**Short Description:**  
Startegic goals of Croatian Telehealth strategy are: a) to promotes regional cooperation, b) assists in pre-planning for present/future TelMED (telemedicine) coalitions; service to remote locations, c) contribute to NATO, and operate with NATO forces, d) become respectable partner with other partners, e) " to improve dialogue with local partners in issues and scenarios related to military emergency medicine, developing of modern teleheath of the 21st century, emergency planning. ”

**Key words:**  
National Strategy, Telepresence, Supervision

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**14:00 - 17:00**  
**L’informatisation des services de support de l’hôpital: solutions, bénéfices et conditions de succès? 3. Session Plenaria + Débat**  
Présenté par CRP-Santé et Association Européenne des Directeurs d’Hôpitaux

**14:00-14:45**  
**Le point de vue du management hospitalier: comment améliorer la performance et les objectifs de l’hôpital par l’informatisation des services de support?**  
Dr. Patrick Gérard Directeur Général, Clinique St. Jean, Bruxelles, Belgique  
Dr. Geneviève Hanique, Directrice de l’Informatique et de l’Information, Clinique St. Jean, Bruxelles, Belgique  
Yvonne Kremmer, Cellule d’Information Médicale, Centre Hospitalier de Luxembourg, Luxembourg

**14:45-15:45**  
**La stratégie des directions informatiques: comment établir les priorités, arrêter les choix et assurer une mise en oeuvre optimale?**  
Dr. Benoît Debande, Directeur Information et Systèmes, Cliniques Universitaires St. Luc, Bruxelles, Belgique  
Serge Frieden, Responsable Informatique, Entente des Hôpitaux Luxembourgeois, Luxembourg
15:45-16:30
Le point de vue des sociétés: quelles sont les conditions de succès?
Panel animé par François Daue, Horizon Systems, Luxembourg

16:30-17:00
Séance questions - réponses
Conclusions

Conference Room 2

10:30-12:30
eHealth and Education
Chair: Deborah Duffy, Waterford Institute of Technology, Ireland

10:30-10:50
Title: "Teletrauma" - Internet System for Distant Education
Authors: Klymovytskyy V. G., Vladzymyrskyy A. V.
Organization: Donetsk Research and Development Institute of Traumatology and Orthopaedics, Department of Informatics and Telemedicine, Ukraine
Short Description: A system for distant education (DE) in traumatology and orthopaedyst "TeleTrauma" was developed and is in use in Donetsk Research and Development Institute of Traumatology and Orthopedics, Department of Informatics and Telemedicine, Ukraine. It consists from two sections: enenvironment and educational blocks. The enenvironmental is intended for management and association of educational blocks, registration and navigation of users. Each educational block represents the structured set of information by the different themes.
Key words: Distant Education, Internet, Trauma, Telemedicine

10:50-11:10
Title: Experience of Modern Technology for Distance Interactive Tele-education
Authors: Burnett H., Bockeria L., Stolyar V., Chueva E., Selkov A.
Organizations: Great Ormond Street Hospital for Children NHS Trust, UK; Bakoulev Scientific Center for Cardiovascular Surgery of RAMS, Russia, Moscow Institute of International Business, Russia
Short Description: We have developed real technology for distance tele-education, which we are using for ordinary lectures, training courses, real-time transmissions of operations and investigations, etc. It helps us to provide effective remote video-support for doctors from regional hospitals in Russia or UK.
Key words: Distance Tele-education, Videoconference, Cardiology, Cooperation
11:10-11:30
Title: Advantages and Problems of e-Learning for Teaching Anatomy
Authors: Ciszek¹ B., Glinkowski¹,²,³ W., Bakon¹ L.
Organizations: 
¹Department of Anatomy, Center of Biostructure Research, Medical University, Warsaw, Poland
²Chair and Department of Orthopedics and Traumatology of Locomotor System, Medical University, Warsaw, Poland
³Center of Excelence „TeleOrto”, Poland
Short Description: E-education becomes a novel trend in studying medicine. Teaching anatomy recently demands progressive improvement of tools including distant learning system to create 24 hour a day open web site.
Key words: E-learning, Anatomy, Telemedicine

11:30-11:50
Title: E-Learning in Medicine – Myth or Reality
Authors: Rudowski¹,² P., Rudowski² R.
Organizations: 
¹Medical University of Warsaw, The Department of Medical Informatics and Telemedicine, Poland
²Institute of Physiology and Pathology of Hearing, Poland
Short Description: The aim of the work is to analyse e-learning methods before implementing them in graduate and post graduate medical education in Poland. It presents main problems concerning usage of e-learning in medical education and tries to find solutions to those topics depending on the target group of learners (students or doctors).
Key words: Distance Education, Medical Education, E-learning, Blended Learning Model

11:50-12:10
Title: Implementation of a Hybrid Assistive System for the Learning Disabled within the Irish Third Level Education System
Authors: Duffy¹ D., Lyng¹ M., Stapleton¹ L., Jordanova² M.
Organizations: 
¹Waterford Institute of Technology, Ireland
²Bulgarian Academy of Sciences, Bulgaria
Short Description: This paper outlines the findings of a study carried out within the Irish 3rd level education system that addresses issues in relation to support service provision for students with learning disabilities, in terms of the assessment, training and support strategies for Assistive Technologies.
Key words: Assistive Technology, Learning Disabilities, Training, and Support

12:10-12:30
Title: 350 Needs in Low Resource Settings
Authors: Zolfo M., Lynen L., Huyst V., Arnould L.
Telemedicine is a way to deliver health care in remote areas. Meeting the goal of accessing health information in developing countries and facing the necessity to scale up the use of antiretrovirals (ARVs) in low resource settings, the Institute of Tropical Medicine, Antwerp (ITMA) set up a computer aided training programme for health providers, working in disadvantaged areas. Expert advice from HIV/AIDS specialists about ARVs and management of Opportunistic Infections (OIs) has been offered to colleagues working in different resource limited settings.

**Key words:** Telemedicine, HIV Infection, Low Resource Settings
13:40-14:00
Title: Telemedicine in Georgia
Authors: Kldiashvili E. T., Shakulashvili N. G. (Georgia)
Organization: Georgian Telemedicine Union, Georgia
Short Description: The presentation describes Georgian non profit organization Georgian Telemedicine Union and its activities. By this presentation the potentials of telemedicine services in developing country will be described.
Key words: Telemedicine, Teleeducation, Static, On-line Medical Consultation

14:00-14:20
Title: DomoCare - Home Monitoring and Home Care Service: Telefonica Project
Authors: Altadill A., Acuña C., Menduiña E.
Organization: ¹Project Coordinator, ²Home Services Consultant, ³Residential Systems Manager, Telefónica I+D, Spain
Short Description: The aim of this presentation is to describe an on-going Spanish project for home-based assistance services. The latter are expected to be a key factor in the evolution of assistance systems. The use of new information technologies can allow end users to obtain care and social services at any location, erasing many obstacles from current assistance services and creating a universal service everybody can access. Home-based Assistance Services need to bridge the differences between the various layers in order to introduce assistance in the patient’s house.
Key words: Home Based Remote Assistance Services, Medical Devices, Monitoring, Alarm Handling

15:30-17:10
Decision Support Systems in eHealth
Chair: G. Galijasevic, Croatian National Institute of Public Health, Croatia

15:30-15:50
Title: Model of Good Practice Software Agents for Risk Reduction and Clinical Governance
Authors: Spy-Anderson P-J., Segers M., Benamou N., Eddabbeh N., Smagghe D.
Organizations: Airial Conseil, France
GFI Belgium
Business Flow Consulting, France
Short Description: The paper compares the approaches used in various recent R&D projects in order to support risk reduction and clinical governance. It emphasises the difference between ICT tools for:
- Collaborative practices: The IST PALLIANET Project illustrates in Palliative care the emergence of knowledge driven collaborative practices in healthcare networks.
- Co-ordinated care: The IST CARE-PATHS Project illustrates how the strict implementation of Clinical Pathways can contribute to the continuous improvement of the quality of care.

Key words: Decision Support, Clinical Governance, Good Practice Agents

15:50-16:10
Title: Medical Decision Support Systems Using Analytic Hierarchy Process: A Case Study of Malaria Diagnosis
Authors: Uzoka F-M. E., Barker K.
Organization: Department of Computer Science, University of Calgary, Calgary, Canada

Short Description: Research efforts in decision support systems for medical diagnosis have focused on hypothesis testing and management of uncertainties and imprecision, with a view to achieving efficiency and effectiveness in the diagnostic process. Medical diagnosis involves a complex decision process, especially when the disease has multiple symptoms. Malaria is one of such diseases that involve the multidimensional analysis of diagnostic variables, and whose incidence has a ravaging effect on the world’s population, especially in the tropics. Various world agencies have attempted to pay attention to the diagnosis, treatment and control of malaria. The development of tools to assist in the management of malaria has become imperative. In this study, decision support system for diagnosis of malaria is proposed using the analytic hierarchy process.

Key words: MDSS, Malaria, Medical Diagnosis, Decision Support System, Analytic Hierarchy Process, Knowledge Base, Pairwise Comparison Matrix

16:10-16:30
Title: Multi-Agent Network Model for Decision Making Support in Public Healthcare Management of the Region
Authors: Gusarova¹ G., Vittikh² V., Pavlov¹ V., Skobelev³ P., Fedoseeva³ L., Shamashov⁴ M., Losevskaya⁵ E., et al.
Organization: ¹Ministry of Healthcare of the Samara Region, Russia ²Institute for the Control of Complex Systems of the Russian Academy of Sciences, Russia ³Samara Municipal Polyclinic 15, Russia ⁴Software Development Company “Knowledge Genesis”, Russia ⁵SEC “Knowledge Genesis”

Short Description: The essence of the report is the description of the Multi-agent network model for decision-making support in public healthcare management of the region.

Key words: Multi-agents, Ontology, Integration, Individual Approach
### Conference Room 3

**10:30-12:30**

**Consultations as eHealth Key Factor**

Chair: W. Glinkowski, Center of Excellence “TeleOrto”, Department of Orthopedics and Traumatology of Locomotor System, Medical University, Warsaw, Poland

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<th>Time</th>
<th>Title</th>
<th>Authors</th>
<th>Organizations</th>
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<td>10:30-10:50</td>
<td>Asynchronous Teledermatologic Consultations for Orthopedic Patients</td>
<td>Glinkowski(^1,2,3) W., Prejbiś(^4) L.</td>
<td>(^1)Chair and Department of Orthopedics and Traumatology of Locomotor System, Medical University, Warsaw, Poland (^2)Center of Excellence „TeleOrto”, Poland</td>
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**Diagnostic System for Detecting and Indicating Cranial Movements**

**Author:** Vygon L. S.

**Organization:** Tomsk Municipal Hospital No. 2, Russia

**Short Description:** The practical experience and clinical results in diagnostic and treatment of cranial bone pathology after traumas in labor or other postnatal cranial traumas and in prevention of such heavy diseases as hydrocephalus, epilepsy, scoliosis, and many others have been accumulated.

**Key words:** Craniotherapy, Neuropathology, Diagnostics

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**Development of Informatics' System and Telemedicine in Croatian Primary Healthcare**

**Authors:** Stevanovic\(^1\) R, Stanic\(^2\) A., Mauher\(^3\) M., Galijasevic\(^1\) G.

**Organizations:**

\(^1\)Croatian National Institute of Public Health, Croatia

\(^2\)Orthopedic Clinics Lovran Croatia, 3Consultant, Zagreb, Croatia

\(^3\)Consultant, Zagreb, Croatia

**Short Description:** Croatia's health ministry has started a Internet based health care system project aimed at strengthening collaboration between health care institutions, expert groups and individuals providing health care. Some of the important reasons for undertaking the project are rationalisation of drug utilisation, and potential savings owing to a reduced use of specialists, consultants and hospitalization. This project as well as telemedicine applications in Croatian primary healthcare will be presented.

**Key words:** Internet, Primary Health Care, Informatics System
Inpatient and outpatient orthopaedic cases often require differential diagnostics. Particularly patients with septic complications need to be examined and diagnosed by dermatologist. There is an expanding use of teledermatology all over the world. The aim of the study was to optimize and test minimal requirements for easy and non-expensive teledermatologic consultation sufficient for further orthopaedic treatment.

**Key words:** Teledermatology, Digital Camera

**10:50-11:10**
**Title:** Optimum Design for a Teleconsultation System
**Author:** Clarke M., Zeimet M. (UK)
**Organization:** Brunel University, UK

**Short Description:** This presentation discusses the optimum design for a teleconsultation system, including consideration of the wider context of referral within a technology based health care system, the needs and characteristics of the consultation process, and technical issues.

**Key words:** Teleconsultations, Telemedicine Referral, Video Consultation, Videoconference

**11:10-11:30**
**Title:** Redefining the Future of Healthcare Through Telecardiology and Telemedicine
**Authors:** Racoceanu Cr., Ilinca G.
**Organization:** INFO WORLD, Bucharest, Romania

**Short Description:** Developed by Info World, IQPACS is the first 100% Romanian ever built complete PACS, today implemented in Romania, Bulgaria and South Africa. The presentation shall be related to a special implementation of IQPACS called The International Cardiology Network, as well as call for new partners within healthcare institutions in this project.

**Key words:** e-Health, Medical Software, Radiology, PACS, Telemedicine

**11:30-11:50**
**Title:** The First Russian Telemedicine Centre in the Correctional Institution
**Authors:** Matveev¹ N, Levanov² V. M., Kaligin³ A. A.
**Organizations:**

1. Moscow Research Institute for Paediatrics and Children Surgery, Russia
2. Nizhny Novgorod Regional Clinical Hospital, Russia
3. Dzerzhinsk city TB clinic, Russia
The first wide range telemedicine project in a Russian correctional institution is described. Over 150 prison inmates with skin diseases, heart diseases and tuberculosis were consulted during first 6 months of the project.

**Key words:** Prison Telemedicine, Teledermatology, Telecardiology, Tuberculosis

**11:50-12:10**
**Title:** Eight Years Experience in Marketing of Regional Telemedicine Projects in Russia

**Authors:** Selkov¹ A., Selkova¹ E., Stolyar² V., Chueva² N.

**Organization:**¹ Moscow Institute of International Business, Russia
² Russian Society of Telemedicine, Russia

**Short Description:** What to do if a region has no money? Our opinion is - they must earn own livelihood. Our research has shown that tele-consultation centres are economically feasible. So we offer enlargement analysis for better understanding of consumer needs in the region – all segments of regional market.

**Key words:** Marketing, Regional Telemedicine, Videoconsultations, Telelectures

**12:10-12:30**
**Title:** Tele-trauma and Tele-presence Resuscitation in Rural America: Southern Arizona Experience

**Author:** Latifi R.

**Organization:** Surgical Critical Care, University of Arizona, Tucson, Arizona, USA

**Short Description:** Establishing trauma systems to cover, not only the urban areas, but entire rural regions is a goal of many countries around the world, but achieving this goal is not an easy task and requires major resources, and knowledge. Therefore, there is a need for distance learning or virtual trauma education programs that will prepare regions and countries for implementation of trauma systems, as well as management of potential large scale bioterrorism and disasters. The use of telemedicine is long-standing, but only recently has been applied to the specialties of trauma, emergency care, and surgery. Subsequently the concepts of teletrauma, telepresence, and telesurgery have evolved and are being integrated into modern care of trauma and surgical patients. This presentation will review the current applications of Teletrauma at the Southern Arizona Teletrauma and Telepresence Program in rural Arizona, USA and future endeavors of telemedicine and telepresence in trauma and emergency care as the new frontiers of telemedicine application.

**Key words:** Teletrauma, Telecare, Tele-presence, Telemedicine

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**13:00-14:40**
**Internet as eHealth Tool**

**Chairman:** Giedrius Varoneckas, Institute Psychophysiology and Rehabilitation, Lithuania
Title: A Web Based System for Sleep Disorders Management

Authors: Varoneckas\textsuperscript{1} G., Zilinskas\textsuperscript{2} A., Varoneckas\textsuperscript{2} A., Podlipskyte\textsuperscript{1} A., Martinkenas\textsuperscript{1} A.

Organizations: \textsuperscript{1}Institute Psychophysiology and Rehabilitation, Vyduno Str. 4, Palanga, Lithuania
\textsuperscript{2}Vytautas Magnus University, Lithuania

Short Description: A Web-based system enabling population and physicians to learn about sleep disorders, to self-assess their sleep using an expert system including a Multidimensional Scaling algorithm to visualise the results, and to consult a physician via Internet enhancing the efficiency of diagnosis and treatment will be presented.

Key words: Web-based, Self-assessment, Sleep disorders, Visualization

Title: Architecting Disparate eHealth Systems Interoperable through Web Services

Authors: Ali S., Kiefer S.

Organization: Fraunhofer-Institute of Biomedical Engineering (IBMT), St. Ingbert, Germany

Short Description: Tele-Homecare is an active research field for providing preeminent acute medical homecare services to the patients. State-of-the-art telematic homecare platforms are usually afflicted with the problems of interoperability with their client Health Information Systems (HISs) regarding exchanging patient’s medical information in order to provide factual Telemetry, Telediagnosis, and Teletreatment. In our research work, we investigated the application of Web Services, a new breed of distributed computing, which is becoming a de-facto standard for the automatic on-the-fly orchestration of readymade on-demand services in the field of eHealth to achieve interoperability among disparate HISs.

Key words: eHealth Systems, Interoperability, Web Services, Semantic Web

Title: Biomedical Expert Internet System Based on the Morphological Bio-fluid Analysis

Authors: Buzoverya M., Zorya V., Ermakov P., Scherbak Yu.

Organization: Sarov State Institute of Physics and Technology, Russia

Short Description: A Biomedical Expert INTERNET System is presented as the computerized medical system based on a new diagnostics technology. The technology is built upon the bio-liquid morphological analysis and allows pathological conditions to be revealed at early (pre-clinical) stages of diseases. If the approach succeeds, the given technology via Internet will be available to European users.
**14:00-14:20**

**Title:** Computer Neural Network for Diagnostics of Eye Diseases  
**Author:** Dubich V.  
**Organization:** Krasnoyarsk State Technical University, Russia  
**Short Description:** The result of this work measurement is a reogram – a periodic curve with characteristic points. The elements of this curve contain information about eye diseases. Reograms are used for developing a database for computer neural network that can diagnose eye diseases.

**Key words:** Ophthalmology, Diabetic Retinopathy, Computer Neural Network, Information Technologies, Diagnostics of Eyes Disease

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**14:20-14:40**

**Title:** Computerized, Prognostic Simulation of Bone Remodelling Around Orthopaedic Implant for Preoperative Planning  
**Authors:** Lekszycki\(^1\) T., Glinkowski\(^2\,3\,4\) W.  
**Organizations:**  
\(^1\) Institute for Fundamental Problems of Technology, Polish Academy of Sciences, Warsaw, Poland  
\(^2\) Chair and Department of Orthopedics and Traumatology of Locomotor System, Medical University, Warsaw, Poland  
\(^3\) Center of Excellence „TeleOrto”, Poland  
\(^4\) Department of Anatomy, Center of Biostructure Research, Medical University, Warsaw, Poland  
**Short Description:** The present project combines in one the application of medical databases and expert systems, facilities offered by telemedicine and complex computer calculations enabling rough prediction of bone response after surgical operation (healing and remodelling processes).

**Key words:** Bone Remodelling around Implant, Prediction, Remote Consultation, Choice of Endoprosthesis Type

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**Conference Room 4**

09:30-12:00  
L'informatisation des services de support de l'hôpital: solutions, bénéfices et conditions de succès? 2. Présentation de 'business cases'  
Présenté par CRP-Santé et Association Européenne des Directeurs d'Hôpitaux  

La performance des nouvelles solutions informatiques: quels en sont les avantages et les principaux bénéficiaires?
Chaque business case nous présente une expérience pratique de mise en œuvre (business cases présentés en parallèle dans 2 salles):

Salle 1
09:30-10:00
La gestion des rendez-vous et de la logistique patient
Hugo Schellens, Ultragenda, Belgique

10:00-10:30
La gestion des urgences
Chris Dens, E.Care, Belgique

10:30-11:00
La gestion des repas
Guy Chevarin, Alpes Deis, France

11:00-11:30
Le suivi de la prescription
Dominic Lemmens, Cegeka, Belgique

11:30-12:00
Le contrôle qualité
Jean-Paul Coppens, JP&C Conseil, Belgique

Salle 2
09:30-10:00
La gestion de l’officine hospitalière
Michel Legrand, HICT, Belgique

10:00-10:30
L’archivage numérique des dossiers patients
Michel Bastin, IRIS, Luxembourg

10:30-11:00
La gestion du bloc opératoire
Anne Humbert, AUSY, Luxembourg

11:00-11:30
La logistique produits
Thierry Van Ravestyn, Phi Data, Luxembourg

11:30-12:00
L’analyse statistique et le datawarehouse
Sophie Van Malder, SPSS, Belgique

15:00-17:00
eHealth Standardization
Hosted by the eHealth Standardization Coordination Group - eHSCG (bringing together representatives from ITU, WHO, ISO, CEN, IEEE, HL7, DI COM)
Chair: Gunnar Klein, eHSCG Chairman, Karolinska Institutet, Sweden
ICT Standardization in WHO's Proposed E-Health Strategy

Healy J.C., Boucher P., et al.

World Health Organization, Geneva Switzerland

The World Health Organization is reshaping its approach to using information and communication technologies (ICT) for health, including health in the context of the MDGs relating to under-five mortality, HIV/AIDS, Malaria, safe drinking water and essential drugs, through its first Organization-wide strategy for eHealth. This strategy is far reaching and includes a framework for global action to promote best use of ICT for health, nationally and internationally. A significant component of this proposed strategy supports ICT standardization for data exchange and representation. It covers conflicts, awareness, coordination, developing country participation, and meta standards. WHO along with its partners will be defining data standards to assist the ART scale-up in Africa, promoting more extensive use of existing standards such as DICOM and HL7, and supporting easier access to open standards and implementations.

Key words: eHealth, Standardization, Information and Communication Technology, Policy and Strategy

Global Standards Co-operation to Support Developing eHealth Services and the European Focus Group Recommendations on Interoperability

Klein G.

Chairman of the eHealth Standardization Co-ordination Group, Karolinska Institutet, Sweden

TBA

A National Strategy for Health in the Netherlands and the Role of Standards

Beun J.

The Dutch organization for IT in Health (NICTIZ), The Netherlands

TBA

What Standards can mean for a Small Company
Author: Posthumus F.

Organization: The European Office of Crafts, Trades and SMEs for Standardisation (NORMAPME), Belgium

Short Description: TBA

Key words: TBA

16:20-17:00
Discussion