Hospital

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> OPTIMISING EFFICIENCY

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Editor-in-Chief and Publisher, Secretary-General of the European Association of Hospital Managers

Willy Heuschen
willy.heuschen@eahm.eu.org

European Association of Hospital Managers General Secretariat
32 Bvd du Jardin Botanique, B-1000 Brussels
Tel.: +32 (2) 733.69.01
Website: www.eahm.eu.org

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Lajos Ari, Ilona Borbás, Mathias Goyen, Claes Brylle Hallqvist, Eike-Henner W. Kluge, Ervin Kövesi , Nikolaos Maniadakis, Leopold-Michael Marzi, Shaun McLeod, David L. Morgareidge Athanasios G. Pallis, Ian Ricketts, Jonatan Schloss, Kenny Scott, Pernille Weiss Terkildsen, Kathyrn Went

NEW CHAPTERS BEGIN

Nikolaus Koller

2011 presents itself as a year of changes. Two changes deserve a place in this editorial.

After several years of exclusion of healthcare from the general Services Directive, the European Parliament voted on January 19th in favour of the EU Directive on Patients' Rights in Cross-Border Healthcare.

This Directive is a very important step in aligning the rulings by the European Court of Justice on cross-border care (Kohll ξ Decker et al.) and setting up a legal framework for patients wishing to cross borders for care.

It will allow to clarify the patients' rights and put in place a mechanism to avoid, as far as possible, that patients have to pay upfront for the transnational healthcare they receive. In principle, no prior approval from the home state is needed in order to reimbursed. But the Member States can require prior authorisation in a some particular cases. To avoid "health tourism", patients will only be reimbursed at home-country rates. Patients should have a copy of their medical records.

It foresees a contact point in each Member State, working together in a European reference network and providing practical information to patients on conditions and levels of reimbursement, possible treatments, providers, procedures for redress so that patients have a clearer idea on the quality and safety of healthcare provided abroad, which will lead to more informed decisions on cross-border healthcare. It also supports the development of "European Reference Networks" bringing together, on a voluntary basis, specialised centres of expertise already recognised in Europe. Furthermore, the setup of a voluntary network connecting national authorities responsible for e-health is included in this directive, as well as a similar network in the field of HTA.

The Member States have 30 months to integrate these measures into national legislation.There are still issues for debate (e.g. principle of prior authorisation, Cooperation on e-health and HTA).

This directive will have an impact, not only on patients, health professionals and health systems but also on us, health managers.

Our subcommittee on European Affairs will follow this topic and welcomes any vision and input from colleagues around Europe. *(E)Hospital* will communicate on this in the next issues.

This brings me to the second point I want to share with you. As communicated already, a new Editorial Board (EB) has been established since the last General Assembly. I have the honour of succeeding Mr. Heinz Kölking as President of the EB. The members of the EB will be working together to ensure that the latest developments and important issues for European hospital directors are covered in the journal and that these meet with the new objectives of the EAHM.

I would also like to take this opportunity to invite our readers and national organisations to propose topics, news and other important themes by contacting the Managing Editor or Editor-in-Chief. We are happy to follow your ideas and interests and consider them in future issues.

This issue's cover story focuses on the legal issues in today's hospitals. Other articles include Innovation in Denmark and to coincide with the Hungarian Presidency of the European Union Council we include a Hungarian country focus.

With this issue you will also find a special pharmacy section informing you of the latest trends in hospital pharmacy.

We hope you enjoy reading this issue.

Nikolaus Koller
President of the Editorial Board

The editorials in *(E)Hospital* are written by leading members of the EAHM. However, the contributions published here only reflect the opinion of the author and do not, in any way, represent the official position of the European Association of Hospital Managers.

Legal

Hospitals are a legal minefield and so this issue we take a look at the main legal issues facing our hospitals today. In an interview, Dr. Marzi from Vienna General Hospital gives his point of view citing data security and risk management as topics of key importance. The second article explains the novel concept of the "legal emergency kit" and how it has contributed towards the successful reduction of damage claims cases. In the final article of the cover story we delve into the ethical and legal challenges of e-health with Eike-Henner W. Kluge.

Pharma Special

This issue includes a special section on pharmaceuticals. Our aim is to keep you up to date with the latest issues in hospital pharmacy; from e-prescribing in the ICU to pharmacoeconomics in breast cancer treatment. An interview with Dr. Roberto Frontini, President of the European Association of Hospital Pharmacists, introduces us to the topic with a general overview of the sector as a whole.

Editor's Note
Correction Volume 12. Issue 5/2010 pg.38
The author erroneously named the Spanish National Healthcare System as the Instituto Nacional de la Salud. The correct name is Sistema Nacional de Salud, SNS.

Focus: HUNGARY

To coincide with the Presidency of the Council of the European Union, our country in focus is Hungary. After election victory in the spring of 2010, the Orbán administration took over the governance of Hungary in adverse circumstances. The newly formed Secretariat of State for Healthcare launched into vigorous action and its activity is characterised by an effort to reconcile interests and seek compromise. The workers of healthcare institutions support the government's endeavour for change in the hope that a new healthcare system will come about that meets the expectation of 21st century Europe and will be trusted by everyone.

WHP INITIATIVE: **HEALTHCARE FOR THE RURAL POOR TAKES TOP PRIZE AT IT @ NETWORKING AWARDS 2011**

Prachi Shukla from World Health Partners in India fought off fierce competition to take home the coveted *IT @ 2011* Trophy and a record 5,000 Euro cash prize at the *IT @ Networking Awards 2011.*

The winning solution, Healthcare for the Rural Poor, combines technology with village entrepreneurs acting as facilitators to connect rural communities with formally qualified urban doctors. Using remote medical diagnostics integrated with audio-video conferencing software this project enables patients from villages to access efficient and specialised healthcare in their areas.

Second place was awarded to "Clinical Workstation (CWS), the GPS of Every Medical User" (presented by Rudi Van de Velde).

Third place went to "From 'Micro-' Towards 'Macro-' Mobility. Building Efficient Clinical Processes by Using a Hospital-Wide, Standardised and 'Near-' Patient Communication Platform" (presented by Carl Dujat).

EAHM was proud to collaborate with HITM (European Association of Healthcare IT Managers) for this two-day competition recognising innovators in healthcare IT and medical technology at the Théâtre du Vaudeville in Brussels, Belgium. A great learning opportunity, this original event promoted open discussion between competitors from across Europe and beyond. Presenters shared not only their successes but also the obstacles they encountered along the way.

Willy Heuschen, EAHM Secretary General was on hand to officially open the event, welcoming contestants and delegates. Mr. Heuschen highlighted the increasing importance and relevance of healthcare IT and the great opportunity the *IT @ Networking Awards* is for decision-makers to learn about these solutions; to have access to their developers and users; and to ask questions and judge the projects themselves.

The competition consists of two rounds of presentations. Day one, the 20 nominees took to the stage for their MindByte presentations (five minutes). After each presentation the audience and panel of expert judges had the opportunity to ask questions before voting. The top nine projects from day one progressed to the second round of competition: WorkBench presentations. Each finalist had 30 minutes to present their project in detail and prove why they deserved to win. This was followed with a 15 minute Q&A session before voting. A lively two days, the audience and panel of expert judges did not hold back in questioning each presenter before casting their votes!

For more information, please visit: **www.itandnetworking.org**

IN MEMORY: **ASGER HANSEN**

After a long battle with cancer Asger Hansen passed away on January 14th, 2011.

Asger Hansen will definitely be remembered as one of the biggest personalities within the EAHM; his enthusiasm and dedication to the association never faltered. In recognition of his active role in the association, Asger was made an Honorary Member of EAHM at the 2010 congress in Zurich.

For 25 years he represented the Danish Association of Hospital Managers in the Executive Committee. Member of the Board, he was Vice-President and then from 1998-2002 the President of EAHM. As President Asger oversaw several key changes in the structure of the association. It was during his presidential mandate that the General Secretariat in Brussels and the subcommittees were created. President of the Scientific Committee since its creation, Asger guided the committee using his significant professional experience as General Director of Copenhagen University in Gentofte.

The EAHM wishes to express its sincerest condolences to his wife Conny, his family, friends and colleagues.

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UK

Consultant Surgeons go Beyond Contracts to Provide 24 Hour Patient Care

A comprehensive survey of the surgical workforce by the Royal College of Surgeons (RCS) reveals almost three quarters of consultant surgeons work more than their contracted hours and seventy percent report they are expected to undertake elective operations while they are supposed to be on call for emergencies.

The Surgical Workforce Report 2010 is the first edition of what will become an annual survey of surgical consultants' working practices and is intended to provide the NHS with accurate figures to inform long term planning of the numbers of surgeons required to serve the UK.

Results show that almost three quarters of respondents work above the standard NHS ten sessions a week recommended by NHS Employers (called "programmed activities" or PAs in the NHS). This entails working significantly longer than the 48 hour European working time limit – however just twenty percent of consultants have formally opted-out of the Working Time Regulation.

Nearly nine in ten consultant surgeons who responded to the survey work on call at weekends and evenings providing 24 hour care. Most of these surgeons work in on-call rotas between one in four, and one in eight. RCS guidelines state that time spent on call is intended to have a surgeon readily available to deal with emergencies – but seventy percent of respondents report they are expected to undertake elective operating lists during on-call time. This is a significant barrier to improving emergency surgery in some specialties in the UK.

John Black, President of the RCS, said: "This survey demonstrates the high level of commitment to patients that exists in surgery...It is a matter of concern that so many surgeons are being expected to undertake elective operations while on call – other studies have shown this leads to delays in them getting to emergencies as they cannot be in two places at once."

The survey will be available from RCS website at:
www.rcseng.ac.uk/publications/docs/surgical-workforce-2010-profile-and-trends

France

French Health Portal Provides Information about Health Institutions

The French Ministry of Health has recently introduced the PLATINES health portal (PLATeforme d'INformations sur les Etablissements de Santé) allowing the public to obtain detailed information about health institutions in Metropolitan France and in the French Overseas Departments and Territories. The Ministry of Health collects the data annually as part of the annual statistics of health institutions (SAE) compilation and the programme for medicalisation of the information systems (PMSI).

The portal is aimed at the general public as well as health professionals, health institutions and those seeking indicators on health institutions. The PLATINES portal provides information on services, facilities and quality of care in both private and public hospitals. Users can also find out about key features like equipment and medical, surgical or obstetrical activities.

Also available are the results of measurements of quality of care, rates of hospital-acquired infections and accreditation.

For more information, please visit:
www.platines.sante.gouv.fr

Germany

Use of Electronic Doctor's Card Begins

An electronic doctor's card scheme was rolled out on 1 February 2011 in the western German state of Rhineland-Pfalz. Doctors in this state have been able to apply for an electronic doctor's card (eArztausweis).

This electronic doctor's card can replace the conventional medical ID card. It contains a microchip that stores the doctor's signature, enabling them to sign electronic documents in a legally valid way, and encrypt and decrypt data to transmit it securely. Contracted doctors can also use the card to make online charges to the medical association for their services.

Professor Dr Frieder Hessenauer, President of the Medical Association of Rhineland-Pfalz, said that the medical associations in Rheinland-Pfalz are the first in Germany to offer such a card to their members.

He added: "The medical associations in Rhineland-Pfalz have done their homework reliably and timely, and set up for their members a completely non-bureaucratic, secure and protected members' area on the website of the district medical association."

With three easy steps doctors can now apply for the electronic doctor's card.

For more information, please visit:
www.laek-rlp.de

Efficient hospital logistics
the backbone of any hospital

Hospital in Oestfold, Norway.
Architects: Eliassen & Lambertz-Nilssen Architects, Arkitema Architects and AART Architects.
Engineer and logistics: COWI.

Hospital planning revolves around the patients who should experience their stay in the hospital as a coherent process which is characterized by high quality and professionalism. Efficient operation and reliability of services are therefore essential to a hospital's unconfined functionality. Hence, thorough planning and design of hospital logistics are required to ensure:

- easy and logic way-finding, short travel times and travel distances that increase the sense of comfort and security in patients and their families
- well-designed layout, interconnectivity and adjacency of hospital wards based on workflow and work processes that allow for optimal use of staff resources
- pleasant work environment that attracts qualified work force
- good hygiene, timely provision, correct transportation and storage of goods and waste that increase the overall patient safety

Detailed analysis and assessment of logistical solutions for hospitals can furthermore contribute to right-sizing of hospital facilities and operational optimization.

But not all analysis tools can be applied to healthcare facilities without adaptation to hospital specific workflows and characteristics. One example is the analysis of elevator location and capacity within a hospital. Traditional analysis tools for vertical transportation systems do not take into account the superposition of transport of patients and staff as well as hospital beds and goods. In a hospital environment it will always be required to separate these different types of transport (e.g. public and back-stage), therefore making it necessary to artificially mimic the real processes in computer simulations and customized calculation tools.

COWI has developed the purpose-built toolset Hospital Logistics Configurator. As part of the toolset, patient flow studies are used to determine potential bottlenecks in regard to workflow, capacity and functionality, as well as impact of patient flows on entrances, hallways and lifts. Traffic analyses map internal and external traffic routes and specify necessary parking requirements. Elevator capacity analyses simulate the impact of patient and staff flows as well as goods transportation on vertical transport systems and help defining the correct dimension and capacity. Transportation systems assessments analyze alternative logistical solutions and compare them in regards to capacity, spatial and technical requirements as well as investment and operational costs. With the help of these analysis tools and the use of LEAN design principles we can precisely determine the logistical design specifications for physical environment, technological solution, work process and interface with IT.

An excellent example for successful logistical planning and design is the new Østfold community Hospital in Sarpsborg, Norway where COWI has been specialist advisor on hospital logistics during the pre-design phase. The analysis outlined potential bottlenecks in the current design proposal and proposed a new logistical structure which would allow for a smoother flow of goods and appropriate sizing of logistical and technical areas. As a result of our analyses and recommendations on logistical concepts and technological solutions the project has undergone major changes in both layout and built area, which resulted in an improved logistical flow and more efficient operation. Through patient flow studies and assessment of optimal transportation systems the built area could be reduced from 125.000 m^2 to 87.000 m^2, herewith reducing investment costs for the new building by approx. 30 percent. At the same time, definition of logistical principles and detailed workflow descriptions for the different hospital goods (consumer goods, sterile supplies, food, beds, medicine, samples and blood products, waste management, etc.) resulted in an improved workflow which reduces idle time and optimizes the use of technological and human resources.

As explained in the case study, precise planning and design of hospital logistics can, to a high degree, contribute to creating a more efficient space for healthcare, hence ensuring optimal treatment for patients and better value for investment.

Helle Gaub, Head of Department for Hospitals and Health, COWI Denmark
Nadine Gottwald, Healthcare Facility Planner, COWI Denmark

European Commission and US Health Department Agree to Promote E-Health Interoperability

The Vice-President of the European Commission, Neelie Kroes, and United States Secretary of Health and Human Services, Kathleen Sebelius have signed a Memorandum of Understanding in Washington, to promote a common approach on the interoperability of electronic health records and on education programmes for information technology and health professionals.

The memorandum aims to foster a mutual understanding of the challenges faced by both sides in advancing the effective use of e-health. It outlines areas for cooperation and stresses the need for a joint vision on internationally recognised and utilised interoperability standards for electronic health record systems and increased competences and mobility of IT professionals. It foresees potential activities such as exchanges of information of ongoing projects, exchanges of selected delegations and specialists as well as the establishment of joint working groups to identify specific strategies for achieving shared goals.

The aim of the Memorandum of Understanding is also to create new markets and growth opportunities for industry in the e-health sector in both the EU and the US. The take up in the US of electronic health records outside hospitals is four times lower than in Europe. In the coming years, the US will invest around 20 billion dollars in deploying interoperable health records to physicians. This could have a positive impact on procurement for European companies in the US as well as boosting the Single Market for e-health in the EU. This will give patients better health and quality of life and improve the existing infrastructure of healthcare systems.

Although the agreement has no legal obligations, the development of the partnership between the EU and the US, the two world leaders in e-health, sends a strong signal to all stakeholders that common standards and interoperability bring opportunities for a global approach for the benefit of patients, health systems and the market.

For more information, please visit: **http://ec.europa.eu/information_society/activities/health**

MEPs Criticise Management of H1N1 Outbreak in Europe

On 25 January 2011, the European Parliament's Environment, Public Health and Food Safety Committee (ENVI) adopted a report on the management of the outbreak of H1N1 influenza in 2009-2010. The report highlights important concerns in terms of cooperation by the Member States, independence of the health authorities and transparency. It criticises the disproportionate response to the pandemic and raises concerns about the potential influence of pharmaceutical companies in response processes.

EU Member States' responses to the pandemic were uncoordinated and left individual health authorities implementing different strategies, leaving European citizens confused about their options and the severity of the outbreak. Vaccination programmes ranged from wholesale to none at all (in the case of Poland), which could only increase risks and help the spread of the pandemic.

To further discuss the concerns, on 9 February 2011, the EPP Group in the European Parliament organised a public hearing entitled "H1N1 influenza pandemic: Which lessons to learn for better management and EU coordination with Member States?" The list of expert guest speakers, consisting of representatives from the World Health Organisation, European Commission, European Council as well as national administrations and private organisations, was chaired by MEP, Anne Delvaux.

The hearing discussed important measures, which could help better deal with any future pandemic risks. This included: better general cooperation and coordination between the Member States' health authorities and the European institutions; an evaluation of the Member States' strategies to stock up on vaccinations; and the joint purchasing of vaccinations by the Member States.

MEPs also called for further safeguards to prevent potential conflicts of interest by publishing the names of experts who advise European health authorities. Following cases where this was not done, the report furthermore underlined that under EU legislation, full liability for vaccines must remain with the manufacturer, not with Member States, insisting on complete transparency of the medical products used in case of a medical and pandemic urgency. The report also calls on the World Health Organisation to review its definition of a "pandemic" to consider the severity of an illness, and not only the spread of a virus. To ensure the EU's own risk assessment capacity, the European Centre for Disease Prevention and Control should also be given the support necessary to assess risks independently, as well as perform its other tasks.

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CIRSE

THE LEGAL BRIEF

Avoiding Legal Landmines

Interview by Lee Campbell

Hospitals are legal minefields. From medical errors and malpractice suits to data security, hospitals are high-risk establishments. In order to find out the main legal issues facing today's hospitals, *(E)Hospital* spoke to Dr. Leopold-Michael Marzi, Director of Vienna General Hospital's Legal Office.

Dr. Marzi, thank you for agreeing to speak with us. As Director of Vienna General Hospital's legal office, tell us a bit about your responsibilities, daily activities.

It is very interesting for me to work in a hospital, because there are so many fields of activities, like public procurement, consulting, data protection, contract management, but also information for health professionals, quality management and risk management in order to reduce malpractice etc.

What are the main legal issues facing hospitals today?

I am of the opinion that the main legal issues are changing. The most important thing is to foresee trends before they are influencing our daily life. One example: It is more important to avoid errors and malpractice than to pay compensation some years after. But that is so difficult because you have to change attitudes and traditions and you need some years to see that things are getting better.

Many say that Europeans are becoming more and more like Americans in taking legal action against doctors and hospitals. Do you agree with this?

The legal systems in Europe cannot be compared with America; the USA and Europe are too different to say if this opinion is true or not. As a matter of fact, patients are no longer willing to accept that doctors decide what they have to do. And in case of malpractice they want to get appropriate compensation. This trend is not so much influenced by the USA as many people and also the mass media believe.

What are the legal implications of cross-border healthcare/medical tourism in hospitals? How are you dealing with the increasingly free movement of European citizens?

Cross-border healthcare and medical tourism are a worldwide phenomenon. People from Great Britain or Canada travel to India in order to be treated earlier and also for less money than in their home country. The creation of the Single Market in Europe leads to new developments in the economy and also social systems, but these social systems are still very different, because the social welfare state in every European country has its own history.

The Vienna General Hospital is also confronted with several kinds of patients from other countries. There are not so many rich people coming to Vienna to be treated in a public hospital, but patients from Eastern Europe have much more rights since many countries joined the EU in the year 2004. Many treatments cause a deficit for the City of Vienna but must be performed. We do not care from where people come if they need our help. But in the long run there must be political solutions on how to finance the local social system in the Single Market.

> it is more important to avoid errors and malpractice than to pay compensation some years after

Hospitals are integrating more and more advanced technologies, using sophisticated IT systems. Have these increased legal risks? (Data security with electronic health records etc.)

Data protection is one of the most important legal issues as I mentioned before. There are increasing risks caused by the IT systems. In former days data protection was much easier, because you could not copy and send whole files around the world in just a few seconds. We try to do our best in protecting data by making it almost impossible to transfer data without being controlled by the IT system.

How important/useful are risk management systems?

I believe that they are very important. Let me give one example: in the year 2000 I started a project in order to reduce damages in patient treatment. It was not very easy to persuade the health professionals that a legal practitioner is able to change the number or errors and damages occuring far away from his office. But together with our insurance company, the Vienna Insurance Group, we analysed every case and got a lot of information. One of the most interesting facts was that malpractice very often happens on Friday and during the weekend.

There are also "dangerous months" like January, March and July.

The most surprising finding was that the so-called "human factor" causes 80 percent of the damages. In other words: It is of great importance how teams are formed and what conditions they have in their everyday work etc.

> Hospitals are, and always will be, dangerous locations, but many risks can be reduced easily if you are aware which risks exist

We also established the "Legal Emergency Kit" (see page 12). If there is any legal problem during a medical treatment, the legal practitioner can be reached via mobile phone even in the evening and during the weekend. Though this means extra work, in the long run there are less cases and trials, because we learn from the cases in the past and improve our outcomes.

How are hospital staff kept informed about legal standards, procedures etc.? Do you have any legal training programmes or information seminars for hospital staff?

We organise a lot of activities, for instance legal trainings and seminars. But it is very difficult to reach the thousands of people working in our hospital. The "Legal Emergency Kit" I mentioned before really exists in every department. Inside you find a checklist that tells you how to behave in case of emergency from a legal point of view. We also inform our staff by intranet, because the access to information is very simple and cheap.

What do you think will be main legal issues for hospitals in the next ten years?

The main legal issue in the next ten years will be risk management in many forms. Hospitals are, and always will be, dangerous locations, but many risks can be reduced easily if you are aware which risks exist. I think it is wrong to talk about "patient safety" if you forget the hospital staff. So I prefer to talk about "hospital safety" including all persons working in the hospital for many years. If they are safe the patient will also be safe, almost automatically. We can learn a lot from aviation where the passengers are safe because there is a trained team working for them.

UPDATE: New European Cross-Border Healthcare Directive Passed

On January 19, 2011 the European Parliament passed the new Cross-Border Healthcare Directive, already approved by the 27 Member states in a deal reached at ambassador level on December 21, 2010.
The Cross-border Health Care Directive, penned in 2008 and due to come into effect in 2013, paves the way for EU residents to seek healthcare anywhere in the EU. The new legislation will expand patient rights and patient mobility, in particular by helping patients with rare diseases or those seeking advanced treatments, as well as those living along borders where the nearest hospital is across the line, or those who work in one country but want to get treatment near family members in another country. The directive will also make it easier for national health authorities to work more closely together and exchange information on quality and safety standards of healthcare and will support the development of "European Reference Networks", bringing together specialised centres of expertise already recognised in Europe.

Under the new directive, a request can only be refused if the treatment could quickly be obtained in the patient's current country, or if there are doubts about the qualifications of the physician. To discourage "health tourism", patients will only be reimbursed at home-country rates, meaning that if a treatment costs more in another country the patient will have to pay the difference. There are also safeguards to stop health centres from being overrun by patients from abroad. Furthermore, in cases where the treatment is very expensive or for example the patient must stay in a hospital, the patient must obtain prior authorisation from their current national health authorities.

In order to inform the public of their exact rights, the new legislation also foresees the establishment of contact points, which will provide information on healthcare across Europe. Each country must establish at least one national contact point for patients to get information about health providers, reimbursement procedures, and when prior authorisation is needed. Several measures are also foreseen to ensure continuity of care upon return to the home country. The country of treatment will ensure that patients have access to their written or electronic medical records related to the treatment they received, whilst the home country will ensure the medical follow-up is of the same quality regardless of where in the EU the treatment took place.

National governments now have 30 months to integrate these measures into national legislation and although the new directive has been praised as a step forward for patients in Europe, it has nevertheless faced criticism from various organisations. The Standing Committee of European Doctors (CPME) was disappointed by the amount of information available to patients before treatment and by the fact that vulnerable or disabled patients will not receive special consideration. Although CPME was pleased to see a call for increased international compatibility on health technologies to share patient information, plus more references to data protection. The European Consumers' Organisation (BEUC) had also requested a response to a patient request within 15 days, but the final version of the legislation allows countries to "set out reasonable time limits" to reply, which has been criticised as too vague.

For more information, please visit:
http://ec.europa.eu/health/cross_border_care/policy

THE LEGAL **EMERGENCY KIT**

Methods of Damage Limitation in Hospitals

By Leopold-Michael Marzi

Nothing is more difficult to change than prejudices and inflexible opinions. Thus, many legal practitioners hold the opinion (and rightly so to some extent) that they cannot change the matters they assess because these matters have not been caused by them. A criminal judge, who has to deal with traffic accidents occurring far away from his workplace on a daily basis, may be quite right in thinking this way, because, no matter how hard he tries, he cannot control or even influence the road behaviour of complete strangers in complex traffic situations. However, does this also hold true for a lawyer at the legal department of a large hospital, who is working together with a liability insurance company on the settlement of patient claims for damage to property or personal injuries?

If anything, would it be objective to state that the active efforts of a hospital's legal department have a noticeable effect on damage prevention? Even in cases where improvements have been achieved, it is still debatable whether these improvements are attributable to intervention by the legal department or to other causes.

Fundamental Questions

Considering that damage events in a hospital represent an absolutely undesirable development for all parties involved (including patients, personnel, the hospital's administration, the liability insurance company, etc.), it would make sense to assume that all parties have already made every effort to analyse precisely the genesis of these events in order to prevent them from happening in the future. Following this reasoning, the relevant background would already be well known and no mistakes could possibly occur for a second or a third time since employees are constantly being trained. Unfortunately, the above-mentioned assumption is, by and large, not verifiable;

- Why would otherwise classic mistakes – such as wrong side surgery, medication errors and misinformation – be committed repeatedly?
- What is the reason for hospitals still having "blank spots" on their legal maps despite the flood of regulations by lawmakers?
- Why is the (relative) frequency of damages considered as a fixed and therefore almost entirely unchangeable value, with no attempts being made to reduce it?
- Why is it so difficult for the medical profession and related health science professions to accept other complex work environments as models for the minimisation of damage?
- Why aren't healthcare professionals fighting for a different way of dealing with mistakes and damages in the healthcare system?

The list of questions can be continued indefinitely.

New Approaches to Claims Processing

Dwindling financial and human resources have one significant side effect: They compel the persons in charge to at least, for once, look into the possibility of using new and creative methods. However, the decisions finally made are not always genuinely creative.

Towards the end of the 90s, the financing of the Austrian hospital system became increasingly problematic. The economic characteristics of healthcare institutions can be summarised briefly as follows: They provide vital (in the truest sense of the word) services, which are (relatively) very expensive, because the work is rendered by highly qualified employees; these services are also available at night and during weekends, which results in extra costs; and, finally, the demand for such services continues to grow (simultaneously with the requirements of beneficiaries).

An economic paradox should be briefly touched upon here: If an intensive care unit succeeds in restoring a terminal patient back to health, this generates worse operating results as compared to when the patient dies quickly. While a paper mill can react to a worsened market and revenue situation by temporarily ceasing operations, this course of action would be nothing short of unthinkable for hospitals due to their statutorily imposed coverage mandates.

Yet nonetheless, hospitals can also operate (to some extent) based on economic criteria. The following section discusses the premiums for public liability insurance as a specific example to this effect. By paying the premium negotiated with their insurance company, insured persons obtain the right to receive compensation for damages resulting from the operation of the hospital. If the total claims settlement amounts grow continuously in the course of time, which has been the case for many years, premiums follow suit.

There are several possibilities to slow the increase of premiums. In the event of major damage, it is possible to introduce many types of deductibles for the insured healthcare institution. The coverage amount can be reduced in general or the insurance protection can be cancelled for several damage events and potentially modified to a self-financing model (in the hope that the insurance incident does not occur each year). On the part of the insurer, available options include measures such as the constant increase of premiums or, in extreme cases, the termination of the contractual relationship.

The interest situation of the contract partners seems evident here: The insurance companies that are geared towards making profit and the primarily public hospital legal entities have entirely disparate interests, i.e. profit maximisation and the greatest possible savings.

However, the approach of Vienna General Hospital's (AKH) legal department back in the year 2000 was entirely different. In the long term, both types of institutions have the same interests: They want as few damage events as possible, less payouts as a result and, conse-

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quently, smaller premiums. The latter may seem paradoxical with regard to insurance businesses, but this is easily explained. Since insurance companies are "constrained" to pay out dividends to their owners (primarily shareholders), it is important for them to gain surpluses from the "premium-to-claims settlement amount" ratio. As is well-known, however, balance sheets provide little information on the sums that they are based on. Therefore, the objective in 2000 consisted of minimising damages and the subsequent damage payments to such an extent as to break the trend of premium increases without pressuring insurance companies into a zugzwang (a compulsion to move) towards their owners and reinsurance companies. The question remains as to whether a legal department of a hospital is in a position to achieve this alone or in cooperation with others. In other words: Can a legal department, which, after all, does not normally deal with patients, have any impact on the development of damage claims?

Retrospective Damage Analysis

In order to even begin to solve this apparently unsolvable medical and economic problem, it is necessary to find out the true causes of damaging events. Thus, it is not sufficient by any means to stop halfway by only establishing the facts. Even laypersons know that certain medical disciplines are more damage-prone than others. Rather, the question was what factors (to some extent, entirely independent of the discipline) lead to the classic error types (omissions, mix-ups, oversights).

Therefore, the survey conducted in 2005 analysed all cases of damages since the year 2000, which had caused costs exceeding 700 euro (previously ATS 10,000) based on approximately 40 parameters with the assistance of the liability insurance company. The parameters included not only the age and length of service of those responsible for the damages, but also the time, weekday, month of occurrence as well as other factors such as communication or discipline-based aspects.

In summary, the following was established: The typical damage case occurs to an above-average employee in a risk-prone discipline especially often between Friday and Sunday in the months of January, March or July due to a preceding communication error, which resulted in the administration of the wrong medication.

It was remarkable that mistakes and, as a consequence, damages, were less attributable to skills than human weaknesses (lack of concentration, tiredness, overestimation of one's skills). Already decades ago, it has been established in other high-risk areas (for instance in aviation) that 80 percent of mistakes can be attributed to the human factor. Yet error prevention focuses exactly on this factor and staff are trained accordingly.

Even so, the insights of the retrospective damage analysis are relatively worthless if its results are, and remain, known only to the insurance company and the legal department of a hospital. Therefore the most important challenge was, on the one hand, to raise the awareness of the respective employees to (relatively infrequently occurring) cases of damage with a great impact, but without causing unnecessary panic and fear, on the other hand. The last point is especially relevant considering that those involved in such incidents very frequently tend to react in wrong way when they don't have access to proper assistance.

The Legal Emergency Kit

In 2007, the "legal emergency kit" was introduced in the Vienna General Hospital after being developed jointly by the legal department and the liability insurance company. It represents a handy plastic case, which is labelled accordingly and on which a section sign (§) is stamped. Every employee must be able to access such a plastic case within one minute of his/her workplace.

The legal emergency kit contains manuals on the correct behaviour in the event of damage (notification of superiors and the legal department, establishment of communication with the damaged patient, etc.) as well as reporting forms, important general information on liability insurance and the book "Legal matters in everyday hospital life" ("Recht im Krankenhausalltag"). Each clinic or department is permitted to add further materials to the kit.

Due to its distinctive design, the case has a high attention-getting value. Employees in the hospital have to open and familiarise themselves with the content of the case even before an actual emergency occurs.

One year after its introduction, the following intermediate results can be established: Clear improvements could be registered in terms of the raising of awareness among employees with regard to proper behaviour in the event of damage and critical / undesirable events are now being reported even faster than before. In general, the interest in damage prevention has increased.

Fast Accessibility of Legal Aid in Delicate Situations

Of course, the mere deployment of a certain number of legal emergency kits is not sufficient. The project only makes sense if legal advice is accessible quickly and non- bureaucratically in difficult situations. Since the office hours of a legal department do not usually correlate with the around-the-clock operation of a healthcare institution, it was necessary to address this problem as well. The solution here was to implement a telephone switchboard, via which the affected department could reach a lawyer after office hours in the evening and during the weekend. In most cases, initial advice over the telephone is sufficient, with the presence of the lawyer on site being essential only in some rarer cases.

Yet, why is this quick accessibility – for instance during weekends – so necessary? Many – lawyers – frequently argue that there is nothing so important, which cannot be dealt with early on the following workday. However, the fact of the matter is that all cases of damage, which have had long legal sequels, got out of control during the first three calendar days, i.e. independently of the weekday, on which the case occurred, due to incorrect behaviour of those involved. While the patient was already in contact with his or her lawyer, information was still underway to the legal advisor of the hospital.

The quickly accessible legal assistance is held in very high esteem by the hospital's employees; it means improved security, which ultimately benefits the patient. The damage statistics of AKH Vienna since the year 2000 show a clear reduction of the number of cases and also a decrease in the amount of damage claims payments. This can be attributed to many different measures including legal post-processing.

Summary

The legal emergency kit is but one element contributing towards the successful reduction of damage claims cases in AKH Vienna. Team trainings on the basis of already closed cases are just as sensible as the teaching of discipline-specific legal knowledge to employees. However, sustainable success is possible only if the endeavours persist unabatedly and all participants do not stop their continuous work on improvement.

Author:
Dr. Leopold-Michael Marzi,
Head of the Legal Department,
Vienna General Hospital

THE ETHICAL AND LEGAL CHALLENGES OF E-HEALTH

The Danger of the Technological Imperative

By Eike-Henner W. Kluge

E-Health promises to be a cost-effective and efficient way of providing healthcare at an affordable cost to patients who would otherwise be excluded or underserviced. However, e-health also comes with a series of ethical and legal challenges which, if not met before its implementation, could undermine its success. Among other things, changes in the nature of the healthcare professional-patient relationship, in informed consent requirements and in the apportionment of liability are implicated. Privacy concerns also arise and the position of health informatics professionals as well as of service providers is also affected. A further complicating factor is outsourcing.

Common perception and official pronouncements notwithstanding, what healthcare is delivered — and how — is not simply a function of health needs, financial resources and the number and training of available healthcare professionals. To a considerable degree, it is a matter of politics.

Politics, however, is not a rational enterprise nor is it driven by algorithms and formulae, despite the existence of healthcare economists and decision-theorists. It is driven by a mix of public attitudes and the values and agendas of politicians. This is a volatile mix that is subject to many influences. One of the most profound of these is the technological imperative: If something is technologically new, sophisticated and promises to provide a 'rational' solution to a particular problem, then it must be tried. The influence of this imperative is not confined to policy making. It can also be detected at the level of hands-on care.

Indeed, it has been suggested that, for one reason or another, modern healthcare as a whole is obsessed with technology, and that decision-makers and professionals alike cannot wait to apply technological innovations — much like children who must try out every new toy — and that e-health in particular is implicated.

E-Health and its Challenges

Of course such a sweeping view of e-health is unfair. If its proponents are to be believed, e-health has the potential of overcoming barriers of geography, professional availability, limitations of transportation and infrastructure, and even problems caused by socio-economic disparity. Moreover, it holds out the promise of maximising effectiveness and efficiency at the lowest possible cost without seriously interfering in patients' lives. Arguably, therefore, e-health is not so much an instance of the technological imperative as the wise and considerate choice by responsible healthcare planners.

However, the fact remains that to allow technologically grounded effectiveness and efficiency considerations to be the sole determinants of e-health planning is to fall prey to the technological imperative, because e-health comes with a number of potentially serious problems. These are not insurmountable. However, they should be addressed and solved prior to implementation, lest downstream difficulties undermine what otherwise would be a beneficial development.

Technical Reliability and Appropriateness

For example, there are challenges that are rooted in the technology itself. Device safety and standardisation are obviously important issues; as are the technology's ability to ensure data integrity and reliability and its power to gather and communicate data accurately with appropriate back-up measures to guard against malfunction or interruption.

As well, e-health is predicated on the assumption that the instrumentation will provide patient data without constant technical supervision, since this would constitute an intolerable intrusion into patient lives. Not only healthcare providers but also vendors and health informatics professionals (HIPs) are here affected. While similar concerns exist in the standard healthcare setting, the fact that the relevant technology is expected to function independently and reliably in unsupervised and geographically removed settings adds new parameters to the traditional picture.

Privacy, EHRs and Unique Patient Identifiers

Privacy issues also acquire a new dimension. By and large, national laws and international conventions (such as the European Union Directive 96/46/EC) stipulate that healthcare professionals and institutions have a duty to protect the confidentiality of patient data to the best of their ability, and that breaches in this regard should be communicated to the subjects of the data in due time and in an appropriate manner.

Over the past few years, healthcare providers have been at pains to ensure

compliance with these requirements and have developed such things as authorisation protocols, password protection, encryption and the like. However, these techniques are geared to a professional context and to an institutionalised setting that can be finely adjusted and controlled. E-Health introduces the patient and the patient's home environment into the mix. Here these measures may be neither possible nor appropriate. Nevertheless, the privacy requirements remain.

Moreover, e-health uses electronic health records (EHRs). This means not only that the records must be accessible on an as-needed basis but also that they contain unique patient identifiers (UPIs) so as to guarantee that the right patient gets the right intervention at the right time. Quite aside from any technical issues about the implementation of an integrated EHR architecture, there is also the issue of UPIs themselves. Both ethical and legal concerns have been raised in this regard relative to such issues as possible 'function creep' in their use.

Patients as Co-Deliverers of Healthcare and Liability

However, challenges are not confined to the technical sector. It would be disastrous for healthcare providers to forget that e-health turns patients (and sometimes their significant others) into active co-participants in the delivery of care. With this, the issue of liability acquires an entirely new form.

That is to say, healthcare has traditionally been based on the assumption that the data underlying healthcare decision-making have been developed by healthcare professionals, and that control of the data gathering process lies in the hands of these professionals and of the technical staff who assist them. Data-related mistakes or misadventures, therefore, are a matter of professional care, diligence and competence.

With e-health, patients become involved in the care delivery process not simply as subjects but as participants. When e-health is not entirely automated through indwelling telemetry, patients have to report the relevant data — and they may make mistakes either in measuring or in reporting values. Even when the process is automatic, it may happen that patients accidentally interfere with these automated measurements or their transmission. Liability apportionment therefore assumes a new aspect, and when family members or significant others are involved the issue of their co-responsibility also arises.

To be sure, there are juridical precedents from other areas of healthcare when patients contribute to negative outcomes. However, these are predicated on the traditional model of the healthcare professional-patient relationship which is based on three premises: First, that healthcare involves a direct patient-professional encounter; second, that the patient's contribution to the functioning of the techniques and technologies employed by the professional is essentially non-existent; and third, that the professional's own expertise determines the availability and reliability of instrument-based patient data and is independent of the patient's skills in the use or functioning of these tools. E-Health importantly changes this picture. Therefore it is doubtful that e-health can rely on the traditional approach to liability. Even the standard consent model may no longer be applicable.

E-Health, therefore, requires not only the development of appropriate patient-training modules but also the development of new consent and liability models that acknowledges the patient's (and the significant others') expanded agency in the care process.

Expanded Role of HIPs

Furthermore, HIPs play a much more expanded role in e-health since they are the technical lynch-pins of the whole system. Of course HIPs are also integral to any intervention that uses electronic devices in standard healthcare. However, in e-health their role goes beyond providing technical support. The reason is that e-health requires patients to understand the functionally important aspects of the technology with which they are involved because their actions (or lack thereof) may importantly interfere with or alter the functioning of the relevant protocols and devices. True expertise in this regard does not lie in the domain of medicine and healthcare but in the arena of the health informatics. It would therefore be inappropriate to turn communication and patient training in this regard into an add-on responsibility for physicians. With this, however, HIPs now acquire an educational and informed-consent duty that supplements those of physicians. It goes almost without saying that the issue of liability apportionment also has to be revisited from this perspective.

Moreover, purely technical issues such as transmission characteristics, bandwidth issues etc., are significant factors in e-health. Decision-making about what is functionally appropriate in this regard is different from decision-making about whether to use an MRI or some other diagnostic device. The latter is a matter of physician expertise and responsibility; the former, however, is a matter of technical expertise. With e-health, therefore, the role of the HIP expands beyond the traditional scope of purely technical expert and includes giving advice on the choice of the technology itself — with attendant healthcare implications.

Interoperability and Legacy Systems

There is also the following consideration: While e-health is an innovation, it is not an innovation that supplants current healthcare delivery. It extends it. This means that e-health is not a stand-alone modality but something that has to integrate seamlessly into whatever system of healthcare delivery is in place.

This also has ethical and legal implications:

First, the fact that e-health must function in an environment that involves distinct kinds of material items and protocols means that it can be implemented only if it can be incorporated seamlessly into the legacy systems that form part of the established healthcare structure. Interoperability is therefore a necessary material condition for its success, since otherwise treatment may be impaired by the technology and the fiduciary obligation of the attendant healthcare professionals and institutions may be put at risk — with serious legal consequences. This goes beyond guaranteeing interoperability within the institutional setting that is hospital-based. It also includes the problem of integrating e-health with the databases and operating systems that are used by individual physicians and other healthcare providers whose patients participate in e-health.

Second, as a new modality, e-health is subject to close scrutiny regarding appropriateness, safety and the like. However, quality assurance being what it is, this means that such scrutiny will expand beyond the immediate context of e-health to include the existing healthcare structures, so that in case of unusual incidents the operational flaw can be correctly identified as belonging either to the existing structures or to e-health — or to the interface between them. While it is highly likely that sooner or later general quality assessment of existing structures would be undertaken anyway as a matter of continuous quality management, the introduction of e-health may well trigger and accelerate this process. The introduction of e-health, therefore, would not only have ethical and legal implications but financial ones as well that go beyond the costs associated with the development of e-health itself.

Third, like any electronics based technology, e-health is subject to Moore's law. Consequently, given the rapid changes in ICT, diagnostic technology etc., there lies a corresponding duty, rooted in the fiduciary nature of the healthcare provider-patient relationship, to ensure that e-health systems contain within themselves appropriate measures to ensure a seamless legacy structure that integrates as its various aspects, protocols and components as these become obsolete and are replaced. Planning for e-health, therefore, cannot ethically proceed without making appropriate plans in that direction. In other words, it is not a modality that is complete and can be "forgotten" once it is in place. Again, ethical, legal and financial implications stand in the wings.

Outsourcing and its Associated Problems

Another parameter that may deserve attention is outsourcing. Since the decision to become involved in e-health is usually based on cost-effectiveness and cost-benefit considerations, healthcare planners and administrators sooner or later turn to global players both for the applicable technology itself as well as for the provision of relevant services simply because, as a matter of scale and of disparate wages, global players are generally capable of providing the relevant technologies and services at a lower cost. This means that international corporations specialising in information- and data-management may come to provide such services while themselves being headquartered or located in another jurisdiction. Also, because e-health requires intensive monitoring and a fast turn-around time, and because trained staff is scarce or unavailable on a constant basis, institutions may be tempted to turn to international medical diagnostic and consultative service providers. This is not a speculative scenario. It has already happened in other contexts and on several occasions services that were originally provided by national or local agencies have become outsourced to international providers. Radiographs originating in Chicago have been read in Bangalore or Zurich, billings originating in Berlin or Mexico City have become outsourced to Bloomington or Chennai. Even medical notes that have been taken in one country have been outsourced for transcribing to other countries where the native language of the transcribing individuals is other than that of the note-taking medical professionals. In other words, there is the distinct possibility that in order to employ the relevant technology cheaply, and purely for the sake of "rationalising" the associated costs that accompany the implementation e-health, outsourcing may become a major factor.

Such practices, however, raise privacy concerns to a whole new plateau. International technology- and service-providers are bound not simply by the contracts through which they provide their services but also by the laws of the countries in which they are based as corporate entities. This may make it impossible for the outsourcing parties to guarantee the privacy standards that are mandated within the jurisdiction in which they themselves are incorporated and in which they provide the services that they have outsourced.

Professional standards present another challenge in this connection. Patients expect, and healthcare providers are legally obligated to provide, care that meets the professional standards of the jurisdictions in which the care is actually provided. If outsourcing occurs, an effective and enforceable mechanism must be in place to ensure that there is some means for holding the distant party responsible if professional errors occur, where this mechanism will not be more burdensome or more cumbersome than what is in place in the outsourcing jurisdiction. Otherwise, outsourcing services will occur at the price of patient rights.

Conclusion

E-Health is a technically sophisticated modality of healthcare that is designed not only to provide continuous care where none was possible before, but also to provide such care in a qualitatively unexceptionable manner and at a reasonable cost to a great variety of patients. Moreover, it presents the promise of rationalising health expenditures by limiting institutional admissions and interventions to truly appropriate cases rather than operating in a one-size-fits-all and cost-intensive manner and treating potentially ambulatory patients as institutional cases.

However, like any new modality, e-health is not without its challenges, and these are not merely technical in nature. They include value-issues that go to the very nature of healthcare itself, to the nature of the healthcare provider-patient relationship, to the role and responsibilities of the informatics professional, and they include such issues as informed consent, privacy and liability.

Finally, and perhaps above all, e-health presents a human challenge. Data show that while some patients welcome e-health as an indication of concern for patient well-being that is not limited by geographic boundaries, other patients reject it as an unacceptable medicalisation of the home environment and as an intolerable intrusion into their homes and private lives.

None of these issues detract from the promise of cost-effectiveness and efficiency that is presented by e-health. However, this promise should not blind anyone to the fact that, like any technological solution to an existing problem, the solution brings problems of its own, that these are not simply technical in nature — and that they must be addressed before the technology is applied. To forget this would indeed be to act on the basis of the technological imperative with potentially disastrous implications.

Author:
Eike-Henner W. Kluge
Department of Philosophy,
University of Victoria, Canada

USING INNOVATION TO OPTIMISE **HOSPITAL BUSINESS MODELS**

By Pernille Weiss Terkildsen, Claes Brylle Hallqvist and Jonatan Schloss

With any major hospital build comes the notion that a much better corporation will come out of the new buildings – for staff, for patients and financially. The idea is to create an ultramodern hospital in all possible aspects, both once inaugurated and in many years to come. The parties involved use buzzwords such as 'flexibility', 'sustainability' and 'general standards'; however, a hospital meeting all of their formulated expectations is yet to be seen. We are currently in the early phase of the hospital construction project dubbed "Nyt Hospital Bispebjerg", and we wish to suggest how different sources of innovation – combined with a detailed and evidence-based baseline – can ensure that heavy fixed asset investments also result in an operationally optimised business model.

The market area of welfare innovation is growing rapidly. User-driven innovations of many kinds take their starting points in any type of product, ranging from syringes to buildings. An often-used innovation term regarding welfare is innovations with user involvement, more commonly referred to as user-driven innovation. The logic is to create innovation by focusing on the end-users, which has become an accepted premise within both private and public corporations.

Limitations of User Involvement

It has long been common to initiate major user process innovation with the participation of staff in Scandinavian hospital constructions. There are however only a small number of individuals amongst public hospital management and staff who have work experience within other industries or sectors, or who have experience with previous hospital constructions.

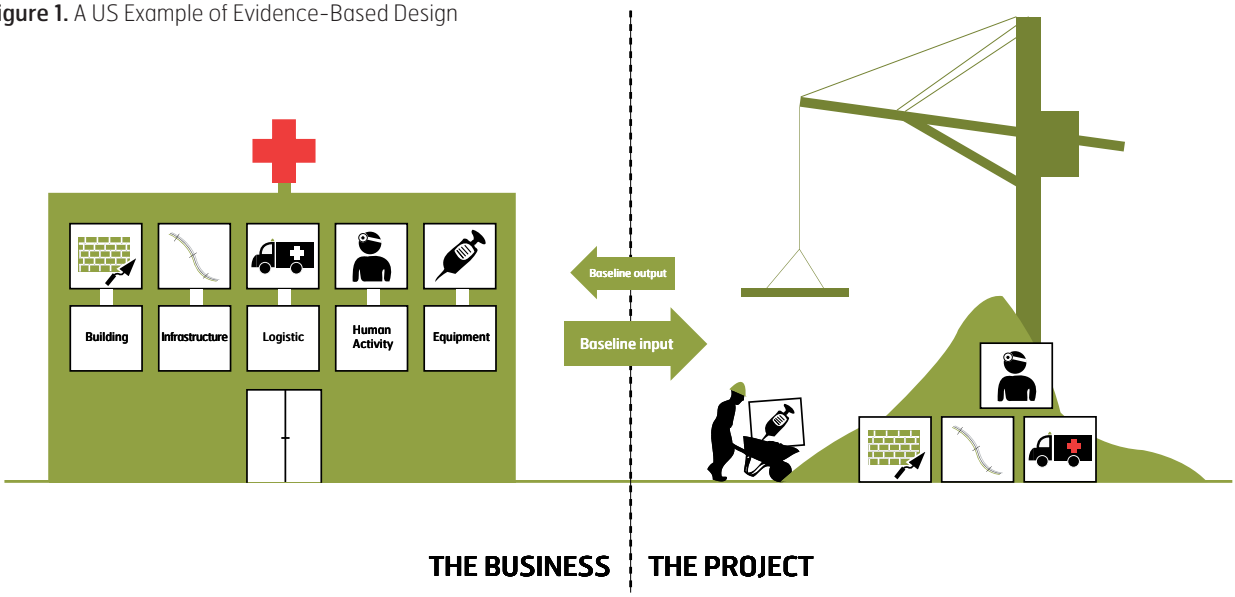
Knowledge must therefore be gained elsewhere if a public hospital is to learn from the experiences of other industries, for example the retail industry's logistics, or the systematic work of the hotel industry regarding customer satisfaction of the services provided. Furthermore, there is the distinct possibility that when asking the current doctors and nurses about their visions for the design and organisation of the future hospital, the result will be today's hospital but with new furniture and equipment, freshly painted, and with more space.

The latest trend is the active involvement of patients and citizens in the construction project. This is done to ensure that the completed new buildings meet the demands, expectations and wishes of "the patient of tomorrow".

Detailed Baseline

Prior to the initiation of the user-driven innovation processes, it can often be beneficial to establish a detailed baseline so the organisation can map its hospital by facts. It is not enough to ask experienced members of staff, patients and citizens for their preferences and opinions. The individual end-users will often have the tendency to merely focus on a small part of the innovation potential, connected with their own needs.

Figure 1. A US Example of Evidence-Based Design



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(E)HOSPITAL PHARMA SPECIAL

This issue includes a special section on pharmaceuticals. Our aim is to keep you up to date with the latest issues in hospital pharmacy; from e-prescribing in the ICU to pharmacoeconomics in breast cancer treatment. To get a general overview, who better to ask than Dr. Roberto Frontini, President of the European Association of Hospital Pharmacists (EAHP).

INTERVIEW:
ROBERTO FRONTINI
President of the European Association of Hospital Pharmacists (EAHP)

By Lee Campbell

(E)Hospital: **Dr. Frontini, thank you for agreeing to speak to us. As President of the European Association of Hospital Pharmacists can you tell us a little about the association (its role, current activities, etc.)?**

Frontini: The EAHP was founded 1972 as a federation of national associations of Hospital Pharmacists. Members are countries of the European Council, today 31 representing more than 21,000 pharmacists. EAHP supports the profession through science and networking with sister associations as well as stakeholders in European projects on patient safety, education and procurement. EAHP is also recognised as important partner at the European Medicines Agency (EMA), European Directorate for the Quality of Medicines and HealthCare (EDQM) and at the European Commission. The annual congress is the second biggest meeting on hospital pharmacy worldwide and attracts around 3,000 people not only from Europe.

(E)Hospital: **Moving on to hospital pharmacy as a profession. What are the main responsibilities of a hospital pharmacist?**

Frontini: Hospital pharmacists make the difference in medication use. Their responsibility includes not only the procurement and quality assurance of the medicines but also their appropriate and safe use. Modern hospital pharmacy is patient-oriented and supports physicians making decisions at the patient's bedside. For example, checking interactions with other drugs and appropriate dosing reduces errors and as consequence costs. Individualised medicine requires individualised drugs. Hospital pharmacists take high responsibility in preparing and compounding medicines under GMP (Good Manufacturing Practice) conditions. Therefore it is crucial to have both clinical and manufacturing expertise.

(E)Hospital: **What would you say have been the three most important developments in hospital pharmacy in recent years?**

Frontini: First is the major role hospital pharmacists have taken in terms of patient safety. This begins with "procurement for safety", i.e. avoiding sound- alike and look-alike medicines. It is crucial in compounding and ends at the patient's bed by advising physicians and nurses. Since the beginning of this millennium hospital pharmacists have become more and more involved in the process, becoming stakeholders for safety.

The second most important development in recent years is the implementation of hospital pharmacy specialisation in almost all countries, covering 75 percent of the European population. The specific setting of hospitals requires a high level of education to understand the complex therapies used in acute situations and rare diseases. EAHP created this year a list of competencies necessary to work in hospitals.

I would say the third most important development is the automation in different fields of hospital pharmacy. This includes distribution, traceability by barcode technology and also compounding robots. The goal is not only a higher efficiency but more importantly the reduction of errors.

(E)Hospital: **What trends do you predict for the future (main challenges to overcome; new technological developments)?**

Frontini: Our profession is taking more and more responsibility. "Collaborative prescribing", i.e. shared responsibility with physicians is already reality in some countries and the big challenge for European pharmacists. We need more clinical-oriented education and harmonised specialisation to fulfil the requirements in the future. While physicians have to cope with more and more sophisticated and complex diagnostic methods as well as challenging new surgical technology, the complexity of modern medicines needs the support of competent professionals and is no longer manageable only by physicians. Hospital pharmacists have to take on this role in the future.

(E)Hospital: **Our recent congress focused on quality. What is the hospital pharmacy sector doing to promote quality and safety in healthcare?**

Frontini: As follow up of the results of the survey carried out by a working party in the EDQM,

EAHP was a stakeholder in preparing a resolution on quality and safety assurance requirements for medicinal products prepared in hospital pharmacies to meet the needs of special patients. It is important for patients that the quality of medicines produced in hospital pharmacies is the same as industrial products. But the most important field is the contribution made by clinical pharmacists working together with other healthcare professionals. The EuNetPaS project supported by the European Commission selected many best practices for patient safety in hospitals. Hospital managers can contribute implementing such best practices in their hospitals.

(E)Hospital: **This is your opportunity to address European hospital managers. What could they change or implement in their hospitals to facilitate hospital pharmacists?**

Frontini: There is impressive evidence from international research that hospital pharmacists are very cost-effective personnel. However, in some countries or in some hospitals, their position as advocates for safe and evidence-based medication use is not well recognised. Hospital managers can facilitate the process by allocating more resources to implement clinical pharmacy.

In committees, pharmacists should be represented at the same level as physicians and nurses. Only having their voice in all medication related processes guarantees the quality of the process.

Some managers believe that outsourcing pharmacy services is necessary because of the high costs of the facilities but this does not take into account the synergy between clinical and back office services. The tight connection in the on-site pharmacy between clinical and other staff responsible for procurement and compounding is the most efficient way to get best outcomes and reduce errors.

HOT TOPIC: The Safe Handling of Hazardous Drugs

The safe handling of hazardous or cytotoxic drugs is of huge importance for pharmacists, doctors, nurses and hospital managers alike. Workers may be exposed to a cytotoxic drug during all stages of its life cycle—from manufacture to transport and distribution, to use in healthcare or home care settings, to waste disposal. But what are cytotoxic drugs and what precautions should be taken to ensure patient and staff safety?

What are Cytotoxic drugs?

Cytotoxic drugs are commonly used in hospitals for the treatment of cancer by chemotherapy. The drugs have a toxic effect on cells and are therefore used to inhibit the proliferation of cancerous cells. The safety concern arises as the drugs can damage normal cells as well as cancerous ones. This is true for both patients and healthcare workers preparing or administrating these substances.

Normally administered by injection of single doses or continuous infusion, risk of exposure is possible through contact with skin or needlestick injuries. While long-term effects are unknown, some drugs have proven to be carcinogenic.

Risk Assessment

There is a wealth of information out there for ensuring the safe handling of these substances. Most publications focus on procedures for safe drug preparation, administration and disposal. Healthcare facilities are also encouraged to perform risk assessments.

Taking Ireland as an example, the HSE (Health and Safety Executive) believe there are five key steps to carrying out a risk assessment for the safe handling of hazardous drugs:

1. Identify the hazards.
2. Decide who might be harmed and how.
3. Assess how likely it is that cytotoxic drugs could cause ill health and decide if existing precautions are adequate.
4. Record significant findings of the assessment and keep a written record.
5. Review the risk assessment and revise if necessary.

The US Centers for disease control and Prevention also offer some insights. Their procedure recommendations include assessing the hazards in the workplace and training staff appropriately; handling the drugs safely by developing a programme of procedures and training for handling and cleaning up spills; and of course using and maintaining the equipment properly.

Handling Waste

The World Health Organisation (WHO) emphasise that waste collection of cytotoxic drugs is also of key importance and that guidelines for the safe handling of such drugs should not stop after their administration. Indeed, they recommend that the senior pharmacist, or in larger institutions, a designated Genotoxic Safety Officer, should take responsibility for the safe management of cytotoxic waste.

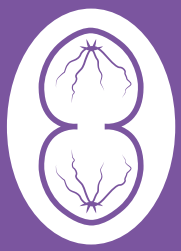

Figure 1. Cytotoxic waste symbol

Waste handling procedures should include rules to ensure:

1. The separate collection of waste in leak-proof bags or containers, and labeling for identification;
2. The return of outdated drugs to suppliers; and
3. The safe storage separately from other healthcare waste.

Sources of Information and Further Reading

- HSE Information Sheet: Safe Handling of Cytotoxic Drugs (first published 9/03), **www.hse.gov.uk/pubns/misc615.pdf**
- Hazardous Drugs in Health Care Settings, Centers for Disease Control and Prevention, NIOSH, **www.cdc.gov/niosh**
- Prevention Guide: Safe Handling of Hazardous Drugs, ASSTSAS, **www.asstsas.qc.ca**
- Health and safety practices for healthcare personnel and waste workers, WHO, **www.who.int/water_sanitation_health/medicalwaste/140to144.pdf**

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PHARMACOECONOMIC ISSUES IN BREAST CANCER THERAPY

By Athanasios G. Pallis, Nikolaos Maniadakis

Breast cancer represents the most common type of cancer for female patients. It is estimated that approximately 210,000 new cases occurred in 2010 in USA, while approximately 40,000 patients succumbed to their disease (1). Because of its high incidence, it is clear that breast cancer is a disease with a great epidemiologic and economic burden. There are many alternative therapies for managing patients nowadays, each of which is associated with different efficacy, safety and economic profile. Given the fact that resources are scarce, they must be invested in those options that maximise the health outcomes gained.

Direct and Indirect Costs of Breast Cancer

The total cost of breast cancer includes not only the medical cost (i.e., cost of screening, prevention, pharmaceutical treatment, surgical intervention, and palliative care) but also the indirect cost of the disease in terms of lost productivity and premature deaths. This issue becomes very important given that a significant percentage of the cases of breast cancer occur in women younger than 50 years of age and that breast cancer is the leading cause of cancer-related death in women of the productive age of 20 to 59 years (1). However, despite this fact the majority of studies take into account only direct costs, although it is often the smallest contributor to the total cost per patient (2).

A review of the literature performed by our group, studying the economic impact of breast cancer found that in the US the lifetime cost per patient varied between 15,000 euro and 75,000 euro, with chemotherapy being the greatest driver of the total direct cost while the mean monthly cost per patient was 2,152 euro (2). In Sweden, the annual total cost for patients with metastatic breast cancer was estimated at approximately 35,000 euro. Hence, breast cancer patients impose significant burdens upon healthcare systems, especially in terms of drug management. Another important driver of economic burden relates to surviving breast cancer patients or breast cancer recurrences, mostly because of the intense use of medical resources for management and follow-up (2).

Healthcare Improvements and Their Economic Impact

During the last decade, several improvements have occurred in the field of drug treatment for breast cancer patients. A number of these have been integrated into everyday clinical practice and have substantially changed the landscape of breast cancer treatment. Namely these are the incorporation of taxanes in the adjuvant treatment (3), the use of aromatase inhibitors (letrozole, anastrozole, exemestane) versus tamoxifen for patients with hormone receptor positive breast cancer (4;5), and the use of trastuzumab or lapatinib for patients with Her-2 positive disease, either in the adjuvant or advanced disease setting (6).

However, apart from their undoubted clinical significance these new treatments have an important impact on healthcare systems and healthcare resources and are associated with substantially higher costs compared to traditional ones. In this light, policy-makers and managers should consider evidence regarding the cost-effectiveness of these new therapies, in order to optimise the use of the finite resources of health-systems.

Taxanes

Taxanes in the adjuvant setting were proved to be cost-effective, with a reported cost per quality adjusted life year (QALY) for taxane vs. non-taxane-containing treatment therapies between 14,000–50,000 euro, depending on the taxane used (docetaxel or paclitaxel) and the specific trial used as the basis of the analysis (7).

> breast cancer patients impose significant burdens upon healthcare systems, especially in terms of drug management

Aromatase Inhibitors

Aromatase inhibitors (AIs) have been tested against tamoxifen either in the adjuvant or in advanced disease setting and proved to be cost-effective (2). Studies evaluating the cost-effectiveness of AIs in metastatic breast cancer have clearly demonstrated that AIs are cost-effective compared to tamoxifen with a mean incremental cost per life year gained (LYG) of 2,786 euro (8). In the adjuvant setting three different strategies have been tested versus the standard

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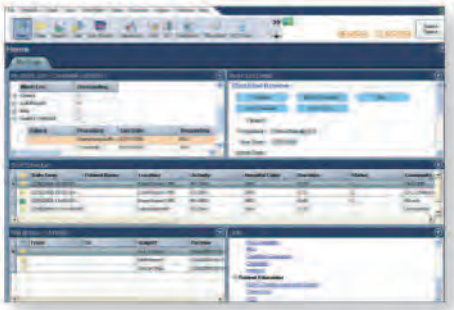
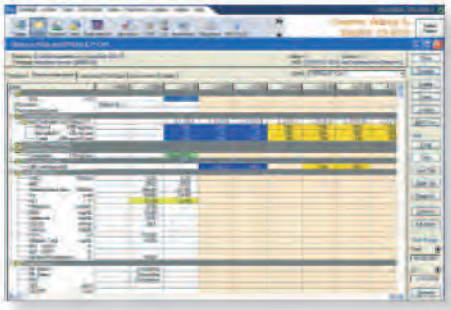


Chemotherapy Prescribing

MOSAIQ's integrated medication management solution increases the integrity of the prescribing process and enhances practice efficiency by removing the complex flow of paper around the department.

Care Plans and Clinician Worksheets streamline and improve order accuracy with fast, single-screen processing of chemotherapy orders. All relevant parties can access the same prescription for review, clarification and approval which combines with First Data Bank for interaction checking of medications.



From a single Clinician Worksheet, users can view critical information, review lab results, plan and order treatment, track patient progress and modify orders based on patient conditions.

Pharmacy Dispensing

MOSAIQ's integrated pharmacy dispensing module provides a dynamic worklist in which to manage and plan workload throughout the pharmacy. Configurable worklists ensure easy tracking of patients scheduled for treatment have an approved prescription and supports improved communication across the multi-disciplinary team.

Documentation of pharmacy tasks is supported including the reconstituition of drugs validating and signing of the protocols and a full drug audit available from one screen.

Treatment Documentation

MOSAIQ Medication Administration Record allows nurses on the wards to electronically document chemotherapy administration supporting multiple sign offs and documentation. All this information is stored in the MOSAIQ database allowing review prior to the next cycle of chemotherapy.

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of five years if tamoxifen: either upfront AI, or sequential after two to three years of tamoxifen for a total of five years or finally extended treatment with AI after five years of tamoxifen. An economic analysis evaluated all these three different strategies (9). The cost-effectiveness ratios for AIs (data are available only for anastrozole and letrozole) as initial upfront treatments versus tamoxifen were estimated to be 38,000 euro and 25,700 euro per QALY, respectively. For the sequential approach, data was available only for anastrozole and exemestane. The cost-effectiveness ratios were estimated to be 26,500 and 22,800 euro per QALY, respectively. Finally, in the extended adjuvant setting, data were available only for letrozole and the cost per QALY was estimated to be 11,700 euro.

Trastuzumab

A recently published systematic review evaluated the cost-effectiveness of adjuvant trastuzumab treatment (10). Cost-effectiveness ratios reported, ranged from 3,728 euro/QALY to 99,975 euro/QALY, but most studies reported favorable cost-effectiveness values (ie, below 37,000 euro/QALY). In a similar way a National Institute of Health and Clinical Excellence (NICE) guideline evaluated all the available data for the trastuzumab adjuvant studies and estimated that the incremental cost per QALY gained with adjuvant trastuzumab treatment ranges from 19,000 euro to 39,000 euro (11).

Lapatinib

Recently lapatinib in combination with capecitabine was proved to offer a statistically significant prolongation of time to tumor progression in patients with metastatic breast cancer, over single-agent capecitabine (12). However, a cost-effectiveness analysis of this trial failed to demonstrate that lapatinib was clearly cost-effective for the treatment of patients with Her-2 positive metastatic breast cancer. The combination of capecitabine/lapatinib was associated with a cost per LYG of 120,184 and a cost per QALY gained of 192,279 euro(13). This drug was also rejected by NICE as not being cost-effective (14).

Conclusions

A literature review of recently published studies evaluating the cost-effectiveness of the aforementioned therapies has concluded that these therapies are in general cost-effective, in various settings and countries, with incremental cost-effectiveness ratios in line with those of many other reimbursed therapies (2), with the only notable exception of lapatinib.

Such pharmacoeconomic analyses are valuable for health policy-makers and hospital managers because they facilitate decision-making and optimisation of the use of scarce healthcare resources allocated to the treatment of cancer and the care of patients.

Editor's note: All currency has been converted to euro using the daily exchange rate.

Authors:
Athanasios G. Pallis
Department of Medical Oncology
University General Hospital of Heraklion
Crete, Greece

Nikolaos Maniadakis
Department of Health Services
Organization and Management
National School of Public Health
Athens, Greece

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TransCar, the Automated Guided Vehicle System


PillPick, the Automated Drug Management System


TranspoNet, the Pneumatic Tube System delivers therapy rings automatically to the wards

ST. OLAVS UNIVERSITY HOSPITAL
The realization of a premium case of integrated logistics solutions

St. Olavs Hospital is a health enterprise and university hospital in the Mid-Norway region with a total of 630 000 inhabitants. The hospital covers nearly 200 000 m², built on a central structure with nine different units connected together with supply tunnels.

The University Hospital in Trondheim is the first university in Norway which completely integrates patient treatment, research and teaching, with the objective to set new standards in the Nordic healthcare sector.

During the planning phase, the hospital with 1000 beds recognized the importance of efficient logistics systems and understood them as preconditions to meet the future demands and challenges of the healthcare sector.

The integrated solution for hospitals: TranspoNet, TransCar and PillPick

Since 2001, Swisslog has been equipping St. Olavs with in-house logistics systems. The implementation of the Pneumatic Tube System was followed by the installation of the Automated Guided Vehicle System and the Automated Drug Management System.

The TranspoNet Pneumatic Tube System comprises 170 stations and over 10 000 m of tube. Every transport between care units, wards, laboratory, pharmacy and operation theatres is now possible by using carriers. With a payload up to 3 kg, carriers transport blood products, cytostatic drugs, instantaneous sections, samples and medications, relieving staff from time consuming portering activities and freeing up valuable time for patient care.

The TransCar Automated Guided Vehicle System implemented for the containerized transport of food and consumer goods takes also a significant role in the logistics of a running hospital. TransCar transports containers up to 500 kg completely automatically along pre-programmed routes and to a predetermined schedule.

The vehicles summon elevators and open doors by communicating over the wireless IP network. Lights turn off when no motion is detected and a unique laser navigation system enables the vehicles to identify obstacles. Storing products only at the point-of-use improves control and lower stock levels.

The PillPick Automated Drug Management System is the Swisslog pharmacy robot that automates the packaging, storage and dispensing of tablets, capsules, ampoules, vials, cups and syringes in unit doses. The system supplies more than 13 000 unit doses on daily basis. Over 10 000 of these unit doses will be tablets.

PillPick is equipped with the world unique PTP, the transfer unit that allows the automated loading of rings that carry the patient-specific, 24-hour medication orders into pneumatic tube carriers for delivery to wards. The barcoded therapy rings are transported by the Pneumatic Tube System directly to the ward, ensuring a fast and safe delivery of the medicine to the patient. In case of emergency the delivery is planned within 15 minutes from the order entry.

The possible **barcode verification** during administration of therapy is another step to improve patient safety and reduce medication errors. The cross-check of data (barcode on patient's armband and on the unit dose bag) allows to eliminate the possibility of error in the therapy administration.

PillPick reduces potential medication errors and cuts down on waste caused by out-of-date medicines. Moreover, it will reduce the work needed for handling medicines on the wards, thus allowing more time to concentrate on patient care.

With logistic automation, St. Olavs benefits not only in terms of quality, but also economically. Benefits can be summarized as follows:

- Optimization of logistics processes
- More employee and patient satisfaction due to reliable service and fast product handling
- Cost and time savings due to automation
- Staff relieved from portering activities have more time for patient care
- Reduction of potential medication errors and waste caused by out-of-date medicines

From a logistics perspective, the innovations at St. Olavs Hospital represent a state-of-the-art technology. Every logistics process has been optimized for quality and efficiency on behalf of the patient.

E-PRESCRIBING **IN THE ICU**

By Kathyrn Went, Shaun McLeod, Ian Ricketts, Kenny Scott

The healthcare sector is subject to great technological change in an effort to improve current practice and patient safety. While the use of information technology has been encouraged as a solution to improve patient safety and reduce medication errors, appropriate methods must be applied to the design and development of such systems to ensure they are usable. An interdisciplinary team, comprising experts both in interactive systems and healthcare design and consultant anaesthetists, nurses, and pharmacists, was formed and authentically participated in the design and development of an electronic prescribing and administration system tested in the ICU at Ninewells Hospital, Dundee.

Introduction

Information Technology has been encouraged as a solution to improve patient safety. However, there is a lack of evidence about the impact of information technology in the healthcare sector with many healthcare systems under evaluated. Although there is potential for the introduction of information technology to improve healthcare, badly designed systems can compromise patient safety. Usability problems have been found to frustrate end-users and have an adverse impact on patient care. The focus of this project was to facilitate safer medication prescribing within intensive care through the use of electronic systems, aiming to create a usable system, which reduces the likelihood of non-compliant prescriptions.

Interdisciplinary Working

There is often a tendency to work in parallel in multidisciplinary projects that link the computing and medical domains. To overcome the silo approach and to guarantee interdisciplinary collaboration, a project team was formed at the outset of the project, consisting of clinicians from Ninewells Hospital, Dundee and a group from the School of Computing, University of Dundee. Prior to forming the team, a lead clinician at Ninewells Hospital Intensive Care Unit (ICU) had identified a need for creating an electronic prescribing system and approached the University of Dundee about a possible collaboration. The involvement of the senior clinician facilitated the recruitment of clinicians to the project team.

The team comprised two consultants in anaesthesia and intensive care, the principal clinical pharmacist for critical care, the intensive care specialist liaison nurse, a nursing education specialist, a professor of interactive systems design, a professor of assistive systems and healthcare computing and a PhD student. Some of the individuals on the team changed during the three-year period but the professional composition was unaffected.

System Development

The multidisciplinary team was engaged and involved in the design and development of the prototype electronic prescribing and administration system. The interface was designed to actively enhance the compliance of medical prescribing, be highly usable and not have a negative impact on patient care.

The main advantage of the paper medication chart used in Ninewells ICU was its accessibility; it could be accessed by nurses, doctors and pharmacists and could be viewed by multiple users simultaneously. The electronic system needed to replicate this and also be portable to prevent restricting the normal interaction process that was observed with the paper system e.g. nurses taking the paper chart to the doctor if they had a query about a prescription or passing the chart between the team in the morning ward round. This led to the decision to use a tablet PC.

The system was designed as a client server application, allowing several client machines to be connected to the server, providing each patient with a tablet machine, a

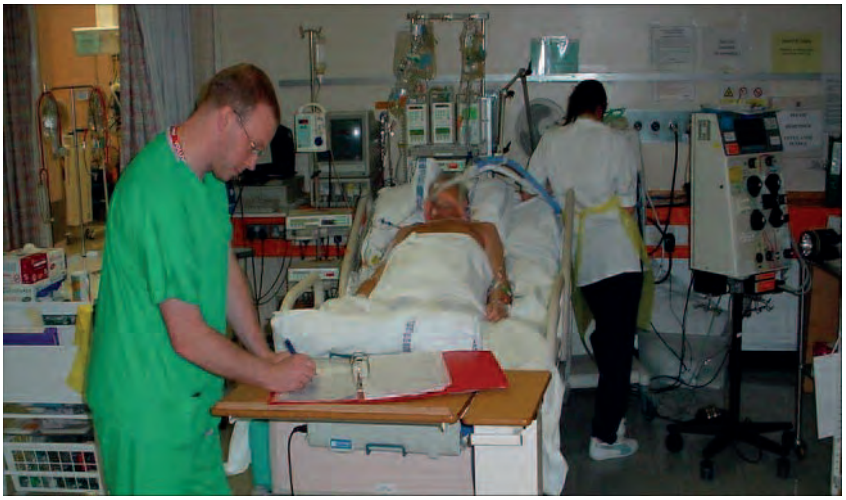

Figure 1. A typical bed space in the intensive care unit

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tablet stylus for input and an incorporated barcode scanner to allow users to log on to the system. The tablet PC could be mounted at the end of the patients' bed to provide easy viewing and be easily removed from the mount. It was roughly the same size as the paper chart. A rugged tablet PC was required to survive the intensive care environment, enduring extensive cleaning and being dropped. A tablet stylus was used for input instead of a keyboard for portability and to further reduce the risk of infection.

The electronic prescribing and administration system was intended to emulate the original paper medication chart with the additional functionality of confirming that medication had been administered (which was previously recorded on the paper Medicine Recording Sheet). The interface was organised into two sections, similar to the paper system, with the top section displaying regular prescriptions and the bottom section displaying the "once only" prescriptions. Within the regular prescription section three subsections displayed "discontinued", "current" and "future" prescriptions.

Within the regular prescriptions, continuous infusions were grouped together as a result of nursing staff feedback to make the administration process easier and to reflect the sequence for administering medication. The interface was designed to minimise free text input, to avoid frustration and save time entering text via an onscreen keyboard.

Evaluation

An evaluation of the electronic prescribing and administration system was conducted in a clinical setting over a sustained period to identify the extent to which:

1. The electronic prescribing and administration system had an effect on levels of non-compliant prescriptions prevalent in the ICU.
2. Users found the electronic prescribing and administration system usable.

The system was evaluated without the experimenter being present and over a prolonged period, to reduce the risk of any Hawthorne or novelty effects. The absence of the experimenter eliminated any pressure to use the system, indicative of the level of enthusiasm amongst users. The electronic prescribing and administration system was introduced into the ICU, Ninewells Hospital over a 5-month period (14th January – 5th June 2008), and tested on 16 patients. Paper and electronic prescription charts were run in parallel on the ward.

To measure the effectiveness of the electronic prescribing system, deviations made in the prescribing process were compared using the two different systems: The electronic prescription and administration system and the paper prescription chart, for 16 different patients over the five-month period. A retrospective review was conducted where both types of chart were checked against 15 standards for prescription compliance derived from the Safe and Secure Handling of Medicines Policy.

To evaluate the clinicians' perceptions of the electronic prescribing system, qualitative methods were used to collate feedback. From a total population of 62 clinicians who had used the system, a sample was interviewed, comprising nine doctors, ten nurses and a clinical pharmacist.

Evaluation Results

The electronic prescribing and administration system almost doubled the level of prescription compliance (from 46.73 percent with the paper system to 91.67 percent with the electronic) and significantly reduced prescribing deviations (from 51 to 8.5 percent).

The results of the interviews demonstrated that overall the electronic system was preferred.

"(I prefer the electronic system) because it's made life a bit easier from our point in administering drugs to be able to read straight away what's been happening". (Staff nurse)

"One thing is it's definitely safe, ... Patient safety - I think it's immensely improved and the other thing is it's very legible... and everybody can understand what's happening very clearly". (Specialist registrar)

The users' experience was on the whole positive. Generally they found the system intuitive, easy to learn and they were comfortable using it.

Conclusion

Previous studies have shown that inappropriate designs can lead to the introduction of errors or to systems, which are not viewed positively by the users. There was no evidence of these issues in the Ninewells study, demonstrating the importance of involving clinicians in the design and development of an electronic system to produce an effective and workable solution, in this case an interface that successfully improved the compliance of the medication prescribing process.

Figure 2. The electronic prescribing system

Future Work

The approach taken to create a usable electronic prescribing and administration system, that enhanced compliance with the medical prescribing process, may be capable of wider application in other healthcare application areas. Funding has been secured, in collaboration with NHS Tayside and Knowledge Transfer Partnership to take a user-centered approach to the design and development of an IT system in the surgical high dependency unit (SHDU). The system will enable real-time data to be entered on certain healthcare processes, the environment in which these processes are occurring, and the outcomes from these processes whilst providing real-time feedback on this information to enable early intervention if a problem is identified.

Authors:
Kathryn Went,
Ian Ricketts
University of Dundee
kwent@computing.dundee.ac.uk

Shaun McLeod,
Kenny Scott
Ninewells Hospital
NHS Tayside

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By having a proper baseline it is possible to focus the innovation effort onto where it can have a positive impact on the goals set by the organisation. The idea is to create a cover of data on the existing corporation. As a sort of navigation for the development of the "Nyt Hospital Bispebjerg", we have chosen an approach inspired by an American figure of evidence-based design (Figure 1). In order to do so, we have been – and will continue to be – forced to develop our own tools and methods. It is important now to express that we wish for more research and method development of innovation-creating processes for evidence-based design.

Working with pre- and post- occupancy data, the basis for decisions and designs is benefited and the future hospital's specifications and ways of measurement become apparent. This way we learn what can be expected of both the physical surroundings and how they collaborate with the rest of the corporation.

Room Analysis Shifts Priority

The coefficient of room utilisation has been recently analysed at both Frederiksberg Hospital and Bispebjerg Hospital, which is a good example of the positive influence of a detailed baseline. The two hospitals are to be merged in the new buildings upon completion, and the waiting rooms need to be optimised.

An obvious solution to this problem is to reduce the patients' time spent in waiting rooms. Optimising work processes in ambulatory care and more efficient continuity of care could do so. As part of in-house organisation and process innovations, the hospitals have chosen to establish a detailed baseline on the coefficient of utilisation of all waiting areas across the two hospitals.

This analysis showed that the waiting rooms capacity is only used to an average of seven percent, which indicates the potential merging of several smaller waiting areas into larger ones. The hospital does therefore not need – in this first phase – to examine the workflows of the staff.

Risk of Sub-Optimisation

If we had chosen to optimise the workflows from the very beginning, it would not have had an effect on the utilisation of the rooms. We would merely have transformed our less used waiting rooms into even more less used waiting rooms. Changing the workflows would naturally have shortened the individual patient's waiting time, but it would not have reduced the total area of waiting rooms.

Had we chosen the user-driven approach, the individual end-user would not have had an overview of available resources and possibilities within the hospital. The end-users will naturally have their starting point in their individual situations and will therefore not as easily reach solutions most optimal when assessing the hospital as a whole. As a hospital organisation, the challenge is to possess competences that allow one to view across the entire organisation. Another challenge is to possess enough leadership to be able to change a certain activity, if the solution is suboptimal.

Healing Architecture in a New Perspective

A detailed baseline makes it possible to ask the right questions about the end-user processes. A good example of this is "healing architecture" within the future hospital. The average patient stay in Denmark is 3.5 days (2009), which is expected to decrease additionally throughout the next ten years. We can therefore conclude that a large number of our patients will only be hospitalised for 24 hours.

The common perception of "healing architecture" focuses on light, colours, gardens and outdoor surroundings and the more emotional values for patients. Let's take a look at our everyday lives as an analogy to this: If we are asked how the hotel on our next trip should ideally be, we would often wish for a room with a lovely view and a nice restaurant. The problem is that if we do not know the baseline data for patient stay we cannot ask the right questions.

For instance, if our next trip was a one-day meeting in the centre of London with flights out the night before, our hotel requests might be completely different. Now we would want a location close to the airport and subway, wireless Internet access in the rooms and express checkout. For a patient hospitalised for 24 hours, he or she would perhaps prioritise the hospital designed to prevent accidents and the spread of infections rather than healing architecture.

Architecture for the Staff

Short patient stay periods imply that a differentiated approach to healing architecture is relevant. Danish public hospitals are social and close-knit workplaces; many permanent staff members have been educated at the very same hospital and have never worked anywhere else. Other staff members – often doctors – have worked at many hospitals. Significantly few members of the clinical staff have worked anywhere other than in public hospitals.

Facts therefore state that it is the staff who spend the most time within hospital architectures and so we might prioritise the prevention of work-related injuries, physical wear etc. These aspects could, if unattended to, make the almost permanent shortage of skilled employees even worse.

Appropriate use of Data

Knowing the existing business model in detail is therefore essential for setting proper goals and results for the construction project. The data should be accurate and relevant, and of both qualitative and quantitative form. However, not all data and topics are consistently relevant for a construction project. Figure 3 can be of some assistance. As shown in the figure, focus group interviews are for instance less relevant if the data are to be used to design visions and overall goals for the future hospital, but highly relevant for mapping the current situation.

Additional Sources of Innovation

Let us return to the topic of user-driven innovation. There is a growing need to focus on user-driven innovation methods in hospital construction projects. We are concerned by the fact that many user processes are initiated mainly for the sake of processes. It can be reasonable to do so regarding aspects as commitment, ownership and awareness. But the actual impact by which these processes co-create an optimal, future-proof construction

	Frederiksberg 2007	Bispebjerg 2007	Total 2007	Est. 2020
Beds	286	485	771	650 + 67 acute
Bed days	81,706	156,691	238,397	202,000
Surgeries	12,832	19,791	32,623	25,000
Ambulatory visits	111,669	255,190	366,859	369,000
Employees	1100	3000	4100	4000

Figure 2. Statistics for Frederiksberg and Bispebjerg Hospitals

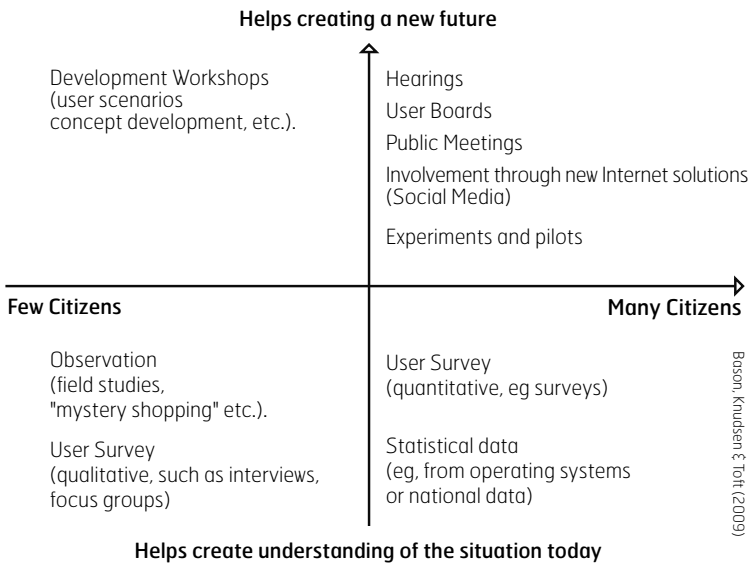

Figure 3. Methods and tools for welfare innovation

project is however limited. A central explanation is found in fundamental innovation theories and more research-based debates. Two essential aspects should be monitored closely when integrating user innovation into a hospital construction project.

Firstly: User-driven innovation is being used when you think you need innovation. But in reality, because of the market situation, it is not needed because of the already lucrative market.

Basically, the above states that innovation driven only by the users will only scratch the surface of possibilities for future-proof innovation. Classical user behavioural analyses are often overlooked, which incidentally could provide valuable insight (as per Figure 3), and thereby contribute to the understanding of both basic cultural phenomenon and mechanics within the hospital's complex systems.

Secondly: There are more sources to welfare innovation than user-driven innovation alone (Figure 4). Innovation today is often created due to research, technology, prices and economy. We should pay as much attention to other innovation sources as we do to user-driven innovations, and these should be monitored and integrated similarly. The most important aspect is, however, that all innovation sources should be combined into a logical and productive delta across the different phases of the construction project.

Figure 4. Sources of welfare innovation

User-Driven Innovation as Supplement to Data

It is however not the case that end-user processes focusing on today's reality cannot be of use. On the contrary, by initiating such end-user processes, today's current potential can be mapped and activated, and thereby the complex correlations of a modern hospital becomes clear. The challenge here is to act in the present, understand the context and thereby gain the inspiration to challenge current terms and conditions.

The data developed from the room analysis is a good example: By generating sufficient and valid data based on the current corporation, dilemmas worth analysis become apparent. The contribution of user-driven innovations to this case would therefore be to challenge both staff and patients to relate to new design concepts, to new work processes and to new service processes and how these can improve both the area usage and the sense of quality of stay in hospital waiting rooms. Perhaps the future waiting rooms are used for other purposes than merely waiting?

Eliminate Waiting Time

Innovation sources not presented to the end-users should be considered as well. Equipment innovations and IT innovations are obvious factors of optimising waiting room usage. Health research can furthermore contribute to the redesign of physical surroundings and "way of waiting". Could the term "waiting time" be eliminated from hospitals completely, as waiting time in future hospitals is spend on activities relevant to your condition or illness?

In short, user-driven innovation is often insufficient as the sole innovation source in designing a new hospital. Combining it with other sources of innovation will ensure a helicopter view of your hospital and facilitate the most appropriate redesign. As this article has illustrated, a detailed baseline provides all the information necessary for making the correct decisions and a construction project does not have to be in pipeline in order to benefit from knowing your hospital from inside out.

Authors:
Pernille Weiss Terkildsen
Nurse, M.Sc. Health, Master of Leadership and Innovation, and PhD fellow at AAU. Owner of ArchiMed (www.archimed.dk).

Claes Brylle Hallqvist
Master of Engineering and Master of Law. Senior Vice President of Bispbjerg Hospital (www.bispebjerghospital.dk) and responsible for the "Nyt Hospital Bispebjerg" construction project, which is to be completed in 10 to 12 years time.

Jonatan Schloss
Master in Political Science. Chief Executive Officer of Frederiksberg Hospital (www.frederiksberghospital.dk), which is to be merged with Bispebjerg Hospital as part of the new hospital construction.

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SIMULATION ANALYSES AND OPTIMISES **HEALTHCARE PERFORMANCE**

By David L. Morgareidge

The economic challenges besetting the healthcare industry in recent years has inspired architecture firms to find a way to use technology to help clients make objective, data-based decisions regarding new hospital and clinic projects. This service, called "Simulation," has proven effective in assessing the need for additions and renovations as well as helping plan new facilities. Using discrete event simulation software and statistical analysis tools, simulation teams can determine precisely the right blend of architectural space, medical equipment, IT and clinical communication technologies, staffing, and clinical processes that achieve each client's objectives. Evidence based architectural design applies of the science of analytics to all project decisions.

University Health Systems, San Antonio, Texas, is building a new 27,870 m^2 clinic in which three services were to be consolidated into 2,323 m^2. Physicians strongly believed that the chassis was undersized, so ultrasound technology was employed to tag and track all patients and staff to establish baseline current performance since process diagrams and EHR data were not available.

18 million data points gathered over six weeks enabled the hospital accurately define the duration of each patient type's visit. Simulation allayed physician fears and found that even under peak volume conditions, 25% of the 36 requested exam rooms were not required.

Figure 1. Conceptual Diagram of Patient and Staff Tracking System

Patient Bed Floor Example

For a new 100,000+ m^2 academic medical centre in the US, patient floor simulations were used to optimally locate nursing stations, equipment supply rooms, and clean supply/medication rooms, as well as analyse the benefits of decentralised nursing stations. These simulations incorporated 56 nursing processes, each containing 10-15 individual steps. Nurse Server (NS) deployment was also simulated. A NS is a small, decentralised "clean supply/medication room" in or near every patient room.

The effects on nurses, pharmacy techs, linen techs, and patient care supply techs were analysed to obtain a holistic understanding of the decrease in travel time and distance for the nurses and the increase for support technicians.

Traditional architectural design never operationalises clinical work and results in poorly targeted solutions.

The medication distribution model was hybridised such that pharmacy techs would deliver robot-packaged, patient-specific 24 hour supplies of non-narcotic medications only to the clean supply/medication rooms, and the nurse would deliver the medications from there to the NS. ROI calculations show annual savings of nearly 488,318 euro, or more properly evaluated, 21,960 additional hours of nursing care. The cost for this increase is only 60,737 euro per year, or 2.77 euro per gained nursing hour.

Hospital OR Example

Baylor Regional Medical Center in Plano, Texas, wanted to hire an existing orthopaedic practice that would increase the existing 12-room OR case volume by 1,800 cases annually, or 30 percent. After one architectural firm concluded that a 2-3 million euro capital expansion was needed to relocate the PACU and to build two new ORs, Baylor turned to simulation for alternatives.

The medical centre believe that simulation helped them make the right business decisions. Simulation detailed opportunities to convert a dedicated cysto room to a general purpose OR, to shift small cases from the four large rooms supporting ortho cases, to slightly adjust the schedules of eight smaller ORs and the four large ortho rooms. These steps eliminated the need for OR suite construction.

Functionally linked departments must be simulated together as a system. However, simulation of central sterile processing showed a bottleneck that would require additional capacity to resolve.

Conclusions

Simulation can save 10 to 30 times its fee in construction cost and/or operational expense. Client current state performance data often takes two to four times longer to gather than clients initially estimate. Full BIM integration will allow simulation to perform better with accelerated project delivery methods.

Author:
David L. Morgareidge
david.morgareidge@tx.rr.com

HOW TO CONDUCT **STAFF APPRAISALS**

A 12 Point Plan for Success

By Mathias Goyen

A staff appraisal is a periodical advisory and support discussion between staff members and management that fosters agreements about objectives and the achievement of targets, which can be incorporated into target agreements. This process provides the opportunity, in a systematic and structured way that is outside of every-day working routine, to discuss matters that support and advance target-oriented cooperation. A staff appraisal is conducted in confidence between the member of staff and the appropriate member of the management team, and is concluded consensually.

Both the staff appraisal and the following target agreement are recorded in a set of minutes. The first of these is confidential. The staff appraisal and target agreement may, if necessary (e.g. at large faculties, when there is a need for agreement for resource planning or an expressed desire), be conducted at two different times. Appraisals should be measurable, so that both you and your staff know when they have succeeded. In the aftermath, do not leave it for a year before discussing things again. You can have short, informal meetings every three months to catch up and identify any issues early. Prior to the formal appraisal, both parties should make preparations. The manager should look at objectives set during previous appraisals, while the employee should give due consideration to any points they want to bring up.

Performance appraisals are crucial for effective management and evaluation of staff. Appraisals help develop individuals, improve organisational performance, and feed into business planning. Formal performance appraisals are generally conducted annually for all staff in the organisation. Each staff member is appraised by his or her line manager. Directors are appraised by the CEO, who is appraised by the chairman or company owners, depending on the size and structure of the organisation.

Purpose of Performance Appraisals

Staff performance appraisals:

- Enable management and monitoring of standards, agreeing expectations and objectives, and delegation of responsibilities and tasks;
- Establish individual training needs and enable organisational training needs analysis and planning;
- Typically feed into organisational annual pay and grading reviews, which commonly coincides with business planning for the next trading year;
- Generally review each individual's performance against objectives and standards for the trading year, agreed at the previous appraisal meeting;
- Are also essential for career and succession planning - for individuals, crucial jobs, and for the organisation as a whole;
- Provide a formal, recorded, regular review of an individual's performance, and a plan for future development;
- Are important for staff motivation, attitude and behaviour development, communicating and aligning individual and organisational aims, and fostering positive relationships between management and staff; and
- Are therefore vital for managing the performance of people and organisations.

Are Performance Appraisals Still Beneficial Today?

There is a tendency in the present day to dismiss traditional processes such as performance appraisals as being irrelevant or unhelpful. Be very wary, however, if considering removing appraisals from your own organisational practices. People have less and less face-to-face time together these days. Performance appraisals offer a way to protect and manage these valuable face-to-face opportunities. There are various ways of conducting performance appraisals, and ideas change over time as to what the most effective appraisal methods and systems are. Some people advocate traditional appraisals and forms; others prefer 360 degree type appraisals; others suggest using little more than a blank sheet of paper.

In fact, performance appraisals of all types are effective if they are conducted properly, and better still if the appraisal process is clearly explained to and agreed by the people involved. Managers usually need guidance, training and encouragement in how to conduct appraisals properly. Help anxious managers develop and adapt appraisals methods that work for them. There are lots of ways to conduct appraisals, and particularly lots of ways to diffuse apprehension and fear - for managers and appraisees alike. Particularly, encourage people to sit down together and review informally and often - this removes much of the pressure for managers and appraisees at formal appraisal times.

Leaving everything to a single make-or-break discussion once a year is asking for trouble and trepidation. Performance ap-

praisals that are administered without training (for those who need it), without explanation or consultation, and conducted poorly will be counter-productive and are a waste of everyone's time. Well-prepared and well-conducted performance appraisals provide unique opportunities to help appraisees and managers improve and develop, and thereby the organisation for whom they work.

Creating an Effective Appraisal Process

1.Prepare
Prepare all materials, notes, agreed tasks and records of performance, achievements, incidents, reports etc. - anything pertaining to performance and achievement. Include the previous performance appraisal documents and a current job description. A good appraisal form will provide a natural order for proceedings, so use one. Organise your paperwork to reflect the order of the appraisal and write down the sequence of items to be covered. If the appraisal form includes a self-assessment section and/or feedback section, ensure this is passed to the appraisee in advance with relevant guidance for completion.

2. Inform
Inform the appraisee - ensure the appraisee is informed of a suitable time and place, and clarify purpose and type of appraisal - give the appraisee the chance to assemble data and relevant performance and achievement records and materials. If the appraisal form does not imply a natural order for the discussion then provide an agenda of items to be covered.

3. Venue
Ensure that a suitable venue is planned and available, private and free from interruptions. Observe the same rules as with recruitment interviewing - avoid hotel lobbies, public lounges, canteens. Privacy is absolutely essential.

4. Layout
Room layout and seating are important elements to prepare. Layout has a huge influence on atmosphere and mood. Irrespective of content, the atmosphere and mood must be relaxed and informal. Remove barriers - don't sit in the boss's chair with the other person positioned humbly on the other side of the desk; you must create a relaxed situation, preferably at a meeting table or in easy chairs. Sit at an angle to each other, 90 degrees ideally - avoid face to face, it's confrontational.

6. Opening the appraisal
It is important to relax the appraisee. Open with a positive statement, smile, be warm and friendly - the appraisee may well be terrified; it's your responsibility to create a calm and non-threatening atmosphere. Set the scene. Simply explain what will happen. Encourage a discussion and as much input as possible from the appraisee - tell them it's their meeting not yours. Confirm the timings, especially finishing time. If helpful and appropriate begin with some general discussion about how things have been going, but avoid getting into specifics, which are covered next. Ask if there are any additional points to cover and note them down so as to include them when appropriate.

7. Review and measure
Review the activities, tasks, objectives and achievements one by one, keeping to distinct separate items one by one - avoid going off on tangents or vague unspecific views. Concentrate on hard facts and figures, solid evidence - avoid conjecture, anecdotal or non-specific opinions, especially about the appraisee. Being objective is one of the greatest challenges for the appraiser - as with interviewing, resist judging the appraisee in your own image, according to your own style and approach - facts and figures are the acid test and provide a good neutral basis for the discussion, free of bias and personal views. For each item agree a measure of competence or achievement as relevant, and according to whatever measure or scoring system is built into the appraisal system.

8. Agree an action plan
An overall action plan should be agreed on with the appraisee that takes account of the job responsibilities, the appraisee's career aspirations, the department and organisation's priorities, and the reviewed strengths and weaknesses. The plan can be staged if necessary with short, medium and long-term aspects, but importantly it must be agreed and realistic.

9. Agree necessary support
This is the support required for the appraisee to achieve the objectives, and can include training of various sorts. Be careful to avoid committing to training expenditure before suitable approval, permission or availability has been confirmed - if necessary discuss likely training requirements with the relevant authority before the appraisal.

10. Invite any other points or questions
Make sure you capture any other concerns.

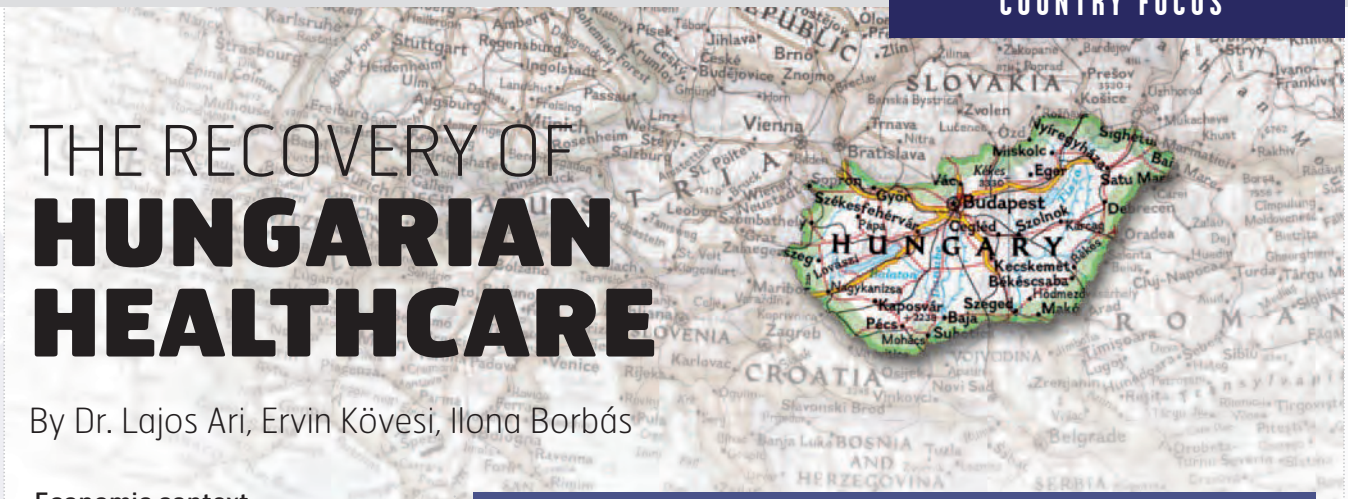
11. Close positively
Thank the appraisee for their contribution to the meeting and their effort through the year, and commit to helping in any way you can. Produce a meeting note or completed summary. Provide two copies of the meeting note or completed summary and ask the appraisee to sign and return one copy to you if they are in agreement that it accurately reflects what was discussed and agreed.

12. Record main points, agreed actions and follow-up
Swiftly follow up the meeting with all necessary copies and confirmations, and ensure documents are filed and copied to relevant departments, (HR, and your own line manager typically). Make yourself available to discuss concerns that the appraisee might have about the meeting note. It could be that you have misinterpreted something or incorrectly recorded it.

360-Degree Feedback

360 degree appraisals are a powerful developmental method and quite different to traditional manager-subordinate appraisals (which fulfill different purposes). As such, a 360 degree process does not replace the traditional one-to-one process - it augments it, and can be used as a stand-alone development method. 360 degree appraisals involve the appraisee receiving feedback from people (named or anonymous) whose views are considered helpful and relevant. 360 degree respondents can be the appraisee's peers, up-line managers/execs, subordinate staff, team members, other staff, customers, suppliers - anyone who comes into contact with the appraisee and has opinions/views/reactions of and to the appraisee. Numerous systems and providers are available. The feedback is typically provided on a form showing job skills/abilities/attitudinal/behavioural criteria and some sort of scoring or value judgement system. The appraisee should also assess themselves using the same feedback instrument or form.

Author:
Mathias Goyen
UKE Consult und Management GmbH
Hamburg, Germany
goyen@uke.de



THE RECOVERY OF HUNGARIAN HEALTHCARE

By Dr. Lajos Ari, Ervin Kövesi, Ilona Borbás

Economic context

After election victory in the spring of 2010, the Orbán administration took over the governance of Hungary in adverse circumstances. The economic crisis in the world had only slightly abated and the economy of the European Union was also hit hard, shown in bad economic indicators of some euro zone countries. Naturally, Hungary could not be exempt from outside influences and strict measures had to be taken to meet the convergence conditions necessary for joining the euro zone in the future.

The planned budget deficit in 2010 was 3.8 percent and in 2011 it is 3.0 percent. This must be achieved in an economy that is still stagnant and starts to grow very slowly, and unemployment is relatively high. Despite all this, Hungary is in a favourable economic situation compared to several euro zone countries.

The healthcare system cannot be independent of the economic situation. All actors of healthcare feel that the time is ripe for a thorough reconstruction of the system, while keeping basic values preserved. Such basic values are solidarity and autonomy.

Demography and Health Status

We would like to introduce the healthcare situation of Hungary with some data and indicators. One significant problem in the country is the decline of the population, as a consequence of an excess of the number of deaths compared to the number of births. Natural decrease of the population was between 3-4 per thousand inhabitants per year in the last decade. The population is ageing – the proportion of inhabitants aged 65 years and over was 16.5 percent in 2010.

Despite improving tendency compared to the European Union average, life expectancy of the population at birth is still low: In 2009 it was 70.05 for men and 77.89 for women (8 and 5.6 years below EU average).

	2009	2010
Population (at the beginning of the period)	10 031 000	10 014 000
GDP volume index (% change from previous year)	-6.7	0.9 (Q1-Q3)
Per capita GDP (Purchasing Power Standard)	15 300	15 800 f
Unemployment rate, %	10	10.7 (September - November)
Consumer price index (% change from previous year)	4.2	4.9
General government balance (% of GDP)	-4.4	-3.8 f

Unfortunately, with some diseases – neoplasms, diseases of the circulatory system, external causes, suicide – the number of potential years of life lost is quite high.

The functioning of the healthcare system is further aggravated by the ageing of health workers. Fewer and fewer people choose healthcare as a vocation, which is especially true for nursing professionals. Brain drain - particularly the migration of young doctors - is a problem to be addressed by all means. Problems to be solved are the financing situation of healthcare institutions, the elimination of debts, and on longer term the incorporation of depreciation in the financial system. Territorial inequalities in care must also be remedied.

After the general elections, the new government policy established a new system of administration. The sectors that involve human resources are concentrated in one de-

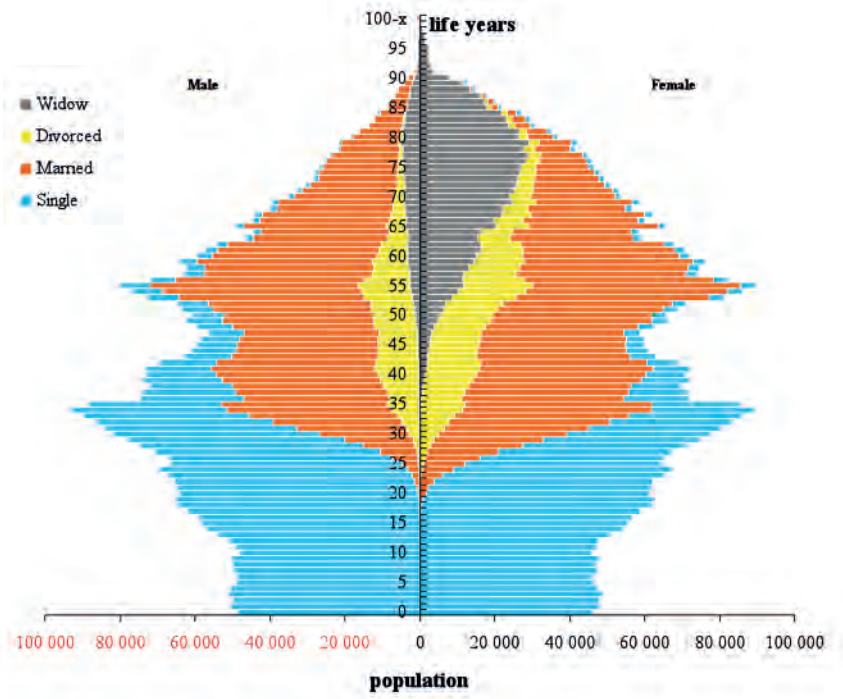


Figure 1. Population by sex, age marital status, 1 January 2010

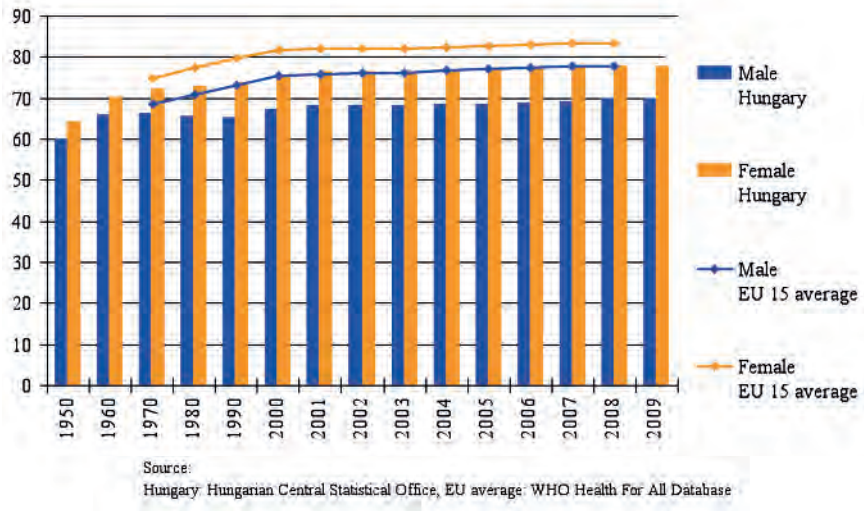


Figure 2. Life expectancy at birth by sex, 1950–2009

partment, the Ministry of National Resources led by professor Miklós Réthelyi. This ministry integrates the governance of healthcare, social affairs, culture, education and sport, each with a state secretariat. The head of the Secretariat of State for Healthcare is Miklós Szócska, who is at the same time the director of the Health Services Management Training Centre at Semmelweis University.

It is expected that with the new structure the state secretariats will become a united force for better utilising resources instead of competing with one another. One example of this effort may be the harmonisation of the activity of services that operate on the border of health and social care.

The Healthcare Delivery System

Primary care in Hungary is based on private GPs (who people can freely chose) and a well-developed district nursing system. GPs work in solo practice, the premises are principally public. In 2009, there were altogether 6,752 GP services in the country. One GP or pediatric GP covers about 1,500 inhabitants.

Outpatient specialist services are mostly provided by polyclinics, mainly owned by local governments, though CT-MRI, dialysis and home care have significant share of private ownership. In 2009, the number of outpatient care institutes was 419.

In 2010, 177 publicly financed institutions were in operation in inpatient care. Of these institutions 142 had acute care or acute and long-term care, and 35 had only long-term or rehabilitation care. The total number of operating hospital beds in 2009 was 70,992 or 707 per 100 thousand population.

Local governments are the main owners of hospitals owning 66 percent of the institutions. This rate is 72 percent in acute care institutions and 40 percent in institutions providing only long-term care. The majority of institutions (57 percent) providing only long-term care are owned by churches or foundations, generally they are facilities with a small number of beds. On the basis of acute and long-term bed numbers, public or local government ownership is predominant (97 percent).

In the first half of 2010, more than half of inpatient care institutions (55 percent) operated as public institutions. The proportion of public institutions owned by local governments tends to decrease, and more and more of them are transformed into commercial companies, mostly non-profit limited liability companies with local government ownership. In 2010, nearly one third of local government-owned institutions operated as commercial companies.

Health System Financing

The total expenditure on health was 7.3 percent of gross domestic product in 2008. 71 percent of the expenditure was public and 29 percent was private. Private health expenditure is dominated by out-of-pocket payments (for prescribed and over-the-counter medicines, medical devices, informal payment, etc).

The sources of public health expenditure are mainly health insurance contributions, normative funding from the central budget to the Health Insurance Fund (HIF) – chiefly for pensioners and the young – and local taxes. In 2010, the share of contributions and central government expenditures in the national pool, the Health Insurance Fund was 50 percent and 45 percent, respectively. In 2010, the Health Insurance Fund with a revenue of HUF 1385 billion closed the year with the expenditure of HUF 1477 billion, thus with a deficit of HUF 92 billion. Little over four-fifths of its expenditure (82 percent) was allocated to the cost of in-kind benefits of health insurance (54 percent of the expenditure were allocated to curative-preventive services, 24 percent to pharmaceutical costs) and 15 percent to cash benefits.

The operational expenditures of healthcare providers are covered by health insurance on a contractual basis with the National Health Insurance Fund Administration. GPs are financed mainly by capitation. There is an additional fixed payment for GPs, depending on the location of practices and on the size of the district (where the practice is). Payment incentives for GPs has been introduced in 2010 based on clinical quality indicators. Outpatient clinics are reimbursed by a German-type point system, acute inpatient providers receive DRG payments, while long-term care is financed on a weighted day basis. From 2004, performance volume limit controlled costs in inpatient and outpatient care, it was tightened in 2006 and loosened again in 2010. Depreciation and investment costs are financed by owners and by EU funds.

Current and Future Developments

The newly formed Secretariat of State for Healthcare launched into vigorous action and its activity is characterised by an effort to reconcile interests and seek compromise. Among its measures it can be emphasised that at the end of 2010 the health sector received significant surplus funds and their distribution had taken place by means of harmonisation with legitimate interest groups. These surplus funds allowed for the reduction of accumulated debts and the relief of health policy tensions.

The new government aims to reach the EU average in public health expenditure, reduce the proportion of private health expenditure, and rearrange its structure.

The formulation of the career path model of health workers was also launched. There are serious professional discussions taking place with resident doctors about their future. The system of membership in medical associations has been newly regulated. Membership in the Hungarian Medical Chamber, as well as in all other cham-

bers of health professionals will be mandatory again (it was abolished in 2007). The tasks, structure and the funding of investment costs of new healthcare institutions constructed from EU resources have been reconsidered.

The legal situation concerning pharmaceutical policy and drug prescription has been modified. Up until 2010, physicians whose prescription practice widely differed from the average were obliged to follow a special training on the subject. From 2011 on, penalties will be replaced by rewards, and physicians who keep in sight efficiency in the use of the pharmaceutical fund will be rewarded by the Health Insurance Fund.

There was a change in the system of supervision of providers. The structure of public administration meshes with the system of government offices established on 1 January 2011. The government offices – in Budapest and in the 19 counties – integrate territorially organised administration authorities, among them the Regional Health Insurance Institutions and the regional institutions of the National Public Health and Medical Officer Service. The newly opened 29 customer service bureaus of the government offices are the first step to a single-window administration system for official issues related to the state. Parallel to this, the New Széchenyi Plan was worked out, which will hopefully stimulate the economy of the whole country. One important chapter of the plan is called Recovering Hungary, which at last recognises the importance of the healthcare industry and will hopefully give momentum to health and medical tourism.

The main elements of the sectoral strategy are drafted in the discussion paper "Revived healthcare, recovering Hungary – Semmelweis Plan to save healthcare". According to the plan, among other things, the vertical and horizontal integration of the work of healthcare institutions will start and in a short time patient pathways will be reregulated. The whole process of restructuring is governed by two guiding principles: The solidarity principle is to be preserved and the savings made in the system should stay within healthcare. It is also an important principle that no healthcare institution will be terminated, at most its function will change. The basis of the organisation of healthcare services will be the "supraterritorial" level, which is larger than the county, but smaller than the region.

The government makes efforts to ameliorate psychiatric care, which became worse after the closing of the National Institute of Psychiatry and Neurology in 2007. In the near future a new institution will be opened. The health policy leaders are negotiating with the professional leaders of psychiatry, addictology, neurology on the profile of a new national institute.

The workers of healthcare institutions support the government's endeavour for change in the hope that a new healthcare system will come about that meets the expectation of 21st century Europe and will be trusted by everyone.

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Authors:
Dr. Lajos Ari
Economic Director of the National Institute of Medical Rehabilitation, Budapest, Hungary
Chairman of the Hungarian Association of the Economic Managers of Health
arilajos@rehabint.hu

Ervin Kövesi
Hungarian Association of the Economic Managers of Health

Ilona Borbás
National Institute for Strategic Health Research, Budapest, Hungary
ilona.borbas@eski.hu

The Hungarian Association of Hospital Managers - *By Dr. Lajos Ari*

The Professional Association of Hospital Managers (Egészségügyi Gazdasági Vezetök Egyesülete – EGVE) was founded just before the political change in Hungary.

The foundation of the association was initiated by a group of colleagues, who had some experience from the "east", and supported by some prominent leaders of the former Ministry of Health. The association is widely free of politics, dealing exclusively with health policy.

The statutory duties of the association are:

- Professional representation of the interests of Hungarian hospital managers;
- Appraisal of legal rules;
- Participation in Court;
- Collection and manipulation of data;
- Education;
- Organisation of conferences and exhibitions; and
- Networking (public relations) with national and international partner organisations.

Our association was able to quickly develop the contact with the European Association of Hospital Managers, especially thanks to the "diplomat" of our association, Erwin Kövesi, first chairman György Tarján and Dr. Lajos Ari.

After successful cooperation with our Austrian and German colleagues, we were able to introduce ourselves to the Executive Board and committee at the General Assembly of the European Association in Iceland.

Thanks to the generous support of the then president, Theo van Zanden, a great and true European, our association was accepted as a full member of the European association.

Due to socio-economic upheavals in the past 20 years we were obliged to reorganise our association to support the newly structured Hungarian healthcare system. This is as well what our members, more than 400 people, expect from us.

The activities of the association now focus more on our members, and we have set up seven regional organisations to which the management has been decentralised. Our trade journal, "Medizin-Ökonomische Rundschau" (The Medical and Financial Journal), has been in existence for more than 40 years now and to keep our members informed we also publish a newsletter six times per year.

Another way of reorganisation is the closer integration with the social care system and the integration of both technical professionals working in the healthcare sector and of our young colleagues.

Aside from these recent developments and process of reorganisation within the association, two aspects have remained constant: We keep our policy of remaining free from politics and we are still active in organising conferences. This year, we will arrange the Hungarian Health Day for the 18th time, one of the biggest interdisciplinary events - if not the biggest - in Hungary that is connected to a large-scale exhibition.

www.egve.hu

Nikolaus Koller

UNE ANNÉE DE CHANGEMENTS

L'année 2011 se présente comme une année de changements. Deux méritent une place dans cet éditorial.

Après plusieurs années d'exclusion des soins de santé de la directive sur les services généraux, le Parlement européen a voté le 19 janvier dernier en faveur de la directive européenne sur les droits des patients concernant les prestations de soins de santé transfrontaliers. Cette directive est une étape très importante dans l'alignement de la jurisprudence de la Cour de justice européenne sur les soins transfrontaliers (Kohll & Decker, et al.) et dans la mise en place d'un cadre juridique pour les patients qui souhaitent franchir les frontières pour bénéficier de soins.

Cela permettra de clarifier les droits des patients et de mettre en place un mécanisme permettant d'éviter, autant que possible, que les patients aient à s'acquitter par avance du paiement pour les soins de santé transnationaux reçus. En principe, aucune autorisation préalable de l'État d'origine n'est nécessaire pour le remboursement. Pourtant, les États membres peuvent exiger une autorisation préalable dans certains cas particuliers. Pour éviter le « tourisme de santé », les patients seront uniquement remboursés au taux de leur pays d'origine. Ils devront posséder une copie de leur dossier médical.

La création d'un point de contact a été prévue dans chaque État membre. Ensemble ils formeront un réseau de référence européen capable de fournir des informations pratiques aux patients sur les conditions et les niveaux de remboursement, les traitements envisageables, les prestataires, les procédures de recours. Les patients auront ainsi une idée plus claire de la qualité et de la sécurité des soins de santé dispensés à l'étranger, ce qui les aidera à prendre des décisions plus éclairées concernant les soins de santé transfrontaliers. Cette directive soutient également le développement de « réseaux de référence européens » réunissant sur une base volontaire des centres spécialisés d'expertise déjà reconnus en Europe. En outre, la mise en place d'un réseau de volontaires assurant la connexion avec les autorités nationales chargées de l'e-santé est inclue dans la présente directive, ainsi que celle d'un réseau similaire dans le domaine de l'HTA (High Tech Assessment).

Les États membres ont trente mois pour intégrer ces mesures dans leur législation. Il y a encore des questions à débattre comme par exemple le principe d'autorisation préalable, la coopération en matière d'e-santé et d'HTA. Cette directive aura un impact non seulement sur les patients, les professionnels de la santé et les systèmes de santé mais aussi sur nous, les responsables de santé. Notre sous-comité aux affaires européennes suivra ce sujet. Il accueille le point de vue et la contribution de ses collègues en Europe. (E)Hospital vous en parlera dans les prochains numéros.

Et voici le deuxième point dont je voulais vous faire part. Comme nous l'avons déjà annoncé, un nouveau comité de rédaction a été mis en place depuis la dernière Assemblée générale. J'ai l'honneur de succéder à M. Heinz Kölking en tant que président du comité de rédaction. Ses membres vont travailler ensemble pour veiller à ce que les derniers développements et les questions importantes pour les directeurs d'hôpitaux européens soient abordés dans le journal et répondent aux nouveaux objectifs de l'AEDH.

Je voudrais également saisir cette occasion pour inviter nos lecteurs ainsi que les membres de nos organisations nationales à nous soumettre des sujets, des news ou des thèmes à aborder. Ils peuvent s'adresser à notre directrice de la rédaction ou au rédacteur en chef. Nous serons heureux de connaître vos idées et vos intérêts et de les étudier dans les prochains numéros.

Le dossier de ce numéro porte sur les questions juridiques dans les hôpitaux d'aujourd'hui. Parmi les autres articles, l'un porte sur l'application d'un nouveau concept au Danemark et à l'occasion de la présidence hongroise du Conseil de l'Union européenne, notre « country focus » s'intéresse à la Hongrie. Vous trouverez également dans ce numéro une section spéciale pharmacie pour vous informer des dernières tendances de la pharmacie hospitalière.

Nous espérons que vous en apprécierez la lecture.

Nikolaus Koller
Président du comité de rédaction

Les éditoriaux d'*(E)Hospital* sont rédigés par des membres des instances dirigeantes de l'AEDH. Les contributions publiées ici ne reflètent cependant que l'opinion de leur auteur et ne représentent en aucune façon la position officielle de l'AEDH.

UNE INITIATIVE DU « WORLD HEALTH PARTNERS » A GAGNÉ LE PREMIER PRIX DU IT @ NETWORKING 2011

Prachi Shukla de « World Health Partners », en Inde, a fait face à une forte concurrence avant de remporter le très convoité Trophée « IT @ 2011 » et un prix de 5 000 euros au IT @ NETWORKING Awards 2011.

La solution gagnante, « Healthcare for the Rural Poor », pour des soins de santé destinés aux pauvres résidant en milieu rural, combine la technologie avec l'activité de chefs d'entreprise du village agissant comme intermédiaires pour établir un lien entre les communautés rurales et des médecins de ville qualifiés. Grâce à des diagnostics médicaux à distance utilisant un logiciel de conférence audio et vidéo, ce projet permet aux patients résidant en milieu rural d'accéder à des soins de santé efficaces et spécialisés.

La deuxième place a été attribuée à « Clinical Workstation, the GPS of Every Medical User », présenté par Rudi Van de Velde.

La troisième place revient à « From 'Micro-' Towards 'Macro-' Mobility. Building Efficient Clinical Processes by Using a Hospital-Wide, Standardised and 'Near-' Patient Communication Platform », présenté par Carl Dujat.

L'AEDH était fier de collaborer avec HITM (l'Association européenne des systèmes d'information en santé) pour cette compétition de deux jours qui a rassemblé des innovateurs dans l'informatique des soins de santé au Théâtre du Vaudeville à Bruxelles (Belgique). Excellente occasion de s'instruire, cet événement original favorisait les discussions ouvertes entre des concurrents venant de l'Europe entière et bien au-delà. Les intervenants nous ont fait part de leur succès, mais aussi des obstacles qu'ils avaient pu rencontrer.

Willy Heuschen, secrétaire général de l'AEDH, était présent pour l'ouverture officielle de l'événement et l'accueil des candidats et des délégués. M. Heuschen a souligné l'importance croissante et la pertinence de l'informatique des soins de santé ainsi que la grande opportunité qu'est le IT @ NETWORKING Awards pour les responsables : ils ont l'occasion d'apprendre grâce aux solutions proposées, d'être en contact avec leurs concepteurs et utilisateurs, de pouvoir poser des questions et de juger eux-mêmes les projets.

La compétition se compose de deux séries de présentations. Le premier jour, les vingt candidats ont occupé la scène de leurs « MindByte presentations » (cinq minutes). Après chaque présentation, le public et le jury d'experts avaient l'opportunité de poser des questions avant le vote. Les neuf meilleurs projets du premier jour ont pu effectuer une deuxième présentation, la « Work-Bench presentation ». Chaque finaliste avait trente minutes pour présenter son projet en détail et pour prouver qu'il méritait de gagner, suivies par une session de questions-réponses de quinze minutes avant le vote. Deux journées animées, public et jury d'experts ayant interrogé abondamment chaque candidat avant de se prononcer.

Pour plus d'informations, vous pouvez visiter le site : **www.itandnetworking.org**

À LA MÉMOIRE D'ASGER HANSEN

Après une longue lutte contre le cancer, Asger Hansen est décédé le 14 Janvier 2011. Asger Hansen restera certainement dans nos mémoires comme l'une des plus grandes personnalités au sein de l'AEDH. Son enthousiasme et son dévouement à l'association ne se sont jamais démentis. En reconnaissance à son rôle actif dans l'association, Asger était devenu membre honoraire de l'AEDH au congrès 2010 de Zurich.

Depuis 25 ans, il représentait l'Association danoise des directeurs d'hôpitaux au sein du Conseil d'administration. Membre du Bureau, il a été vice-président, puis, de 1998 à 2002, président de l'AEDH. En tant que président, il a supervisé plusieurs changements importants dans la structure de l'association. C'est au cours de son mandat que le secrétariat général bruxellois et les sous-comités ont été créés. Président du comité scientifique depuis sa création, Asger l'a guidé grâce à son expérience professionnelle en tant que directeur de l'Université de Copenhague à Gentofte.

L'AEDH tient à exprimer ses plus sincères condoléances à son épouse Conny, à sa famille, ses collègues et amis.

Interview du Dr Marzi, Hôpital général de Vienne

M. Marzi, directeur du service juridique de l'Hôpital général de Vienne, nous a accordé du temps pour parler des questions juridiques auxquelles font face nos hôpitaux actuellement. Selon lui, les principales questions juridiques sont en perpétuelle évolution et il est indispensable d'avoir une vision d'avenir des tendances avant qu'elles n'influencent notre vie quotidienne. Pour le Dr Marzi, la protection des données et la gestion des risques sont essentielles : « les hôpitaux seront toujours des lieux à risque, mais de nombreux dangers peuvent être aisément diminués en prenant conscience de leur existence. Je pense qu'il est faux de parler de la sécurité des patients si nous oublions celle du personnel hospitalier. Donc, je préfère parler de la « sécurité hospitalière » qui comprend toutes les personnes travaillant à l'hôpital depuis de nombreuses années. Nous pouvons apprendre beaucoup de l'industrie aéronautique : les passagers sont en sécurité parce qu'une équipe qualifiée travaille pour eux. »

Legal Emergency Kit : le « kit juridique d'urgence »

Par Leopold-Michael Marzi

En 2007, le « kit juridique d'urgence » a été introduit à l'Hôpital général de Vienne après avoir été mis au point par le département juridique et la compagnie d'assurance responsabilité civile hospitalière. Contenu dans un très pratique boîtier en plastique étiqueté, chaque employé doit être en mesure d'accéder à la trousse en moins d'une minute depuis son poste de travail. Le kit contient des manuels sur le comportement correct à adopter en cas de dommages (notification des supérieurs et du service juridique, établissement de la communication avec le patient accidenté, etc.) ainsi que des formulaires de déclaration, des informations générales importantes sur l'assurance responsabilité civile hospitalière et le livre « La question juridique dans la vie quotidienne des hôpitaux ».

La trousse d'urgence juridique n'est qu'un des éléments qui a contribué à la réduction des cas de demandes d'indemnisation dans l'Hôpital général de Vienne. Les formations de l'équipe sur la base de cas réels sont tout aussi importantes pour les employés que l'enseignement de connaissances juridiques spécifiques à chaque discipline. Cependant, le succès ne peut être durable que si les efforts sont persistants et si tous les participants continuent leur travail de consolidation de l'enseignement reçu.

Les défis éthiques et juridiques de l'e-santé

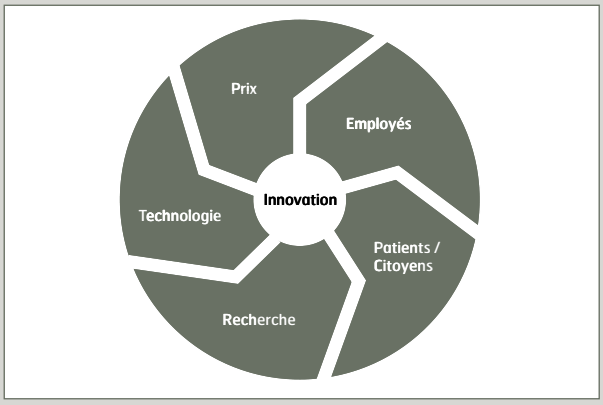
Par Eike-Henner W. Kluge

L'e-santé est une modalité des soins de santé techniquement complexe qui est conçue non seulement pour fournir des soins continus dans les lieux où ils n'étaient pas envisageables auparavant, mais aussi pour fournir ces soins d'une manière qualitativement irréprochable et à un coût raisonnable, ce pour une grande variété de pathologies. Cependant, comme toute nouvelle modalité, l'e-santé pose des problèmes qui ne sont pas simplement de nature technique. Ils comprennent d'une part des interrogations relatives aux valeurs qui tiennent à la nature même des soins de santé, à la nature de la relation patient-soignant, aux rôle et responsabilités des professionnels en informatique, et d'autres part des questions comme celles relatives au consentement éclairé, à la confidentialité et à la responsabilité.

L'utilisation de l'innovation pour optimiser les modèles économiques à l'hôpital

Par Pernille Weiss Terkildsen, Claes Brylle Hallqvist, Jonatan Schloss

Actuellement dans la phase initiale du projet de construction d'un hôpital nommé « Nyt Hospital Bispebjerg », les auteurs présentent comment différentes innovations - coordonnées grâce à une base de données de référence détaillée et fondée sur les preuves - peuvent garantir que les investissements en actifs lourds aient également pour corollaire un modèle économique optimisé de façon opérationnelle. Si l'on possède une base de données exacte et appropriée, il est possible de faire porter les efforts d'innovation à l'endroit exact où ils peuvent avoir un impact positif en regard des objectifs qui ont été fixés par l'organisation.



On donne de plus en plus souvent une grande ampleur aux innovations centrées sur l'utilisateur, mais on constate aussi des résultats à sens unique. Actuellement, l'innovation est souvent le fruit de la recherche, de la technologie, de l'analyse des prix et de l'économie. Nous devrions accorder exactement la même attention aux autres aspects de l'innovation qu'à l'innovation

centrée sur l'utilisateur, et celles-ci devraient être examinées et intégrées de manière similaire. L'aspect le plus important est, cependant, que tous les aspects innovants soient combinés tour à tour, de façon logique et productive, tout au long des différentes phases du projet de construction.

Comment effectuer les évaluations du personnel

Par Mathias Goyen

Les évaluations du rendement sont essentielles pour une gestion efficace et l'évaluation du personnel. Les évaluations concourent au développement des individus, améliorent la performance organisationnelle, et alimentent la planification des activités. Des évaluations de rendement officielles sont généralement organisées chaque année pour tout le personnel. De nos jours, alors qu'on a de moins en moins de temps pour les entrevues, les évaluations du rendement constituent un moyen de protéger et de gérer ces précieuses occasions de rencontre.

Le Dr Goyen estime qu'il y a douze aspects essentiels pour une évaluation du personnel efficace :

- La préparer ;
- Informer la personne ;
- Le lieu ;
- La présentation ;
- Le début de l'évaluation ;
- L'examen et l'évaluation de l'activité ;
- Convenir d'un plan d'action ;
- Accepter le soutien nécessaire ;
- L'inviter à évoquer tous les autres points ;
- Clôturer de façon positive ;
- Garder une trace des points principaux, de l'action et du suivi dont il a été convenu.

Les questions économiques dans la thérapie du cancer du sein

Par Athanasios G. Pallis, Nikolaos Maniadakis

Le cancer du sein représente la forme la plus courante de cancer chez la femme dans le monde. Malgré les développements récents, son incidence reste élevée et le cancer du sein est une charge épidémiologique et économique. Il existe de nos jours de nombreuses thérapies alternatives pour la gestion de la maladie, chacune étant associée à différents profils économiques, d'efficacité et de sécurité. Compte tenu du fait que les ressources sont rares, elles doivent être investies dans les options qui maximisent les résultats en terme d'amélioration de la santé.

Il a été constaté que les traitements sont en général rentables, dans différents cadres et pays, avec de meilleurs rapports coût-efficacité correspondant au nombre de thérapies supplémentaires remboursées, avec seulement une seule exception. Ces analyses pharmaco-économiques sont utiles pour les décideurs et les gestionnaires, elles facilitent la prise de décision et l'optimisation de l'utilisation des ressources de santé allouées au traitement du cancer et au soin des patientes.

L'e-prescription en réanimation

Kathyrn Went, Shaun McLeod, Ian Ricketts, Kenny Scott

Le secteur de la santé est soumis à une importante évolution technologique afin d'améliorer les pratiques actuelles et la sécurité des patients. Bien que l'utilisation des technologies de l'information ait été encouragée pour améliorer la sécurité des patients et en particulier réduire les erreurs de médication, des méthodes appropriées doivent être appliquées à la conception et au développement de ces systèmes afin de s'assurer qu'ils sont utilisables.

Une équipe interdisciplinaire composée d'experts à la fois dans les systèmes interactifs et dans la conception informatique des soins de santé, des anesthésistes, des infirmières et des pharmaciens, a été formée et a participé à la conception et au développement d'un système de prescription électronique et d'information administratif. Le soutien de la participation véritable des usagers a permis de donner le jour à une solution que les utilisateurs ont soutenue au quotidien. Non contente d'être préférée par les utilisateurs, son niveau global de conformité aux normes de prescription nationalement reconnues était significativement plus élevé avec le système électronique qu'avec le système papier (91,67 % comparativement au système papier qui n'atteignait que 46,73 %).

Le rétablissement des soins de santé hongrois

Par Lajos Ari, Ervin Kövesi, Ilona Borbás

À sa victoire électorale au printemps 2010, le nouveau gouvernement d'Orbán a trouvé la Hongrie dans une situation économiques difficile qui n'a pas épargné le système de santé. Tous les acteurs des soins de santé estiment qu'il est maintenant temps d'effectuer une refonte complète du système, tout en préservant ses valeurs fondamentales, la solidarité et l'autonomie.

Après les élections, le nouveau gouvernement a mis en place un nouveau système administratif. Dans la nouvelle structure, les secrétariats d'État devraient unir leurs forces au lieu de rivaliser entre eux afin d'utiliser au mieux les ressources. Un exemple de cet effort pourrait être l'harmonisation de l'activité des services qui opèrent à la frontière des secteurs de la santé et des services sociaux. Les régions sont les principales propriétaires des hôpitaux ; elles détiennent 66 % des établissements. Ce taux est de 72 % pour les établissements de soins intensifs et de 40 % pour les établissements de long séjour exclusifs.

Nikolaus Koller

NEUE KAPITEL AUFSCHLAGEN

2011 präsentiert sich als Jahr der Veränderungen. Zwei dieser Veränderungen verdienen es, in diesem Leitartikel erwähnt zu werden.

Nachdem die Gesundheitsversorgung mehrere Jahre lang von der allgemeinen Dienstleistungsrichtlinie ausgeschlossen war, hat das Europäische Parlament am 19. Januar für die EU Richtlinie über Patientenrechte bei der Grenzüberschreitenden Gesundheitsversorgung gestimmt.

Diese Richtlinie ermöglicht es, dass die Entscheidungen des Europäischen Gerichtshofs bezüglich Grenzüberschreitender Gesundheitsversorgung (Kohll & Decker et al.) auf eine Linie gebracht werden und ein rechtlicher Rahmen für diejenigen Patienten geschaffen wird, die für ihre Gesundheitsvorsorge Grenzen überschreiten möchten.

Außerdem erlaubt die Richtlinie eine Klarstellung der Patientenrechte und die Implementierung von Vorgehensweisen, die so gut wie möglich verhindern sollen, dass Patienten für ihre transnationale Gesundheitsversorgung Vorauszahlungen leisten müssen. Im Prinzip ist für die Kostenrückerstattung keine vorherige Genehmigung durch den Heimatstaat nötig. Jedoch können die Mitgliedstaaten in speziellen Fällen eine vorausgehende Autorisierung verlangen. Um einen ‚Gesundheitstourismus' zu vermeiden, erhalten Patienten nur die entsprechenden Raten des Heimatstaates rückerstattet. Patienten sollten eine Kopie ihres Krankheitsgeschichte haben.

Die Richtlinie sieht Anlaufstellen in jedem Mitgliedstaat vor, die innerhalb eines Europäischen Referenznetzwerks zusammenarbeiten und den Patienten praktische Informationen hinsichtlich der Voraussetzungen, Abstufungen der Rückzahlungen, möglicher Behandlungen, Anbieter und Vorgehensweisen bei Entschädigung bieten, sodass die Patienten eine bessere Vorstellung über die Qualität und Sicherheit der im Ausland angebotenen Gesundheitsversorgung haben, was auch zu sachkundigeren Entscheidungen bezüglich Grenzüberschreitender Gesundheitsversorgung führen wird.

Damit wird auch die Entwicklung „Europäischer Referenznetzwerke" gefördert, womit auf freiwilliger Basis bereits in Europa anerkannte spezialisierte Kompetenzzentren zusammengebracht werden. Zusätzlich ist in dieser Direktive die Einrichtung eines freiwilligen Netzwerks enthalten, das für e-health zuständige nationale Behörden verbinden soll, ebenso wie ein ähnliches Netzwerk auf dem Gebiet von HTA.

Die Mitgliedstaaten haben 30 Monate Zeit, um diese Maßnahmen in die nationale Gesetzgebung zu integrieren. Einige Bereiche stehen noch zur Debatte (z.B. das Prinzip der vorausgehenden Genehmigung, Kooperation bei e-health und HTA).

Diese Richtlinie wird sich nicht nur auf Patienten, im Gesundheitsbereich Tätige und auf Gesundheitssysteme auswirken, sondern auch auf uns Gesundheitsmanager.

Unser Unterausschuss für Europäische Angelegenheiten wird dieses Thema genau verfolgen und begrüßt alle Visionen und jeglichen Input von Kollegen aus ganz Europa. *(E)Hospital* wird über dieses Thema in den nächsten Ausgaben berichten.

Damit bin ich beim zweiten Punkt, den ich mit Ihnen teilen möchte. Wie bereits angekündigt, wurde seit der letzten Generalversammlung ein neuer Redaktionsausschuss (editorial board, EB) gegründet. Ich habe die Ehre, Hrn. Heinz Kölking als Präsident des EB nachzufolgen. Die Mitglieder des EB werden zusammenarbeiten, um sicherzustellen, dass die neuesten Entwicklungen und wichtige Belange für Europäische Krankenhausdirektoren in diesem Magazin umfassende Berichterstattung erfahren, und dass diese den neuen Zielsetzungen der EVKD entsprechen.

Bei dieser Gelegenheit möchte ich auch unsere Leser und nationale Vereinigungen einladen, Themen, Nachrichten und andere wichtige Diskussionsbereiche durch Kontaktaufnahme mit dem Redaktionsleiter oder dem Chefredakteur vorzuschlagen. Wir freuen uns, Ihren Ideen und Interessen zu folgen und sie für kommende Ausgaben in Betracht zu ziehen.

Die Titelgeschichte dieser Ausgabe legt den Schwerpunkt auf die rechtlichen Probleme in den Krankenhäusern von heute. Andere Artikel berichten über eine User-bezogene Innovation in Dänemark, und in Übereinstimmung mit der Ungarischen EU-Ratspräsidentschaft haben wir auch einen Fokusartikel über Ungarn inkludiert.

Dieser Ausgabe liegt außerdem ein spezieller Apothekenteil bei, der Sie über die neuesten Trends bei Krankenhausapotheken informiert.

Wir wünschen viel Vergnügen beim Lesen dieser Ausgabe!

Nikolaus Koller
Präsident des Redaktionsbeirat

Leitartikel in *(E)Hospital* werden von Führungspersönlichkeiten der EVKD verfasst. Die hier veröffentlichten Beiträge geben dennoch ausschließlich die Meinung der Autoren wieder und sind nicht als offizielle Stellungnahme der EVKD zu werten.

WHP INITIATIVE: GESUNDHEITSSORGE FÜR ARME LÄNDLICHE BEVÖLKERUNG GEWINNT 1. PREIS BEIM IT @ NETWORKING 2011

Prachi Shukla von den World Health Partners in Indien setzte sich gegen eine harte Konkurrenz durch und nahm die begehrte IT @ 2011 Trophäe und die Rekordsumme von 5.000 Euro in bar bei den IT @ Networking Awards 2011 mit nach Hause.

Die preisgekrönte Lösung, Gesundheitssorge für arme ländliche Bevölkerung („Healthcare for the Rural Poor"), werden Unternehmer in Dörfern technologisch dabei unterstützt, als Vermittler ländliche Gemeinden mit qualifizierten Ärzten in der Stadt zu verbinden. Dieses Projekt ermöglicht die ferngesteuerte medizinische Diagnostik mithilfe einer Audio-Video-Konferenz-Software und erlaubt somit den Patienten in ländlichen Bereichen Zugang zu effizienter und spezialisierter Gesundheitsvorsorge.

Der zweite Platz ging an "Clinical Workstation (CWS), the GPS of Every Medical User" (vorgestellt von Rudi Van de Velde).

Den dritten Platz erreichte das Projekt "From 'Micro-' Towards 'Macro-' Mobility. Building Efficient Clinical Processes by Using a Hospital-Wide, Standardised and 'Near-' Patient Communication Platform" (vorgestellt von Carl Dujat).

Die EVKD war stolz, für diese zweitägigen Wettbewerb mit der HITM (European Association of Healthcare IT Managers) zusammenzuarbeiten, und Innovatoren auf dem Gebiet der Gesundheits-IT und medizinischen Technologie im Théâtre du Vaudeville in Brüssel, Belgien, zu ehren. Es war eine fantastische Gelegenheit, Neues zu lernen – dieser originelle Event förderte die offene Diskussion zwischen Konkurrenten aus ganz Europa und darüber hinaus. Die Referenten teilten nicht nur ihre Erfolge, sondern berichteten auch über die Hindernisse, denen sie auf ihrem Weg begegnet waren.

Willy Heuschen, der Generalsekretär der EAHM, stand bereit, um den Event offiziell zu eröffnen und die Wettbewerber und Delegierten offiziell herzlich willkommen zu heißen. Hr. Heuschen unterstrich die zunehmende Wichtigkeit und Bedeutung von IT im Gesundheitsbereich und die großartige Möglichkeit, die die IT @ Networking Awards Entscheidungsträgern bieten, über diese Lösungen Neues zu erfahren, Zugang zu den Entwicklern und Usern zu haben, Fragen zu stellen und die Projekte selbst zu beurteilen.

Der Wettbewerb setzt sich aus zwei Vorstellungsrunden zusammen. Am ersten Tag standen 20 Wettbewerber mit ihren fünfminütigen MindByte Präsentationen im Zentrum der Aufmerksamkeit. Nach jeder Präsentation hatten das Publikum und das Expertengremium die Möglichkeit, vor ihrer Stimmabgabe Fragen zu stellen. Die besten neun Projekte von Tag eins waren zur zweiten Wettbewerbsrunde zugelassen: WorkBench Präsentationen. Jeder Finalist hatte 30 Minuten Zeit, um sein Projekt detailliert vorzustellen und nachzuweisen, warum ihm der Gewinn zustünde. Nachfolgend gab es vor der Stimmabgabe noch eine 15-minütige Frage-und-Antwort Session.

Es waren zwei anregende und sehr lebhafte Tage, Publikum und Expertengremium hielten sich – vor der Stimmabgabe – bei der Befragung der Präsentatoren nicht gerade zurück!

Mehr Informationen finden Sie unter: **www.itandnetworking.org**

IN MEMORIAM ASGER HANSEN

Nach einem langen Kampf gegen Krebs starb Asger Hansen am 14. Januar 2011.

Sein Platz als eine der größten Persönlichkeiten innerhalb der EVKD ist ihm sicher; sein Enthusiasmus und Einsatz für die Vereinigung waren ungebrochen und unermüdlich. In Anerkennung seiner aktiven Rolle in der Vereinigung wurde Hr. Asger am Kongress 2010 in Zürich zum Ehrenmitglied der EVKD ernannt.

25 Jahre lang repräsentierte er den Dänischen Verband der Krankenhausmanager im Führungsgremium. Als Mitglied des Vorstandes war er Vizepräsident und später, von 1998 bis 2002, Präsident der EVKD. Im Rahmen seiner Tätigkeit als Präsident überwachte er mehrere wesentliche Veränderungen in der Struktur der Vereinigung. Während seines präsidialen Mandats wurden das Generalsekretariat in Brüssel und die Unterausschüsse gegründet. Er war der Präsident des Wissenschaftlichen Ausschusses seit seiner Gründung und leitete den Ausschuss mithilfe seiner umfassenden beruflichen Expertise als Generaldirektor der Kopenhagener Universität in Gentofte.

Die EVKD spricht hiermit seiner Frau Conny, seiner Familie, seinen Freunden und Kollegen ihr aufrichtigstes Beileid aus.

Juristisches Interview: Dr. Marzi, Allgemeines Krankenhaus Wien

Dr. Marzi, Leiter der Rechtsabteilung am Wiener Allgemeinen Krankenhaus, nahm sich die Zeit, um mit (E)Hospital über aktuelle rechtliche Probleme zu sprechen, denen sich Krankenhäuser heutzutage gegenüber sehen. Seiner Meinung nach ändern sich die wesentlichen Punkte, und am wichtigsten sei es, Trends vorauszusehen, bevor sie unser tägliches Leben beeinflussen. Für Dr. Marzi sind Datenschutz und Risikomanagement Schlüsselfaktoren. „Krankenhäuser werden immer gefährliche Standorte sein, aber viele Risiken können problemlos gesenkt werden, wenn man weiß, welche Risiken existieren. Ich denke, es ist falsch, über ‚Patientensicherheit' zu reden, wenn man dabei die Mitarbeiter des Krankenhauses übersieht. Ich bevorzuge es daher, über ‚Krankenhaussicherheit' zu sprechen, einschließlich aller Personen, die in diesem Krankenhaus oft viele Jahre lang arbeiten... Wir können eine Menge von der Luftfahrtindustrie lernen, wo Passagiere deswegen sicher sind, weil ein ausgebildetes Team für sie arbeitet."

Der juristische Notfallkoffer

Von Leopold-Michael Marzi

2007 wurde am Wiener Allgemeinen Krankenhaus der „juristische Notfallkoffer" eingeführt, der in Zusammenarbeit von Rechtsabteilung und Haftpflichtversicherung entwickelt wurde. Jeder Arbeitnehmer muss innerhalb einer Minute vom Arbeitsplatz diesen beschrifteten, handlichen Plastikkoffer erreichen können. Der Koffer enthält Anleitungen für das korrekte Verhalten im Falle eines Schadensfalles (Benachrichtigung der Vorgesetzten und der Rechtsabteilung, Aufnahme der Kommunikation mit dem geschädigten Patienten etc), ebenso wie Formulare für die Berichterstattung, wichtige allgemeine Informationen bezüglich Haftungsfragen und das Buch „Rechtliche Fragen im täglichen Krankenhausleben".

Der juristische Notfallkoffer ist nur ein Teilelement der erfolgreichen Senkung der Fälle von Schadensersatzansprüchen am AKH Wien. Team-Fortbildungen auf Basis bereits abgeschlossener Fälle sind ebenso sinnvoll wie das Vermitteln fachspezifischen Rechtswissens an Arbeitnehmer. Jedoch kann sich ein anhaltender Erfolg nur dann einstellen, wenn die Bemühungen ohne Unterlass weitergeführt werden und alle Beteiligten sich kontinuierlich weiter verbessern.

Ethische und rechtliche Herausforderungen bei e-Health

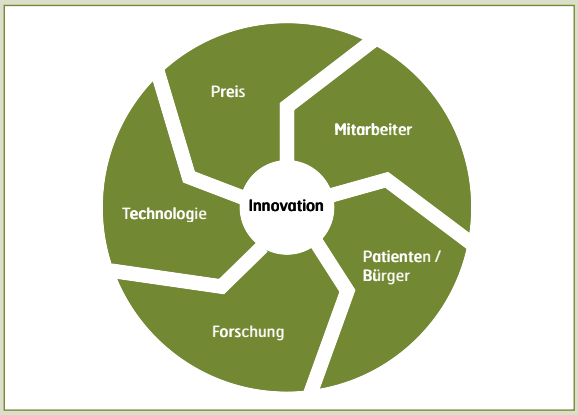
Von Eike-Henner W. Kluge

Bei e-Health handelt es sich um eine technisch ausgereifte Modalität der Gesundheitsversorgung, die nicht nur entwickelt wurde, um auch dort kontinuierliche Betreuung zu erlauben, wo dies früher nicht möglich war, sondern auch, um diese Betreuung auf qualitativ höchstem Niveau und zu einem vernünftigen Preis einer großen Vielfalt von Patienten zugängig zu machen. Wie jede neue Modalität hat jedoch auch e-Health seine Herausforderungen, und diese sind nicht nur technischer Natur. Dazu zählen Wertebereiche, die an den wahren Kern der Gesundheitsfürsorge gehen, an die Natur der Beziehung zwischen Gesundheitsdienstleister und Patienten, an die Rolle und Verantwortlichkeiten der Informatiker, und sie schließen auch Bereiche wie Einverständniserklärungen, Privatsphäre und Haftung ein.

Durch Innovation Krankenhaus-Geschäftsmodelle optimieren

Von Pernille Weiss Terkildsen, Claes Brylle Hallqvist, Jonatan Schloss

Die Autoren dieses Artikels befinden sich derzeit in der Frühphase des Krankenhausbauprojekts mit Namen „Nyt Hospital Bispebjerg". Sie möchten in ihrem Text darauf hinweisen, wie verschiedene Quellen der Innovation – kombiniert mit einer detaillierten und Evidenz-basierten Basis – sicherstellen können, dass große Anlageinvestitionen auch zu einem betrieblich optimierten Geschäftsmodell führen. Indem eine vernünftige Basis gelegt wird, ist es möglich, den Innovationsaufwand auf die von der Organisation festgelegten Ziele zu lenken, um dort einen möglichst positiven Einfluss zu haben.



Es wird zunehmend üblich, sich auf die benutzergesteuerte Innovation zu konzentrieren, doch führt dies oft zu einseitigen Ergebnissen. Heutzutage ist Innovation oft auf Forschung, Technologie, Preise und Ökonomie zurückzuführen. Wir sollten diesen anderen Innovationsquellen ebensoviel Aufmerksamkeit schenken wie den benutzergesteuerten Innovationen, und diese sollten auf ähnliche Weise überwacht und integriert werden. Der wichtigste Punkt ist jedoch, dass alle Innovationsquellen im Verlauf der verschiedenen Phasen des Bauprojektes in ein logisches und produktives Delta kombiniert werden sollten.

Wie führt man Mitarbeitergespräche

Von Mathias Goyen

Leistungsbeurteilungen sind ein wesentlicher Bestandteil effektiven Managements und Evaluierung der Mitarbeiter. Sie helfen, Personen in ihrer Entwicklung zu fördern, die organisatorische Leistung zu verbessern und fließen in Geschäftsplanungen mit ein. Formale Leistungsbeurteilungen werden generell einmal im Jahr für alle Mitarbeiter der Organisation durchgeführt. Heutzutage haben die Menschen immer weniger Zeit, sich Angesicht zu Angesicht zu treffen. Leistungsbeurteilungen bieten einen Weg, diese wertvollen Gelegenheiten zu schützen und zu managen.

Laut Goyen gibt es für eine effektive Mitarbeiterbeurteilung zwölf Schlüsselfaktoren:

- Vorbereiten
- Informieren
- Ort
- Layout
- Eröffnung der Beurteilung
- Review und Bemessung
- Einigung bezüglich Aktionsplans
- Einigung bezüglich des nötigen Supports
- Einladung anderer Punkte
- Mit einer positiven Note enden
- Aufzeichnung der wichtigsten Punkte, des vereinbarten Aktionsplans und des Follow-up.

Wirtschaftliche Belange bei Brustkrebstherapie

Von Athanasios G. Pallis, Nikolaos Maniadakis

Brustkrebs ist weltweit die häufigste Krebsform bei Frauen. Trotz neuer Entwicklungen ist die Inzidenz nach wie vor hoch. Angesichts dieser Tatsache ist Brustkrebs eine Erkrankung mit einer großen epidemiologischen und wirtschaftlichen Belastung. Es gibt für das Management der Patientinnen heutzutage viele therapeutische Alternativen, von denen jede mit unterschiedlicher Effektivität, Sicherheit und ökonomischem Profil assoziiert ist. Da Ressourcen knapp sind, müssen sie in diejenigen Optionen investiert werden, die die Gesundheits-Outcomes maximieren.

Therapien sind nachweislich generell kosteneffektiv, in verschiedenen Settings und Ländern, mit einem – so wie bei anderen wiedererstatteten Therapien – ansteigenden Kosten-Effektivitätsverhältnis, mit nur einer einzigen Ausnahme. Solche pharmako-ökonomischen Analysen sind wichtig für politische Entscheidungsträger und Manager, da sie Entscheidungen erleichtern und den Gebrauch knapper Ressourcen optimieren, die für die Krebsbehandlung und die Betreuung der Patientinnen vorgesehen sind.

E-Verschreibungen auf der Intensivstation

Kathyrn Went, Shaun McLeod, Ian Ricketts, Kenny Scott

Der Gesundheitsbereich untergeht einer großen technologischen Veränderung, im Bemühen, derzeitige Vorgehensweisen und die Patientensicherheit zu verbessern. Obwohl der Einsatz der Informationstechnologie als Lösung für die Verbesserung der Patientensicherheit und vor allem für die Verminderung medizinischer Fehler gefördert wurde, müssen geeignete Methoden bezüglich des Aufbaus und der Entwicklung solcher Systeme angewandt werden, um deren Tauglichkeit sicherzustellen.

Ein interdisziplinäres Team wurde aufgestellt, das Experten für interaktive Systeme und für Gesundheitsdesign einschließt und zusätzlich Anästhesisten, Krankenpflegepersonal und Pharmazeuten inkludiert. Dieses Team beteiligte sich aktiv am Aufbau und der Entwicklung eines elektronischen Rezeptverschreibungs- und Administrationssystems.

Die anhaltende, zuverlässige Userteilnahme führte zu einer Lösung, welche die User in ihrer täglichen Arbeit unterstützte. Nicht nur, dass die User das System bevorzugten, sondern auch das generelle Niveau der Verschreibungscompliance (gemessen an national akzeptierten Standards) war mit dem elektronischen System (91,67%) signifikant höher als mit dem Papiersystem (46,73%).

Die Genesung der Ungarischen Gesundheitsversorgung

Von Lajos Ari, Ervin Kövesi, Ilona Borbás

Nach dem Wahlsieg im Frühjahr 2010 übernahm die Orbán Regierung die Kontrolle in Ungarn, in widrigen wirtschaftlichen Umständen, von denen das Gesundheitssystem nicht ausgenommen war. Alle Teilnehmer des Gesundheitssystems sind sich einig, dass die Zeit für eine umfassende Rekonstruierung des Systems reif ist, wobei zur gleichen Zeit die grundsätzlichen Werte wie etwa Solidarität und Autonomie erhalten bleiben sollen.

Nach den Wahlen installierte die neue Regierungspolitik ein neues Administrationssystem. Es wird erwartet, dass mit dieser neuen Struktur die Staatssekretariate nun eine zusammengeschlossene Kraft werden, die bestehende Ressourcen besser nutzen, anstatt miteinander zu konkurrieren. Ein Beispiel dieses Versuchs ist die Harmonisierung der Arbeit von Dienstleistungsträgern, die an der Grenze zwischen Gesundheit und Sozialfürsorge operieren.

Lokale staatliche Stellen sind die hauptsächlichen Eigentümer der Krankenhäuser, ihnen gehören 66 Prozent der Institutionen. Die Rate beträgt 72 Prozent bei Akutbehandlungsstätten und 40 Prozent bei Einrichtungen, die nur langfristige Betreuung bieten.

AGENDA 2011

March

ISICEM 22-25
Brussels, Belgium
www.intensive.org

Congress of the European Association of Hospital Pharmacists 30-1
Vienna, Austria
www.eahp.eu

April

Hospital Build Europe 2011 4-6
Nürnberg, Germany
www.hospitalbuildeurope.com

ConHit 2011 5-7
Berlin, Germany
www.conhit.de

Med-e-Tel 6-8
Luxembourg, Luxembourg
www.medetel.eu

IHE Europe Connectathon 11-15
Pisa, Italy
www.ihe.net

7th World Health Care Congress Europe 2011 13-14
Brussels, Belgium
www.worldcongress.com

May

ECCMID 2011 7-10
Milan, Italy
www.eccmid-icc2011.org

World of Health IT 2011 10-12
Budapest, Hungary
www.worldofhealthit.org

HIT Paris 2011 17-19
Paris, France
www.health-it.fr

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