Hospital

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FACING CHALLENGES TOGETHER

Heinz Kölking

The year 2011 will surely stay in our memories for a long time due to the turbulent developments in the financial markets and national budgets. Under the widespread cost cutting measures in almost all European countries, hospitals have had to reduce spending or to find new sources of income. Company strategies had to bend and new priorities were set. During all of this, quality must increase or at least remain at current standards and come through this competition under the health suppliers.

These special challenges are faced by hospital managers across Europe and they will surely be with us for some years to come. Nobody wishes for such circumstances but the situation is also a chance for the EAHM. Especially in troubled times, any good advice is worth its weight in gold. The topic of the planned 24th EAHM congress in Luxembourg (November 28-29, 2013) focuses on these challenges. Our scientific subcommittee has agreed that innovative hospital managers are needed more than ever as any profound change in the hospital is his executive duty. Budget deficits have of course to be avoided. However, it is also of primary importance to promote and to maintain cohesion and confidence during these cost cutting measures in the cooperation with all employees of the hospital.

Healthcare in our countries is a key factor for ensuring social cohesion and hospitals play a prominent role. On the one hand, the hospitals safeguard the medical and nursing care of the people in the member states. On the other hand, the hospitals represent an essential factor in our national economies. Many people are both directly and indirectly employed in the health economy. So all of us are asked to safeguard the prerequisites that this responsibility is taken in our countries in Europe. This is an acute challenge during times of financial crisis. Furthermore the basic and various changes (technology; communication; demography; values) in our society have a profound effect on the structures and processes of the health supply. This multi-dimensional responsibility of the health sector for people and society will be the topic of the 25th EAHM congress in Berlin, which will take place on 11-12 September.

Especially in troubled times, any good advice is worth its weight in gold.

I must also take this time to sincerely thank our many dedicated members and partners within the EAHM. With the support and contributions of many of our colleagues in European hospitals we can overcome these challenges and look to the future. We owe this to the patients aswell.

This issue of *(E)Hospital* provides many broader interesting topics for you which among others come from contributions of our colleagues in Austria and Northern Ireland. This issue the country focus deals with our friends in Bulgaria.

Heinz Kölking
President EAHM

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Training and Education

Like any profession, training and education will always be a key issue for hospital managers. We have covered training and education numerous times in this journal and it is an important issue for the EAHM. Indeed, the EAHM is currently collaborating with other international organisations on the development of healthcare management competencies. This issue we discover what type of training is offered in the smaller countries of Austria and Northern Ireland. Klaus Watzinger introduces us to the activities of the Austrian Institute of Health Care Management and we speak to two healthcare management trainees (past and present) from Northern Ireland.

Oncology Supplement

Included with this issue is our oncology supplement. As usual there is one copy for you and another to pass on to your relevant colleagues. Ulrich Jaehde et al focus on pharmaceutical care for patients with breast and ovarian cancer, highlighting how individualised patient care has the potential to reduce the incidence of adverse drug events. We also showcase key oncology presentations from EuroMedLab 2013 and bring you the latest news on the "iKnife"

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Focus: BULGARIA

Bulgaria's main challenge is to catch up with the more developed Member States in terms of healthcare services. The major goal, and indeed challenge, is to improve population health. Success depends on improving competitiveness and structural reforms, particularly in the health system, to stimulate growth.

The Stara Planina Regional Association of Hospitals, Bulgaria supports hospitals in the region to improve the access to quality health services by optimal usage and development of resources, by attracting new partners and by being flexible to respond to the changing healthcare needs.

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PRODUCTIVE EXECUTIVE COMMITTEE MEETING IN AMSTERDAM

The Executive Committee met for the 96th time on May 24th. The meeting took place in Amsterdam, kindly hosted by our new EAHM industry partner Arcadis.

A packed agenda as usual, the Executive Committee discussed many important issues including how to support our Greek colleagues in light of the cancellation of the Athens congress last year. In an act of solidarity, many national associations are willing to help the Greek association recover from this situation and once again fully participate in EAHM activities.

The meeting also saw the proposal of a new working model for the association: IMPO. Brainchild of Secretary General Willy Heuschen and his assistant Jos Vanlanduyt, IMPO stands for Inputs, Management, Processes and Outputs. Heuschen presented the model and explained the concept in Amsterdam, which was met with positive comments from both the Board and Executive Committee. The model will be further debated and presented to all members at the congress in Luxembourg later this year.

Other exciting news from the meeting was the designation of the 2016 EAHM congress. After much deliberation between two great candidates (Italy and Northern Ireland), the Board agreed to appoint ANMDO as the 2016 congress organisers. Details have yet to be organised but ANMDO and the EAHM are pleased to invite members to Bologna in 2016.

Other issues of business included an update on the work of each of the subcommittees and the preliminary budget for 2014.

Members of the Executive Committee and new industry partners in Amsterdam

2ND JOINT EUROPEAN HOSPITAL CONFERENCE

The next Joint European Hospital Conference, jointly organised HOPE, AEMH and EAHM will take place on Friday November 22nd 2013 in Düsseldorf (Germany) as part of the 36th Deutsche Krankenhaustag at Medica 2013.

The morning session will continue last year's theme, looking into the European Directive on Patient Rights. In the afternoon, the conference will focus on access to innovation in hospitals.

More information:
http://www.eahm.eu.org/⇒ Resource center ⇒List of congresses

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EAHM WELCOME NEW MEMBER: NORTHERN IRELAND

The EAHM is please to announce that the Northern Ireland division of the Institute for Health Management will be joining the association.

President Heinz Kolking and Secretary General Willy Heuschen took a trip to Belfast in May to meet some of the members of the association and assess the city as a possible EAHM congress destination.

Louise McMahon, Chair of the Institute for Health Management Northern Ireland (IHM NI) will take a place on the Executive Committee and European Affairs Subcommittee. Speaking at the latest Executive Committee meeting in Amsterdam, McMahon stressed that IHM NI is committed to Europe and European affairs and that she is looking forward to a fruitful relationship. The Secretary General said he was happy to once again have links to the UK, albeit a regional association, and hopes this will help re-establish contact with the UK association.

IHM NI will become official members after approval from the General Assembly in Luxembourg in November.

Tom Daly, Heinz Kolking, Louise McMahon and Willy Heuschen on the staircase in Belfast City Hall

Willy Heuschen, Louise McMahon and Gerry O'Dwyer also met with Dr Ambrose Mc Loughlin, Secretary General Department of Health and Deputy Prime Minister of Ireland, Eamon Gilmore in Dublin

WORLD HOSPITAL CONGRESS IHF OSLO 2013

The IHF World Hospital Congress saw some interesting developments for the EAHM. The IHF General Assembly saw two of our members assigned new roles. Nikolaus Koller (Austria) was appointed Governor and our Norwegian colleague Erik Kreyberg Normann was announced as IHF President Elect.

It was a busy few days for Normann as he was also President of the 2013 Congress, which was a resounding success. Attended by the Crown Prince of Norway, the Norwegian Health Minister and head of the WHO Margaret Chan, the conference gave a truly global insight into the theme of future healthcare.

One session of particular importance to the EAHM was the IHF Healthcare Executives Chapter session: International perspective on healthcare executive competencies. Our Irish representative from the EAHM Scientific Affairs subcommittee Lucy Nugent has become the point of contact for this initiative after a recent visit to Washington (see EAHM news issue 1 2013).

During the session in Oslo, Lucy and representatives from the US, Taiwan and Latin America and the Caribbean presented their work on developing global healthcare management competencies. Lucy took the opportunity to present the current status in European countries. The session showed the progress already made since its inception six months ago and garnered significant attention and debate from attendees. Work on the project will continue with the next update presented at the EAHM congress in Luxembourg.

Lucy Nugent and other members of the IHF Healthcare Executives Chapter discussing global healthcare management competencies

HOSPITAL MANAGEMENT IN TIMES OF CRISIS

CONSTRAINTS, CHALLENGES AND OPPORTUNITIES

28 - 30 NOVEMBER 2013 LUXEMBOURG

OVERVIEW

Luxembourg2013 is the forum in which more than 600 CEOs, Hospital managers from all over Europe will share their experiences and best practices in healthcare management. **Take advantage of this opportunity to position yourself among the key decision makers from European hospitals.**

This year, the congress will focus on how to deal with economic constraints and transform them into opportunities. Many people strongly believe that funding is the crucial factor to the effectiveness. When the economy is weakened and the hospital budget reduced, what can a hospital manager undertake to continue to deliver better care? This is what the congress will try to address.

CONFERENCE

Sessions will focus on practical means to preserve or enhance quality of care even in the face of static budgets.
Roundtables will give the opportunity to share best practice and discuss their added-value.
Posters sessions will be dedicated to **Improvement of patient outcomes with static budget**. The best posters will be rewarded and published on the congress website.

HOSPITAL VISITS

Healthcare developments in Luxembourg will also be addressed. You will have the opportunity to visit hospital and discuss with professional the innovations set.

EXHIBITORS

At the exhibition, healthcare professionals will provide in-depth insight into the latest developments in healthcare.

UNIQUE NETWORKING OPPORTUNITY IN THE HEALTH SECTOR

The congress will offer networking opportunities with key decision makers from the major hospitals in Europe, the healthcare industry representatives in an informal, effective business setting.

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PRELIMINARY PROGRAMME

Wednesday, 27 November 2013

PRE-CONGRESS PROGRAMME

- Hospitals visits
- Presidential dinner for sponsors

Thursday, 28 November 2013

OPENING CEREMONY

The official speakers and the keynote speaker "Patient Value in Hospital Management"
(10.30 - 12.30)

GOLDEN HELIX AWARD

(13.30 - 14.00)

STRATEGIC GUIDELINES IN CRISIS

(MERGERS, JOINT VENTURES, OUTSOURCING, HUMAN RESOURCE MANAGEMENT, FINANCIAL RESOURCES)

- Two 30-minute lectures (14.00 - 15.00)
- Poster Session - presentation (15.00 - 15:30)
- Break (15.30 - 16.00)
- Two 30-minute lectures (16.00 - 17.00)
- 45-minute roundtable (17.00 - 17.45)

RECEPTION HOSTED BY THE CITY OF LUXEMBOURG

(Evening)

Friday, 29 November 2013

BUSINESS PROCESS RE-ENGINEERING

(LEAN MANAGEMENT, PURCHASING, USE OF IT)

- Two 30-minute lectures (09.00 - 10.00)
- Break (10.00 - 10.30)
- Two 30-minute lectures (10.30 - 11.30)
- 45-minute roundtable (11.30 - 12.15)

NEW BUILDINGS, NEW LOGISTICS, NEW TECHNOLOGIES

- Two 30-minute lectures (14.00 - 15.00)
- Poster Session: awards ceremony (15.00 - 15.15)
- Break (15.15 - 15.45)
- Two 30-minute lectures (15.45 - 16.45)
- 45-minute roundtable (16.45 - 17.30)

GALA DINNER AT CASINO 2000, Mondorf-les-Bains (L)

(Evening)

INFORMATION

VENUE

The Congress will be held in Luxembourg business centre, at the prestigious Conference Centre (Luxembourg/Kirchberg). The building is located 5 min from downtown Luxembourg and is well connected by public transport.

OFFICIAL LANGUAGES

The official congress languages will be English/German/French. All presentations will be in one of these three languages.

SIMULTANEOUS INTERPRETING

All presentations will be simultaneously interpreted into English/German/French.

REGISTRATION

Online registration for attendees and accompanying persons will begin on 1 March 2013 via the congress website:
www.eahm-luxembourg2013.lu

ACCOMMODATION

Participants can book their hotel rooms online from 1 March 2013, plan your trip with a few clics:
www.eahm-luxembourg2013.lu

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THE POLISH ASSOCIATION OF HOSPITAL DIRECTORS CELEBRATES ITS 20TH ANNIVERSARY

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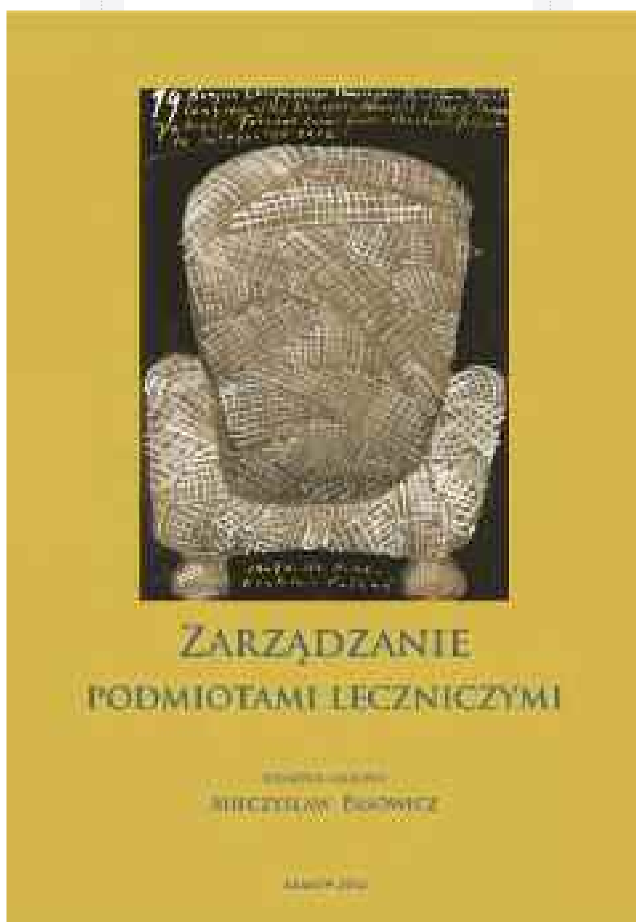
In honour of the 20th anniversary, Mieczyslaw Pasowicz, the President of the Polish Association of Hospital Directors, has written a book on the history of the association and its numerous activities.

The History

The political changes in Poland of 1989 and the democratisation of public life and the development of international cooperation became an inspiration and support for changes in the healthcare system. The directors of Polish hospitals visited hospitals in Copenhagen in 1992, in the wake of an agreement on Polish–Danish cooperation, which had been signed by Copenhagen voivode Vibeke Storm Rasmussen and Krakow voivode Tadeusz Piekarz. The cooperation was supervised by Jerzy Miller (the head of the Voivodeship Office) and Asger Hansen (the president of the Danish Association of Hospital Managers). In May of 1993 Polish Association of Hospital Directors became a legal entity. From the founders, the members of the first management board were elected: Mieczysław Pasowicz, as the president, Janusz Hałuszka and Wojciech Przybylski as vice presidents, Jadwiga Szerla as a treasurer and Aleksandra Grabowska as a secretary.

The Polish Association of Hospital Directors became a member of European Association of Hospital Managers in Berlin, during the congress in September 1994.



Outlook for the Future

The Polish Association of Hospital Managers came into existence 20 years ago, when the political and economic situation in Poland was completely different. Then, the main objective was educating the medical environment in view of planned changes in healthcare system and preparations for the reforms to come. Now, the health policy in Poland needs changes of a different kind, yet the level of health awareness is, and reflects the changing healthcare situation, much better than before.

The important issue is hospital restructuring and transformation. During this time the number of hospital beds and state owned hospitals decreased. This brings the problems of contract fragmentation, timesheet processing, multi jobbing, and the sense of the limited access to state-funded health services. Thus, it is necessary to adjust the structure and the number of hospital beds and medical staff in hospitals as well as to adapt the funding system to the current and future needs of society. The sense of patients' responsibility for their health is on the increase, too, which forces hospitals to get more involved in promoting active and healthy ageing within the concept of silver economy and geriatric medical care. The association will suggest developing new organisational and technical solutions in the area of medical and hospital services, taking into consideration the following factors: the ageing population, the technological advances, the economic crisis, the need for the reduction of hospital debts and introducing additional sources of income in healthcare system. For many years we have been participating in activities aimed at improving quality of healthcare, patient safety and risk management. The association seems to be a perfect tool for requesting on the behalf of national hospitals reference network and cooperation of public and private sector. A bigger participation of Polish Association of Hospital Managers in developing a strategy for medical, demographic and economic challenges of the 21st century is needed.

For photos and videos of recent events please visit myhospital.eu

MOVING TOWARDS **E-HEALTH ECOSYSTEMS**

A declaration by the Irish Presidency of the Council of the EU committing Member States to developing eHealth ecosystems that could contribute to the reform of health systems has been welcomed by European Commission Vice-President for the Digital Agenda Neelie Kroes and Health Commissioner Tonio Borg.

The Irish Presidency presented the Declaration at the Ministerial eHealth High Level Conference which was held alongside eHealth Week and the World of Healthcare IT in Dublin on May 13th. eHealth ecosystems pool the resources of health and social care providers, industry, research institutions, authorities and end users throughout Europe to accelerate the development and adoption of innovative solutions such as eHealth to specific problems in health and social care.

Neelie Kroes said: "eHealth ecosystems could be the answer to the strain our social security systems are undergoing. If we work together and we use the enormous potential technology has to offer us, we can ensure top healthcare for all in Europe."

Tonio Borg said: "I agree that building ecosystems, bringing together all the different players is a promising way forward. We very much promote this type of approach under the European Union Innovation Partnership on Active and Healthy ageing. Here we bring together partners such as industry, health professionals, policy makers, patients and carers to shape innovative solutions."

eHealth ecosystems could, among others, support the health reform process in Europe, help us better understand healthcare needs and make the introduction of new and innovative public/private business models in healthcare easier. They facilitate mutually beneficial research and innovation of the highest quality and may lead to an increased use of new technology and services that improve patient care.

Ministers agreed that the aims of eHealth ecosystems could be achieved by:

- Strengthening coordination of all policies related to eHealth, from support to research and deployment, to developing a legal framework in specific areas like medical devices, patient safety, information security and interoperability;
- Promoting mutual learning and sharing of good experiences inside ecosystems between purchasers and providers, academia, citizens, industry and throughout the public and private sector health industry;
- Allowing innovative concepts, products and services to create new markets by applying new sets of rules, values and models; and
- Accelerating the implementation of existing and proven devices and processes through intensive innovation techniques and innovative procurement tools to ensure that citizens receive the benefits in a shorter timeframe, by delivering on existing priorities.

Photo: Gerry O'Dwyer, VP EAHM; Dr. James Reilly, Minister for Health, Republic of Ireland; Edwin Poots, Minister for Health, Social Services and Public Safety, Northern Ireland; Tom Daly, HSE & DG CAWT.

This year's e-Health Week in Dublin showcased the opportunities information technology can bring to both the healthcare sector and the economy as a whole. The Irish Health Minister, James Reilly addressed attendees at the opening ceremony and marveled at the range of topics and highly specialised sessions in the conference programme. Reilly stressed that e-health is lagging behind other industries and although it is certainly more complex and challenging than other areas of innovation, the potential benefits outweigh the challenges to overcome.

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TRAINING AND EDUCATION

Like any profession, training and education will always be a key issue for hospital managers. Unlike doctors or lawyers, there is no professional body dictating the requirements for entry into the profession and yet hospital managers are shouldered with the enormous responsibility of running a hospital and ensuring the timely delivery of quality care. We have covered training and education numerous times in this journal and it is an important issue for the EAHM. Indeed, the EAHM is currently collaborating with other international organisations on the development of healthcare management competencies.

In 2010 we published a cover story on training and education, asking our members to update us on training for hospital managers in their respective countries. This year we are revisiting the topic and discovering what type of training is offered in the smaller countries of Austria and Northern Ireland. Klaus Watzinger introduces us to the activities of the Austrian Institute of Health Care Management and we speak to two healthcare management trainees (past and present) from Northern Ireland.

Healthcare Management Training in Northern Ireland

The Health and Social Care Services Northern Ireland (HSCNI) runs a management training scheme to recruit the next generation of healthcare managers. Successful applicants receive both theoretical and practical management training through a variety of courses and placements, including the unique 'Cooks Tour', which enables trainees to learn about the health service from behind the scenes. Louise McMahon (LM) , now Director of Performance and Service Improvement at Health and Social Care Board, Northern Ireland started her career as a graduate trainee and Karen Hamill (KM) is currently coming to the end of her traineeship.

Why did you decide to apply for the trainee scheme?

LM: I saw an advertisement in the local newspaper looking for 'Ambitious Graduates'. I had recently graduated, completed a teaching qualification and spent a year teaching in an Irish language school. I loved working with the children but I felt there was something more that I wanted to do. The health service bridged that gap between a future in education and a move into the private sector, which hadn't appealed to me at that time.

KH: I wanted a career that was both challenging and rewarding. The Graduate Management Training Scheme with HSCNI looked to tick all the boxes. The scheme provides education through both Manchester and Birmingham University as well as many other opportunities to develop leadership skills to really make a difference in frontline management. To play to their strengths when working to increase effectiveness organisation-wide.

Tell us a bit about your educational/professional background

KH: I studied Law at University of Newcastle upon Tyne but decided that a legal career wasn't for me. I wanted more of an opportunity to think outside the box and to contribute ideas that could improve services. I really got that chance with the training scheme.

LM: My undergraduate degree is in Celtic Languages and Literature with a music subsidiary. There were not many opportunities in Northern Ireland with those subjects beyond teaching hence a move into a different world completely. I took the Institute of Health Service Management exams as part of the management training scheme – that was quite a lot of work over three years while working and going through the development programme at the same time – good training for managing your workload! I became a member of IHM by that route which entitles me to use the post-nominals DipHSM. I later took an MBA, studying part-time – I found this extremely relevant and useful and enjoyed meeting people from other industries and working together on their management issues. I draw on a lot of the theories and techniques that I learned in the MBA in my job day to day. I have recently started to study for a PhD in health service research – that's very demanding – taking me back to many of the things I studied as a trainee – public health, health economics but in much more depth. I hope to influence the research and the policy communities to embrace each other's areas of interest and skills so that we create a culture of evidence-based policy and health service management.

Tell us a bit about how the scheme works (length, number of people, number of placements etc).

LM: The scheme when I went through it lasted from September to June – 21 months. There were four trainees from Northern Ireland in my year selected from 400 applications with a demanding but enjoyable selection process. We went to the Health Service Management Unit based in Manchester Business School (University of Manchester) – the training was great and it was good to mix with trainees from the Northern, North Western and East Anglian regions of the U.K.

My substantive post was as 'Consumer Services Manager' at Altnagelvin Hospital in Derry – managing the porters and the telephonists – a great learning opportunity. The highlight of my elective placements was across three hospital settings in France – Hotel Dieu de Paris, Hospital Le Chesnay, Versailles and a private clinic in Nice. These placements provided unique insights into the workings of another health system and I met many of the French trainees from Ecole de la Santé Publique, Rennes. I applied for jobs through open competition at the end of the scheme – I was lucky to get a job straight away.

KH: The general management scheme is a two year programme. Intake varies each year, in my year there were three trainees. There is also a training scheme which is HR specific, one for health engineering and 2012 saw the first intake of trainees for a procurement and logistics scheme. I completed my Cooks Tour in the Northern Trust which lasted 3 months. I then completed a 9 month spell in an operational management role in the Belfast Trust. That was followed by what is known as an 'elective placement'. I spent two months working in healthcare consultancy with Ernst & Young and the following two months in the HSC Leadership Centre working on Service Improvement projects. To complete the scheme I moved to a more strategic placement in planning and performance within the Southern Trust. The scheme provides a real flavour for all aspects of health service management.

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Trainees benefit from the best in personal development practice to improve performance and enhance their skills. The scheme is currently run by a learning development partnership and trainees attend workshops in England with other UK graduates throughout the two years.

The 'Cooks Tour' placement sounds like a great opportunity to learn from the ground up. How important was this aspect of the training and how has it helped in other placements/posts?

LM: The three month 'Cooks Tour' gave me a great insight into the workings of all aspects of health and social care and I met so many people of all disciplines and grades who were proud of their jobs – they educated me thoroughly and many of them I met again at various stages of my career - great preparation for a general management career.

KH: The 'Cooks Tour' was without doubt one of the most important and most enjoyable elements of the scheme. I will never forget my day spent working with the porters or the day in delivery suite throughout my career. It gave me a real insight into how all elements of service delivery come together to create the patient experience and helped me understand the system much more clearly. It was also a great way to meet people and build relationships, many of which have proved vital in other placements.

The 'Cooks Tour' not only gives a trainee exposure to the workings of an acute hospital but also the chance to spend time at the commissioners, the quality regulator, the ambulance service and the patient and client council. An understanding of the function of these organisations and again the contacts established at such an early point in the scheme are invaluable to a trainee. The experience I had during my 'Cooks Tour' will hold me in good stead throughout my management career in the health service.

The programme includes both a mentor and buddy scheme. How does this work and what are the benefits?

LM: I had a mentor on the training scheme who was a senior manager and had been a trainee herself – she provided strong guidance and dismissed various myths that I came across. I also learned much from my manager in my substantive post about engaging with senior medical and nursing staff to improve services and deal with difficult situations.

KH: At the beginning of the scheme each trainee is assigned a mentor and a buddy. The mentor is usually a senior figure within the health service. This is a useful relationship but is kept on a casual basis; there is no compulsory element to the mentor scheme. I made great use of the mentor scheme, I asked for advice and discussed any concerns or ideas I had. It is an important relationship and helps a trainee to settle into their post much more easily. The buddy scheme is slightly different, usually someone who has just recently finished the two year training programme. I meet my buddy regularly and I can ask for help or for answers to any questions I may have regarding the scheme.

Health and social care is integrated in Northern Ireland. How does this affect management training and indeed, management decision-making?

LM: It's something that we take for granted and it's interesting that so many other countries are now striving for this goal and having great difficulty grappling with how to cross those organisational boundaries. In terms of management training the social care services are encompassed in the Cooks Tour and training posts. However, since the training is closely linked to the system, much of the educational input focuses on health services – this may change though with the focus on integrated care in England. With regard to management decision-making we cannot underestimate the potential barriers presented by different training (for social workers and health service managers), culture and boundaries within organisations, e.g., budgets, which can inhibit collaboration as people look to protect their own finances. Organisational integration does not automatically mean that the flows for patients will be optimised – this still takes negotiation and agreement and organisation.

KH: I think because health and social care is integrated in Northern Ireland, trainees need a better understanding of how the whole system works together. Patient pathways include both elements of health and social care and it is vital that both work well together and that the channels of communication are open. It is always interesting when the trainees from Northern Ireland attend Manchester Business School; the NHS England trainees are always intrigued as to our system and how it affects our decision-making. It is a model of care that is very patient focused and this helps as a trainee to focus every decision on what really matters.

In your opinion, what key skills are needed to become a successful healthcare manager?

KH: I think a range of skills are important to become a successful manager. A mix of drive, leadership qualities and the ability to remain calm under pressure to me are very important. Health and social care is constantly changing and it is crucial that managers are able to drive this change to improve performance. I think a bit of personality and good interpersonal skills also help. Building relationships with all staff and clinicians particularly is key to the role. It is such an interesting career and constantly challenges me to develop and refine my skills. There are so many opportunities in terms of training and learning as a trainee and in that sense I think we are very privileged.

LM: You need to be an extraordinary individual! An endless range of skills are needed – there are the fundamentals such as comprehensive knowledge of health and social care policy and delivery– historical and kept up-to-date, law, finance, data analysis but what you need above all is really strong people skills. Health and social services are all about people – those who deliver and those who receive treatment and care and all the support functions that enable that to happen. So it's essential to have exceptional communication, negotiation, influencing and persuasion skills but also the knowledge and experience in knowing when to challenge to solve problems and get the best outcomes. We work long hours and come under considerable scrutiny from the media and the public in general. The job on a day-to-day basis can be extremely challenging – we have enormous accountability – the lives and well-being of our patients and populations, a substantial proportion of tax payers' money in a highly political environment – resilience is a skill we all need increasingly.

Health service management is an incredibly interesting job, no two days are the same. For most people it has a strong vocational element reflected in their unswerving commitment and dedication.

Interviewees:

Louise McMahon
Director of Performance and Improvement
Karen Hamill
Graduate Trainee

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TRAINING AND EDUCATION OF HOSPITAL MANAGERS **IN AUSTRIA**

Some decades ago the training and education of hospital managers was quite different than today. Many managers completed special educations for public companies or studied business and administration but there was no special training or education for hospital employees and managers. This lack of appropriate education inspired some engaged hospital managers to find a solution to this problem together with colleagues of the Association of Austrian Hospital Managers. Over several months they created a project in this context that included adequate training for hospital managers to better fulfill their duties. After this period of organisation, it was implemented as a pilot project.

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The Foundation of the Austrian Institute of Healthcare

After this successful beginning the Association of Austrian Hospital Managers decided to found its own establishment for training and education and consequently named it the Austrian Institute of Health Care Management (AIH). The general objectives were to offer training and education related to practice for employees and managers of healthcare organisations and to offer these programmes at the lowest price possible so that as many people as possible could take advantage of the courses.

More than thirty years ago, on December 21st 1982, the foundation of the AIH was accredited. The general assembly of members is the same as the general assembly of the Association of Austrian Hospital Managers. So the two are closely connected. Furthermore there is a managing-committee with a chairman, a secretary, a treasurer and also deputies of these three roles.

The Activities of the AIH

The general assembly decides general rules of activities and elects the members of the managing-committee. The committee decides on the programme of training and education, its contents and leaders, who are also experienced practitioners from healthcare organisations.

The leaders of training and education courses organise them in detail, engage excellent lecturers from universities or practitioners from healthcare organisations, hold examinations and after many other activities they hand the well-earned certificates out to the course participants.

More than twenty years ago a cooperation with the Vienna University of Economics and Business was decided. A scientific leader from the university contributes his knowledge to organise the training and education. Participants with a university degree have the opportunity to do a follow-up post-graduate study at the university.

In addition to the high-grade university study for managers, many other training and education programmes are offered for employees and managers of healthcare organisations. These are common courses for all healthcare professionals, for example a human resources management course, or special programmes for specified professionals, for example controller, buyer, secretaries, cooks, engineers and others.

Certified Course for Hospital Managers

This is an excellent course of management education for active managers and managers of the future for all healthcare professionals. A following post-graduate study at the university is possible.

The course takes two and a half years with each semester as a two week block allowing managers to continue with their day jobs. In total the duration of the theoretical education is about 60 days. The course participants have to complete ten examinations and three theses successfully, one of them as a master thesis. The universitary degree confirms 64 ECTS-points.

Content of the Course of Certified Hospital Managers

The subjects microeconomics, health economics, international healthcare systems comparison and public health are part of a common knowledge transfer for healthcare systems and economics. Furthermore the most important basic legal knowledge for hospital managers is imparted.

Controlling, cost accounting, financing and bookkeeping are useful subjects for daily business of hospital managers. Managers of all healthcare institutions also need training in communication, leadership, human resources management and teamwork.

The education is completed with the subjects hospital organisation, marketing and public relations, computer science, project management, quality and process management, basics of medicine and care, ethics, nutrition science, hospital hygiene, planning and building of hospitals, hospital technologies and facility management.

In writing the thesis, participants develop skills in scientific research and a study trip to another country ensures students learn about foreign healthcare systems, their structure and financing.

Summary

Since more than thirty years around 400 highly qualified managers of healthcare organisations, mainly hospital managers, have been successfully trained by the Austrian Institute of Health Care Management. Additionally thousands of employees and other managers of healthcare organisations are educated in common and special courses.

All course participants consider the training and education programmes as important qualifications for their jobs. Some of them get involved later with the AIH as leaders of courses or lecturers and transfer their knowlegde in addition to their wide professional experience.

Therefore a circuit of knowlegde transfer has been developed with a perfect update of the necessary knowledge due to the constantly changing conditions of hospital management – a perfect knowledge management.

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VALUE ADDING MANAGEMENT **OF HOSPITAL REAL ESTATE**

Balancing Different Stakeholder Perspectives

By Johan van der Zwart and Theo van der Voordt

Real estate is one of the resources that organisations can use to attain organisational goals and to add value to the organisation. Due to a move towards less governmental support in favour of increasing entrepreneurship, Dutch hospitals are becoming more responsible for their own building investment decisions. This is happening in other European countries as well and is visible in the third wave of healthcare reform (Cutler, 2002) in which market incentives play an important role to reduce medical expenses. Integral pricing of diagnosis-treatment combinations including building costs is an important part of the new Dutch healthcare system to stimulate cost-effectiveness and to create market incentives. This changing context creates opportunities for the institutions but also new risks. As a consequence, Corporate Real Estate Management (CREM) of Dutch hospitals shifts to managing real estate as a strategic asset that should add value to the organisation like other resources such as budgets, human resources and technology. This requires a building strategy that is aligned to the organisational strategy.

Adding Value by Real Estate

Value as a concept originates from economy, with financial value being the trade-off between costs and revenues. Within economic literature, value for a customer is also defined as the preference of a customer for a product or service and the extent to which (the use of) the product meets the targets set by the customer (Woodruff, 1997).This definition presents value as subjective perception by a specific stakeholder, the customer.

In a broader sense, added value of real estate can be defined as the perceived contribution of the building to achieving the goals set by all stakeholders. Added value of real estate is as such a subjective concept related to different stakeholders such as policy makers, controllers, users, and technical managers, and their different perspectives on real estate. According to Den Heijer and De Jonge (2012) these perspectives on real estate can be classified into four categories (Figure 1).

Jensen, van der Voordt, and Coenen (2012) traced six different types of added value: use value (quality in relation to the needs and preferences of the users), customer/consumer/user value (the trade-off between benefits and costs for these stakeholders), economic/financial/exchange value (the economic trade-off between costs and benefits), social value (e.g. supporting positive social interaction or reinforcing social identity), environmental value (Green FM, environmental impact of FM), and rela-

Figure 1: Four perspectives on real estate (adapted from Den Heijer and De Jonge, 2012)

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VK ARCHITECTS & ENGINEERS: TRANSDISCIPLINARY PROJECT-BASED APPROACH

Each hospital is a unique ultra functional entity, where acute care and architecture meet to promote health and wellbeing.

With 60 years of experience and a proven track record as hospital designer, VK Architects & Engineers combines all the AEE disciplines (master planning, programming, architecture, structural engineering, building services, interior architecture, infrastructure, landscaping) with the knowhow, experience and approach of each hospital board of management. Based on the organisation structure of the individual hospital, the VK designs meet the specific efficiency requirements of each hospital.

Looking beyond the drawing board

However, a hospital design needs to present more than a casing for doctors and medical staff to work in. Foremost, it houses people that need healing. And although they greatly benefit from an efficient medical environment, it is clear that these patients also need a welcoming and reassuring environment. Evidence-based design is settled in .

Hospitals have come a long way since the 1970s and 1980s, when their sheer scale gave patient and visitor alike that sinking feeling. Today, not only do we preach efficiency and evidence-based design. We also look for ways to connect the hospital with the community, putting it in the centre of life. This approach will have the hospitals evolve from places for curing to institutions that promote health.

A design for each hospital ...

which is to say that VK does not produce the same design for every hospital. After all, it's not for us to say how you should run your hospital. Having designed and realised several new hospitals, expansions and renovations, VK encountered many approaches from many different hospital boards of management. This has led to varying design solutions, answering to different challenges, demands and needs.

The Hospital of Our Lady (Aalst, Belgium) and the General Hospital of Saint John (Bruges, Belgium) are typically hospitals that grew organically, leaving the management with an ill fitted and inflexible infrastructure. In both cases, VK proposed a master plan in close collaboration with the management and end-users, to transform these institutions into hospitals ready for the 21st century. Through renovations, conversions and expansions, both healthcare providers were able to rearrange circulation routes, medical departments and nursing units to their advantage. The Erasmus Hospital and University Hospital in Brussels are two other projects, where VK encountered the same issues and successfully proposed adequate solutions.

In other cases, VK is asked to design completely new hospitals for varying reasons. The General Hospital Delta (Oekene, Belgium, 722 beds) and Hospital Network Antwerp (Belgium, 550 beds) needed new facilities, as the existing infrastructure was too outdated and renovation too costly. The new facilities reflect their specific organisation of care and individual location, Oekene being a peaceful rural environment and Antwerp a dynamic city. Another healthcare institution, the General Hospital of Saint Martin (Mechelen, Belgium, 722 beds) is to unite 3 dispersed campuses.

In each of these projects, VK applied different care concepts, from pathological clustering to horizontal or vertical connectivity or a mix, depending on demand and need. But each time, the approach was identical: first listen to discover the client's needs and wishes, and then consult and advise accordingly.

As a committed hospital planner and designer, VK Architects & Engineers has gathered much experience and knowhow in order to advise and assist the client in his search for an optimal care and cure experience from all sides: patients, medical staff, doctors, visitors and the community at large. Only through a collective effort across all disciplines can we successfully design and realise hospitals for the next 50 years at affordable running costs.

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Attend the lecture by our Director Healthcare, Stéphane Vermeulen, "A public private partnership that works! A new campus for the Hospital Network Antwerp"
Hospital Build & Infrastructure Europe, Congress Center Hamburg – September 3rd, 14h30, Room 2 – visit our stand just in front of Room 2, 1st F)

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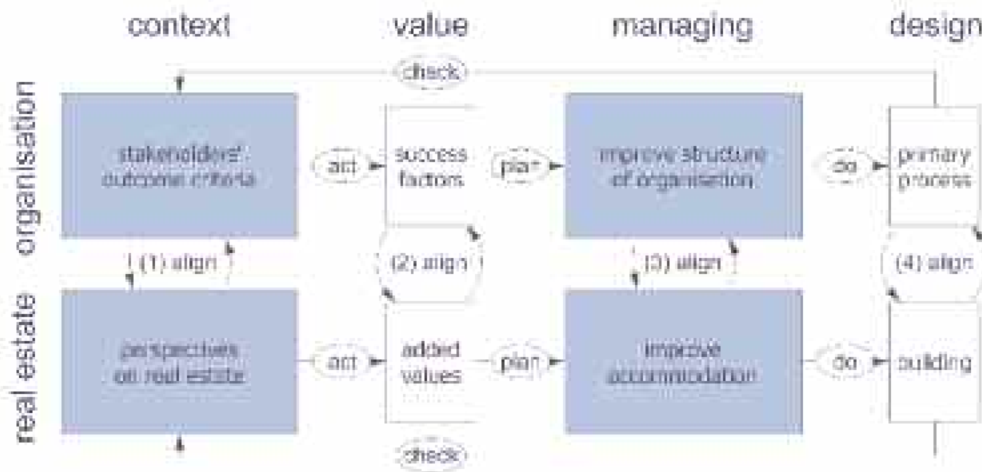

Figure 2: Value adding managing of real estate

tionship value (e.g. getting high-quality services or experiencing a special treatment) (Jensen et al., 2012b). This clearly shows the multi-dimensionality of the added value concept.

Aligning Real Estate with Organisational Strategy

As value depends on the perception of stakeholders, stakeholders should be able to define the desired values and assess whether the goals are attained. This process can be managed by using principles from healthcare quality management. Quality management is a cyclic process of defining, achieving and testing the pre-set goals. Important principles of quality management in healthcare are the plan-do-check-act cycle (Deming, 1950) and managing quality of care in connection to organisational structure, process and outcome criteria (Donabedian, 1988).

Both principles have been combined into a model for adding value management to align real estate strategy to organisational strategy and care processes (Figure 2). This model consists of four steps (context, value, managing and design) regarding both the primary process of the organisation and the building. The cycle starts with an evaluation of the organisation and its real estate based on an assessment of the internal and external context and stakeholders' outcome criteria derived from stakeholders' objectives. Successes and failures define plans for improvement. Implementation aims to result in an improved organisational structure and more effective and efficient primary processes, and real estate interventions that add value to the organisation and supports its performance. The final step is to check if the decisions regarding organisation and real estate result in improved outcomes for the stakeholders. When the context and/or stakeholders' objectives change, it can be necessary to conduct this quality assessment again. Important steps are firstly defining the desired values and checking whether these values are achieved in the building by design research and by Post-Occupancy Evaluation (POE) of the building-in-use.

real estate added value	definition
reduce costs	To reduce investment costs, capital costs, operational costs and other real estate related costs during the whole life cycle.
improve productivity	To increase production with the same amount of resources for production or the same production with less real estate through a more efficient use.
increase user satisfaction	To create functional, pleasant and comfortable places for all end users, such as visitors, customers and employees.
improve culture	To support shared values and behavioral rules.
increase innovation	To stimulate renewal and improvement of primary processes, products and services by real estate.
support image	To express corporate objectives by using real estate as a brand of organisational mission, vision and culture
improve flexibility	To incorporate flexibility and adaptability of real estate to facilitate future spatial, technical, organisational and juridical adjustments.
improve finance position	To attract external financing to reinvest in the primary process or to improve the overall financial position of the organisation by managing real estate as an asset.
controlling risks	To anticipate on real estate related technical and financial risks.

Figure 3: Nine added values of real estate from CREM literature

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Opportunities and Constraints

As part of a wider study into hospital real estate management in a changing context (Van der Zwart, 2011; Van der Zwart, Arekesteijn, & Van der Voordt, 2009; Van der Zwart, Van der Voordt, & De Jonge, 2010), fifteen interviews were conducted with CEOs and real estate project managers on opportunities and constraints of adding value by hospital real estate. All interviewees are involved in management of hospitals that constructed a new building in the period 2004 - 2012. Key points for discussion were the accommodation strategies of these hospitals and the role of added value of real estate during the life-cycle of the building. Three main questions in the interviews were:

- What are the key strategic objectives for the accommodation of your hospital?
- Which added values of real estate are prioritised?
- How are these values incorporated into the design of the hospital building?

Based on a literature review, nine added values of (hospital) real estate can be defined (Figure 3). These values were used as a reference for discussing the perception of added values of real estate in the building management and design of the interviewed hospitals.

According to the interviewees, the first priority of hospitals is to deliver good healthcare in a cost-efficient way. Real estate is secondary but at the same time an important resource to attain the organisational objectives and to optimally facilitate healthcare processes, effectively and efficiently. Being a resource for production, real estate is always examined upon its facilitating role of care processes and its impact on business economics. Supporting the primary process requires that the building is functional, attractive and comfortable. On the one hand the building has to support patient's needs and wellbeing. On the other hand the building has to be a pleasant and productive working environment for healthcare staff. Therefore, the building should support multidisciplinary and patient focussed working processes. Remarkably, although sustainability is being perceived as important and linked to corporate social responsibility, it is mainly assessed on the impact on investment and running costs. Five other main lessons emerged from the interviews are described below.

a. People are Key

Supporting innovation, patient and employee satisfaction and culture were highly prioritised by CEOs and real estate project managers. These values are related to the experience of the building by its users. Measures to stimulate innovation and improve organisational culture were linked to social interaction and communication by creating meeting places where healthcare professionals can exchange information and ideas. References were made to the use of innovative office concepts and creating a back-office for medical specialists. Patient satisfaction was often linked to hospitality, healing environment and the Planetree concept (www.planetree.nl) with the ultimate aim of contributing to the health and wellbeing of the patients.

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Figure 4: Added values of hospital real estate linked to four perspectives on real estate

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b. Alignment of the Building to Primary Processes

A general value is to provide optimal healthcare for a reasonable price. Related real estate values are increasing productivity and reducing costs. Reducing capital charges of real estate lowers the price of healthcare products and services. Optimising the flexibility and adaptability of the building are often applied to be able to continuously align the building to changing healthcare processes and to increase productivity in a changing context.

c. Priorities Depend on Building Phase

A number of added values of real estate such as the image of the building are difficult to customise after completion of the building and for this reason are highly prioritised in the initial phase and during the design of the building. Due to the static character of real estate, importance decreases once the building is finished. Controlling risk and using real estate as an asset are closely related to the physical appearance of the building and the location. These real estate characteristics determine largely the future-value of real estate and opportunities to facilitate changing user requirements and adaptive re-use.

d. Sector Dependent Definitions

The respondents interpreted user satisfaction as patient and employee satisfaction. Apparently, patient satisfaction and employee satisfaction are perceived as two distinct added values of real estate. The use of real estate to get a high return on investment – now and even more in the future - was not recognised as an important issue in the context of hospitals. Real estate choices as a means to increase finance possibilities appeared to be comparable with measures to controlling risk. Application of functional 'layers' by division of the building in a hot floor (operating theatres), office, hotel (bedrooms) and factory (laboratories) was often mentioned as a means to improve the marketability and future disposal of hospital real estate at the end of the functional life cycle.

e. Value for Different Stakeholders

The respondents were asked how added values of real estate were visible in the design of the hospital building. The responses varied from associations with regard to the concept of value adding, abstract visions on building to concrete design interventions. All these different responses are linked by the authors to four perspectives on real estate (Den Heijer & De Jonge, 2012): strategic, financial, functional and physical. In this way Figure 4 summarises the perception of added values of hospital real estate by the interviewees.

Concluding Remarks

The framework of nine added values linked to four stakeholder perspectives can be used as a reference in decision-making about hospital buildings at strategic and tactical levels. As such it provides input to the development and implementation of a professional building strategy and briefing, design and management of hospital buildings and other health facilities. The huge variety in associations regarding building solutions shows the need for a clear conceptual framework on added values of hospital real estate. Besides, the explorations of adding value by real estate might be applicable in other sectors as well.

A next step could be to operationalise the added values in depth and to develop measurement tools on different scales: a real estate portfolio, buildings, departments and places. A first step has already been made with the development of a design assessment tool for newly built hospitals. This "research by drawing" explores how different added values of real estate can be made visible in the floor plans and cross-sections of a hospital building in the design phase. This study will be published in December 2013 in the PhD-thesis of the first author on value adding management of hospital real estate in a changing context.

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AVOIDING COMMUNICATION BREAKDOWNS IN NURSING CHANGE OF SHIFT HANDOVERS

By John S. Carroll, Michele Williams, Theresa M. Gallivan

"Failures of communication, particularly those that result from inadequate 'handoffs' between clinicians, remain among the most common factors contributing to the occurrence of adverse events" (Bates & Gawande, 2003; p. 2527). Communication breakdowns were implicated as root causes in over 80% of the sentinel events voluntarily reported by hospitals in 2010. Regardless of whether communication occurs within professions or across professional boundaries, it is challenging to get the right information to the right people at the right time to make the right interpretation and take the right actions. In this paper, we examine nursing change of shift handovers ("handoffs" in the US) in a large teaching hospital and find some valuable lessons for improving communication.

Shift report handovers require both technical and relational communication, that is, the transmission of information about a patient relevant to their condition and care during the next shift supported by interpersonal behaviours that help create effective conversations and productive relationships among co-workers. Although it seems obvious what a "good handover" should include, the research literature offers no uniform or standardised way to give report.

Little guidance is available for creating perceptions of psychological safety, trust, and respect that encourage sharing and learning, and positive energy that combats burnout. For example, both the Joint Commission Handbook and the collaborative WHO-JCAHO brochure advocate that handovers include the opportunity for questioning. However, when relational communications are poor, a ritual request for "any questions?" is not likely to improve handovers. Too many questions, irrelevant questions, or mistimed questions can be annoying. Efforts to standardise handovers could discourage questions, minimise attention to unusual information, and reduce opportunities for perspective-taking, trust-building, and learning.

Interviews, Surveys, and Observations

We studied two general medical/surgical units of a large, urban teaching hospital. Each unit had approximately 25 beds and 6-9 nurses per shift. Patients needed high levels of nursing care: 90% or more of the patients whose handovers we studied required medication management, fluid management, pulmonary management, cardiac and neurologic management, educational intervention, and/or assistance with activities of daily living.

To provide background information about shift report practices, we first conducted individual interviews with 12 nurses, seven of whom had six or more years of experience as an RN, on one of these units. These half-hour interviews asked each nurse to recall and describe a recent handover that "had gone well" and then a recent handover that "had not gone as well." We then asked the nurse to give his or her thoughts about what makes for a good handover.

Following these interviews, we collected five kinds of data from the other unit: (1) a survey to 28 of the 34 nurses in the unit, including demographics and background information, (2) audio taping and transcription of 77 handovers during 40 shift changes (e.g., coded for number of questions asked by each nurse), (3) direct observation of nonverbal behaviour during these handovers (e.g., eye contact, smiling), (4) post-handover questionnaires to nurses asking about handover effectiveness and whether the nurse knew the patient, and (5) coding, by an advanced practice RN, of clinical problems from the past 48 hours of nursing records associated with these patient handovers. The observed shift changes took place in a nurses' lounge in which the nurses congregated to give report at 7am, 3pm, 7pm, and 11pm (most nurses had 12-hour shifts from 7 to 7 but some had 8-hour shifts). Each outgoing nurse handed over 3-5 patients, generally 1-2 to each of multiple incoming nurses.

Describing Handovers

Interviews on the first unit revealed considerable variability of handovers across units, nurses, and prior experience with the patient. Nurses told us that medical units differed in the availability and size of rooms in which to give report, and that nurses in another medical unit gave report via tape recorder rather than face-to-face. Individual nurses also had their own way of giving report, often from patterns learned in nursing school (e.g., head to toe).

On the unit we observed, handovers averaged 5.4 minutes per patient, with a range from two to 13 minutes. Typically, the incoming nurse sat at a table reading from the clinical record in a looseleaf binder and taking personal notes on a single sheet of paper that was later folded and carried during the shift. The outgoing nurse sat or stood next to the incoming nurse and spoke from memory and/or from her or his own personal notes about the patient. Outgoing nurses usually were made aware at the start if the incoming nurse knew the patient, either by asking or when incoming nurses volunteered that information. The outgoing nurse did most of the talking, looking toward the incoming nurse, who was writing notes and scanning the clinical record. From time to time there would be a notable bit of information that would cause the incoming nurse to look up and make eye contact, or the outgo-

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ing nurse would signal with a louder voice tone or by touching the incoming nurse, that the incoming nurse should attend to this information. Over one-third of outgoing nurses asked at the end if there were any questions. Incoming nurses asked 80% of all questions.

The Handover Effectiveness Puzzle

Incoming and outgoing nurses rated handover effectiveness on the post-handover questionnaire. These self-reported ratings of effectiveness were quite high (means of 6.72 and 6.49 on 7 point scales where 7 = strongly agree), but there was no relationship between the ratings by incoming and outgoing nurses (r = -.07). This poses the handover effectiveness puzzle: ***what is handover effectiveness such that incoming and outgoing nurses don't agree about it?***

We had one objective measure of handover effectiveness. Advanced practice RNs coded active medical issues from the past 48 hours of the nursing records, and these were compared with the extent of discussion of these medical issues in the handover transcripts. Of the 263 active medical issues identified by our coders from the clinical records, one-third were not mentioned in the handovers, and only one-quarter of the active medical issues were presented adequately. For each handover, we calculated an effectiveness score by averaging adequacy of discussion across all active issues. But this effectiveness score did not correlate with ratings of effectiveness either by incoming or outgoing nurses, deepening the effectiveness puzzle.

However, when we looked at the post-handover questionnaire, observed nonverbal behaviours, and coded transcripts, a fascinating pattern of differences between incoming and outgoing nurses emerged. First, for both incoming and outgoing nurses, effectiveness correlated strongly with three questions about the "Positive Relationship" between the nurses: "I felt positive about this handover" (r = .73 and .66), "I felt comfortable enough to speak up if I perceived a problem during this handover" (r = .70 and .62), and "I felt a positive connection with the other nurse during this handover" (r = .66 and .59). These were stronger than the correlations with "I had all the information I needed" (r = .52 and .49), indicating that technical communication was important but not as important as the overall sense of the relationship during the handover.

But if effectiveness is strongly based on relational communication between nurses, why do incoming and outgoing nurses perceive the same handover so differently? The second piece of evidence is that incoming nurses found handovers with more eye contact and more questions to be more effective, but outgoing nurses found handovers with more eye contact and more questions to be less effective (and more emotionally draining). This is supported by comments by 4 of the 12 interviewees who asserted that a good report involves fewer questions, for example, "you know you have given a good report when the nurse doesn't have to ask many questions."

The third piece of evidence surfaced in our interviews: nine of the 12 nurses mentioned that reports are shorter if the incoming nurse already knows the patient. For example, one nurse stated, "if she knows the patient you don't go to every single detail, you just give an update." Consistent with the interviews, our direct observations showed that outgoing nurses shortened their handover presentations when the incoming nurses knew the patient. In particular, when we split incoming nurses by experience level as RNs (five years or less vs. six years or more), we found that only the more experienced nurses were making these adjustments. Experienced nurses giving handovers to incoming nurses who did not know the patient gave more thorough handovers (i.e., covered more active issues) and received fewer questions (a little over two per handover, on average) from incoming nurses, compared to experienced nurses who gave less thorough handovers to incoming nurses who knew the patient, presumably because they thought the incoming nurses needed less information. Yet, the incoming nurses asked more than five times as many questions (12 per handover) when they knew the patient. Less experienced nurses giving handovers gave an intermediate level of detail and received an intermediate number of questions (5-6 per handover), and this did not depend on whether the incoming nurse knew the patient.

Table 1: The Effect of Outgoing Nurse Experience and Incoming Nurse Knowledge of the Patient on Adequacy of Handover and Number of Questions Asked by Incoming Nurse

Outgoing Nurse Experience as RN	Incoming Nurse Knowledge of the Patient	
	Doesn't Know Patient	**Knows Patient**
1-5 years	**2.44** Adequacy of handover (n=23)	**2.46** Adequacy of handover (n=20)
	3.65 Incoming nurse questions (n=23)	**3.81** Incoming nurse questions (n=21)
6-13 years	**2.76** Adequacy of handover (n=7)	**2.20** Adequacy of handover (n=6)
	2.14 Incoming nurse questions (n=7)	**12.50** Incoming nurse questions (n=6)

So What?

The concept of "an effective handover" is surprisingly elusive. Neither incoming nor outgoing nurses seemed to equate handover effectiveness with our expert coding of adequacy, which is the factual clinical content of the handover. The nurses' ratings of handover effectiveness were much more strongly associated with the experience of a positive relationship during the handover.

Our results show that incoming and outgoing nurses experience the handovers very differently. Incoming nurses appreciated more connection and parity. For example, a less experienced nurse in our preliminary interviews said that handovers were "good when they are good communicators, someone who looks you

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This issue our supplement focuses on oncology. As usual, there is one copy for you and one to pass on to the relevant department. Ulrich Jaehde et al focus on pharmaceutical care for patients with breast and ovarian cancer, highlighting how individualised patient care has the potential to reduce the incidence of adverse drug events. We also showcase the key oncology presentations from EuroMedLab 2013 including genetic approaches to the detection and diagnosis of certain cancers. The news section brings you the latest news on the "Intelligent Knife" that tells surgeons which tissue is cancerous.

PHARMACEUTICAL CARE FOR PATIENTS **WITH BREAST AND OVARIAN CANCER**

Therapeutic strategies for cancer patients are highly individualised and include a variety of drugs with different pharmacological mechanisms and targets. As anticancer therapy is often associated with severe adverse drug events, there is an increasing demand for effective supportive care strategies preventing or ameliorating drug-induced toxicity. In the last decade, several evidence-based clinical practice guidelines have been developed for supportive care. Still, adverse drug events range high among the most feared consequences associated with antineoplastic therapy. Chemotherapy-induced nausea and vomiting is considered to be substantially distressing for the patients and should be addressed by oncology care services. However, Mertens et al. showed that physicians do not always adhere adequately to antiemetic prescribing guidelines, indicating that the sole distribution of guidelines does not lead to a better control of nausea and vomiting. The situation improved after nurse practitioner antiemetic prescribing was introduced.

It is widely accepted that multidisciplinary care models have a high potential to enhance patient safety. Considering the fact that patients with solid tumors are mainly treated in outpatient settings, structured patient counseling on their individual chemotherapy including medication reconciliation may be of particular benefit to patients experiencing transitions in care. Pharmaceutical care is a concept, which may contribute to this approach. It is defined as the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life. The addition of a pharmacist to the healthcare team may ensure appropriate medication use and maximise adherence, as recently stated in a NCCN Task Force Report. As antineoplastic drug therapy follows established protocols, pharmaceutical care models in oncology aim at minimising treatment-related toxicity and, therefore, focus on optimising supportive care strategies. Moreover, they include individualized patient information on adverse events as this is of great importance for many patients. Different coping strategies are associated with different needs regarding amount and depth of information. Therefore, patient satisfaction and the capability to initiate self-care behaviour depend on the quality of individually tailored information.

New treatment strategies and care models are increasingly evaluated by means of patient-reported outcomes (PROs). In oncology, self-reporting of toxicity symptoms has successfully been established, which may provide some advantages over reporting by clinicians. The aim of this study was to explore the feasibility and potential of pharmaceutical care for breast and ovarian cancer patients treated in outpatient settings in Germany by measuring PROs. The pharmaceutical care model included the use of supportive medication according to evidence-based treatment guidelines and patient counseling on the management of treatment-associated adverse events.

Methods

Patients and setting

Six academic- and community-based outpatient clinics as well as two primary care oncologists in West and North Germany participated in the study. Patients with a diagnosis of breast or ovarian cancer receiving their first chemotherapy were consecutively recruited in each centre. All standard adjuvant and neoadjuvant chemotherapy regimens for the treatment of breast and ovarian cancer were allowed. Patients had to be at least 18 years of age, give their written informed consent, and be able to speak, read, and write German. Patients were excluded from the study if they had diseases or mental states which impeded that the patient completely understood the provided information on the study or if the patient had an impaired capability of reading and completing questionnaires self-administered. Written informed consent was obtained from all participating patients prior to any study-related procedures.

Study design

The study was conducted as a prospective, multicentred cohort study with a control group. At each centre, patients were first recruited into the control group and then into the intervention group. This nonrandomised design was chosen to avoid contamination bias caused by inevitable interaction between patients of the two groups and learning effects among the healthcare professionals. The study was approved by the ethics committee of the Medical Association of North Rhine, Germany and registered at the German Clinical Trials Register (DRKS00000765).

Pharmaceutical care intervention

Patients in the control group received their treatment according to standard practice in Germany. They did not have regularly scheduled appointments with a pharmacist and were not exposed to pharmaceutical care. Patients in the intervention group had regular appointments with the pharmacist providing pharmaceutical care. The medication was systematically documented in order to check for potential drug–drug interactions. The intervention consisted of two major components: the application of an algorithm for evidence-based antiemetic prophylaxis and treatment and medication counseling of the patients before and during their courses of chemotherapy.

The algorithm was developed by multidisciplinary consensus. The pharmacist drafted a

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tentative algorithm based on current evidence-based guidelines which served as a basis for discussion with the participating oncologists. During this discussion, the algorithm was modified until a consensus was reached. After implementation, the physicians chose the antiemetic prophylaxis for the patients of the intervention group according to the algorithm. Each prescription was checked by the pharmacist for adherence to the algorithm. Modifications were proposed if required. However, each physician had the final decision responsibility on whether the prescription was modified or not.

In addition, the patients were counseled regarding the optimal use of the supportive medication. Patients received general oral and written information about chemotherapy, potential adverse effects, and preventative strategies. In particular, patients were informed by the pharmacist about the antiemetic treatment, the importance of consequent prophylactic drug intake, the use of rescue medication, the mode of administration, and the correct dosing.

Endpoints

"Complete response (CR) emesis," defined as no emetic episode on the 5 days following chemotherapy, was the primary endpoint of the study. It was measured using a patient diary developed by Freidank, which covered both the acute and delayed phases of nausea and vomiting. Patients were asked to report the emetic episodes and classify the experienced nausea from degree 0 to 4 ("no nausea" to "severe nausea, which makes everyday life impossible"). Nausea and vomiting were documented after each cycle of chemotherapy in order to allow longitudinal evaluation of the data.

The severity of nausea and the frequency of vomiting were measured as secondary endpoints using the sum scores of the reported degrees of nausea and the number of emetic events, respectively, divided by the number of documented cycles in the acute and delayed phases. Another secondary endpoint was health-related quality of life. It was measured with the validated German version of the cancer-specific EORTC QLQ-C30 (version 3.0) before the beginning, in the middle (after the second cycle for patients receiving four cycles of chemotherapy or after the third cycle for patients receiving six cycles of chemotherapy), and at the end of treatment (after the fourth or sixth cycle, respectively). For the second and third measurement, patients were asked to complete the QLQ-C30 questionnaire 1 week after chemotherapy administration. The scale values of the questionnaire were calculated according to the scoring manual provided by the EORTC. Then, the absolute changes in the different scales over the treatment period compared to baseline were calculated, after reassuring that there were no differences between the groups at baseline.

Patient satisfaction with information on cancer treatment was measured as a secondary endpoint using the Canadian PS-CaTE questionnaire which had been translated into German and tested for its psychometric properties before. Patients were asked to fill in the questionnaire after the last chemotherapy cycle. The questionnaire can be divided into four subscales and one global scale. The scale values were calculated as described by Liekweg et al.

Sample size calculation

The sample size calculation was performed by power simulation for the primary endpoint because, so far, no algorithms or programmes are available to calculate the sample size for nonparametric analysis of variance. For this purpose, with different combinations of the group size (n), the prevalence in the control group (p), and the expected difference (), 10,000 simulations were performed at a time and the power was calculated for a type 1 error α=5%. The simulations were performed by S-Plus® 2000. With a sample size of n=50 per group and a prevalence of CR emesis of 40% to 60% in the control group, an improvement of =15% in the intervention group can be detected with a power (1-β) of more than 99%.

Statistical methods

SPSS version 12.0 and SAS version 9.1 were used for the statistical analyses. In order to evaluate the primary endpoint "CR emesis," the two groups were compared using the Kaplan–Meier analysis and the log-rank test as well as Fisher's exact test for individual cycles. For the other endpoints, Mann–Whitney U test was used to compare both groups. As this was a longitudinal analysis with multiple measurements over time, a nonparametric factorial analysis for repeated measurements was performed to compare endpoints between groups over time, using treatment group as whole plot factor and time as split plot factor

This analysis is based on ranks and assumes that measurements within one group at the same time point follow the same unspecified distribution. Measurements within one person over time may be correlated; however, no correlation structure was specified. p values <0.05 were considered statistically significant. Moreover, a logistic regression was performed using aprepitant treatment and pharmaceutical care as independent variables in order to distinguish the influence of both interventions on CR emesis. The results are displayed with odds ratios, their 95% confidence intervals, and the p value.

Patient population

Forty-eight patients of the control group and 50 patients of the intervention group were included in the analysis.

Complete response emesis

Pharmaceutical care led to a significant improvement of the primary endpoint "CR emesis" during the first four cycles of chemotherapy. The nonsignificant results in cycles 5 and 6 are probably due to the small number of patients receiving these cycles. The longitudinal nonparametric analysis of variance according to Brunner confirmed the cyclewise results with a p value <0.001. Over the whole period, 35.4% (17 of 48) of patients in the control group had a CR compared to 76.0% (38 of 50) in the intervention group (p<0.001). Thus, pharmaceutical care led to an absolute risk reduction for experiencing emetic episodes of 40.6%, which associates with a number needed to treat of 3.

Severity of nausea and frequency of vomiting

In the intervention group, the median severity of acute nausea was reduced by 39.4% compared to the control group. Median severity of delayed nausea was reduced by 34.5%. However, the differences between groups were not statistically significant. In contrast, there was a significant reduction in the frequency of emetic episodes.

Quality of life

The EORTC QLQ-C30 questionnaire is divided into global health as superior measure as well as functioning and symptom scales. In particular, global health, social functioning, as well as the symptom scales "nausea and vomiting," and "appetite loss" were positively affected by pharmaceutical care. When the absolute change was calculated only from baseline to the middle of chemotherapy the scale "pain" was also significantly affected. The longitudinal evaluation over time showed significant differences for the symptom scales "pain" (p=0.023) and "appetite loss" (p=0.009).

Patient satisfaction with information

The PS-CaTE questionnaire can be divided into four subscales (satisfaction with information on cancer treatment, side effects, complementa-

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ry treatment options, and satisfaction with information sources) and global satisfaction as superior measure. Patient satisfaction with information was significantly improved upon pharmaceutical care. The median values on a five-point Likert scale (1=very dissatisfied to 5=very satisfied) could be improved by 10% for cancer treatment, 7.5% for side effects, 5% for complementary treatment options, 12.5% for information sources, and 12.8% for global satisfaction (all calculated as relative changes), respectively. Except for the complementary treatment options scale, all improvements were statistically significant.

Influence of aprepitant

During the course of the study, aprepitant was introduced for the prevention and treatment of nausea and vomiting and was integrated into the standard guidelines. Due to the sequential design, a higher proportion of patients of the intervention group were treated with aprepitant compared to the control group (35 of 50 vs. 5 of 47 patients). In order to discriminate between the influence of aprepitant and pharmaceutical care, a logistic regression analysis was performed using the inclusion method.

The model revealed a statistically significant influence of pharmaceutical care on CR emesis, whereas treatment with aprepitant showed no significant influence ($p=0.003$ vs. $p=0.670$). The odds ratio for the influence of pharmaceutical care was 5.4 (95% CI, 1.8–16.5) compared to 1.2 (95% CI, 0.5–3.3) for treatment with aprepitant. Thus, patients have a fivefold higher chance of showing a CR when changing from control to intervention group, and treatment with aprepitant did not bias the results to a significant extent.

Discussion

Pharmaceutical care in oncology aims at reducing treatment-associated toxicity and at improving patients' quality of life. During this project, a specific pharmaceutical care model for breast and ovarian cancer patients was implemented, including optimisation of supportive medication and patient counseling on the management of treatment-associated adverse effects. The study revealed a benefit for the patients receiving pharmaceutical care based on improved PROs.

Strengths and limitations

The major strength of this study is that it was entirely conducted under real-life conditions. A control group design was selected as the most suitable and generally accepted method. However, a number of limitations have to be considered before interpreting the data. Besides the relatively small number of patients, a nonrandomised study design was chosen. Since pharmaceutical care must be regarded as a highly complex intervention, some limitations with regard to the study design had to be accepted.

A parallel design with randomisation could have led to significant contamination bias because of the interaction that occurs between clinic patients. In oncologic practices and outpatient clinics, patients have many possibilities of meeting each other and talking about the procedures and quality of care provided. It would have been impossible to avoid that patients of the control group would have noticed that other patients receive more information and attention than they do. Since especially cancer patients increasingly demand attention from healthcare professionals, a stringent refusal of pharmaceutical care to some of the patients would have been neither practical nor ethical. In addition, since blinding is not possible with this intervention, healthcare professionals might have adopted an approach to patient follow-up counseling that was dependent upon the intervention received. Therefore, we decided to recruit first the control group and subsequently the intervention group in each participating centre.

Using a sequential enrolment instead of randomisation led to some differences between the control and the intervention group that might potentially have influenced the results. First of all, the control group had a median age of 54.4 years compared to 49.6 years in the intervention group. Studies demonstrated that younger age is associated with a higher risk of vomiting. Thus, the significantly better "CR emesis" in the intervention group was not positively biased by this difference. The second major difference can be found in the treatment regimens that have been used. Since the patients were approached consecutively, the observed difference in drugs and dosages is simply random and partly caused by the prior recruitment of the control group. Whereas the majority of the control group was treated with a combination of two drugs (54.2%), the majority of the intervention group received a combination (30%) or sequential treatment (34%) of three drugs. However, in both groups, the chemotherapy regimens were all classified as "moderately emetogenic" based on evidence-based guidelines. Therefore, the emetic risk can be regarded as comparable in both groups.

Nausea and vomiting

The primary endpoint "CR emesis" was significantly improved in the intervention group (35.4% of the control group vs. 76.0% of the intervention group, $p<0.001$). This improvement can be accounted to the different components of the intervention. First of all, the intervention included the suggestion of a standardised, evidence-based antiemetic prophylaxis. Second, the intervention aimed at improving patients' knowledge and discernment in the therapy and thus enhancing the concordance to the suggested prophylaxis. Especially for patients receiving a moderately emetogenic chemotherapy, antiemetic guidelines are often not applied and implementation of guidelines into daily clinical practice is difficult.

The main difference of our algorithm to the previous practice in the participating centres was the reinforcement of a prophylactic antiemetic treatment and the evidence-based prevention of delayed emesis. Prior to the pharmacists' intervention, the antiemetic treatment for the delayed phase was prescribed on demand. In addition, corticosteroids were rarely used and there was a widespread use of 5-HT3 antagonists for the prevention of delayed emesis. However, since this study was an observational study, it was not mandatory for treating physicians to follow the proposed algorithm for antiemetic prophylaxis and some deviations were still observed. Some physicians were reluctant to prescribe oral dexamethasone treatment on days 2 and 3 of the first cycle and only added dexamethasone in subsequent cycles of chemotherapy if the patient had major problems with nausea and vomiting. 5-HT3 antagonists were further used instead, even though this treatment has only limited efficacy in the prevention of delayed emesis. One could speculate that the consequent adherence to the guidelines would have resulted in even higher rates of CR in the intervention group and a more cost-effective treatment as dexamethasone is substantially less costly than 5-HT3 antagonists.

Nevertheless, even though physicians deviated from the agreed antiemetic algorithm in some patients of the intervention group, the majority received a guideline-conforming prophylaxis which can be regarded as improvement compared to the control group.

One major difference between the control group and the intervention group was the use of the NK1 receptor antagonist aprepitant. This drug was introduced during the course of the study and was rapidly implemented into international treatment guidelines for chemotherapy-induced nausea and vomiting. Due to the later recruitment, a significantly larger propor-

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tion of patients of the intervention group was treated with aprepitant compared to the control group (35 vs. 5 patients). Therefore, we wanted to explore whether the intervention itself and not the use of aprepitant was responsible for the observed difference between the intervention group and the control group. The logistic regression performed showed that treatment with aprepitant as influencing factor alone did not result in statistically significant differences between the control group and the intervention group, whereas pharmaceutical care had a significant influence and resulted in an about five-fold increase of "CR emesis." Comparing the results of the intervention group with the results of a study evaluating the efficacy of aprepitant in breast cancer patients receiving moderately emetogenic chemotherapy, the latter patient group showed a "CR emesis" of 51% compared to 76% in our study. This supports the conclusions from the logistic regression that the improvement of the intervention group is also a result of pharmaceutical care and not only the use of aprepitant. However, the question remains whether pharmaceutical care is still effective when NK1 antagonists are widely used. In a recent study in two German university hospitals, a structured nursing intervention did not result in a significant reduction of nausea and emesis. The authors conclude that the impact of information and counseling programmes on acute and delayed nausea and emesis might be limited when antiemetics are properly used. Future studies will have to clarify this aspect.

In contrast to vomiting, patients of the intervention group did not show significant improvement regarding the severity of nausea both in the acute and delayed phases. A trend towards better outcomes in the intervention group could be observed; however, this did not reach statistical significance.

Quality of life

Health-related quality of life includes physical, psychological, social, and functional dimensions. The results for quality of life showed that global health as a determinant of overall quality of life was significantly improved in the intervention group. Furthermore, symptom scales such as "appetite loss" and "nausea and vomiting" showed significantly better results in the intervention group. These symptoms are closely linked to the antiemetic outcome. Improvement in these symptom scales are an indicator for a better overall quality of life.

Quality of life as a multidimensional construct is subject to large variability and various influencing factors. Different personalities (e.g., optimistic or pessimistic) as well as coping strategies affect quality of life substantially. Therefore, with the limited patient number in our study, it was difficult to observe statistically significant differences.

Patient satisfaction with information

Significant improvements in the intervention group were measured for the global scale and all subscales of the PS-CaTE questionnaire, except for information regarding complementary treatment options. These results demonstrate that the pharmaceutical care model may help increase the knowledge of the patients on different aspects of their treatment such as side effects. In contrast, patients were not actively informed on options for complementary treatments as evidence-based recommendations are lacking, which might explain the nonsignificant results for this scale. In general, information needs of cancer patients change with the course of their treatment.

For example, patients who were just recently diagnosed look for information on efficacy of treatment, potential side effects, supportive strategies, and consequences for their family life. The advantage of our pharmaceutical care model is that it follows a needs-based approach with regard to patient information.

Further Considerations

When interpreting the data, one has to keep in mind that social effects may have influenced the data. It can be observed that patients who participate in studies regardless of the treatment and whether they are assigned to the control or intervention group seem to benefit. The manner in which patients are cared for in terms of emotional and cognitive care can influence the treatment outcome. It might be interesting to investigate the relevance of such "context effects" on the outcome of pharmaceutical care in appropriate studies.

Outlook

This study was conducted to explore the feasibility and the potential of a pharmaceutical care model by measuring PROs. With the study design selected, it was, however, not possible to fully evaluate the effectiveness of pharmaceutical care for cancer patients. Nevertheless, our study showed that pharmaceutical care models may help improve the quality of cancer care and are worth being investigated in larger trials involving a higher number of participating centers. In this case, patients in different oncologic outpatient clinics or practices could be randomly allocated to a particular intervention. Such "cluster randomised trials" are one solution to the problem of contamination of the control group and are increasingly used to evaluate complex interventions in healthcare.

Moreover, the cost–benefit ratio of pharmaceutical care should be assessed in future studies in order to enforce the implementation of this intervention in clinical routine. Further studies and advanced activities in this area will certainly strengthen multidisciplinary and intersector collaboration in daily routine, which is urgently warranted to enhance patient safety in cancer therapy.

Conclusions

In conclusion, our results suggest that pharmaceutical care for patients with breast and ovarian cancer is feasible and may have an impact on PROs as particularly indicated by significant improvements of the antiemetic response and patient satisfaction. Although there is no doubt that a higher awareness of drug-related problems is beneficial, final conclusions on the effectiveness of a new healthcare intervention can only be drawn when studied in a randomised trial. Therefore, our data may serve as a valuable basis for planning a large randomised multicentre trial.

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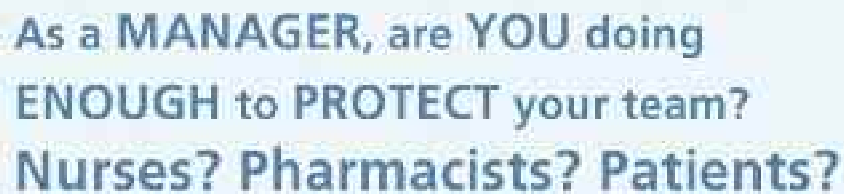

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THE "INTELLIGENT KNIFE" TELLS SURGEON WHICH TISSUE IS CANCEROUS

Scientists have developed an "intelligent knife" that can tell surgeons immediately whether the tissue they are cutting is cancerous or not.

In the first study to test the invention in the operating theatre, the "iKnife" diagnosed tissue samples from 91 patients with 100 percent accuracy, instantly providing information that normally takes up to half an hour to reveal using laboratory tests.

The findings, by researchers at Imperial College London, have been published in the journal Science Translational Medicine. The study was funded by the National Institute for Health Research (NIHR) Imperial Biomedical Research Centre, the European Research Council and the Hungarian National Office for Research and Technology.

In cancers involving solid tumours, removal of the cancer in surgery is generally the best hope for treatment. The surgeon normally takes out the tumour with a margin of healthy tissue. However, it is often impossible to tell by sight which tissue is cancerous. One in five breast cancer patients who have surgery require a second operation to fully remove the cancer. In cases of uncertainty, the removed tissue is sent to a lab for examination while the patient remains under general anaesthetic.

The iKnife is based on electrosurgery, a technology invented in the 1920s that is commonly used today. Electrosurgical knives use an electrical current to rapidly heat tissue, cutting through it while minimising blood loss. In doing so, they vaporise the tissue, creating smoke that is normally sucked away by extraction systems.

The inventor of the iKnife, Dr Zoltan Takats of Imperial College London, realised that this smoke would be a rich source of biological information. To create the iKnife, he connected an electrosurgical knife to a mass spectrometer, an analytical instrument used to identify what chemicals are present in a sample. Different types of cell produce thousands of metabolites in different concentrations, so the profile of chemicals in a biological sample can reveal information about the state of that tissue.

The iKnife works by matching its readings during surgery to the reference library to determine what type of tissue is being cut, giving a result in less than three seconds.

In the new study, the researchers first used the iKnife to analyse tissue samples collected from 302 surgery patients, recording the characteristics of thousands of cancerous and non-cancerous tissues, including brain, lung, breast, stomach, colon and liver tumours to create a reference library. The iKnife works by matching its readings during surgery to the reference library to determine what type of tissue is being cut, giving a result in less than three seconds.

The technology was then transferred to the operating theatre to perform real-time analysis during surgery. In all 91 tests, the tissue type identified by the iKnife matched the post-operative diagnosis based on traditional methods.

While the iKnife was being tested, surgeons were unable to see the results of its readings. The researchers hope to carry out a clinical trial to see whether giving surgeons access to the iKnife's analysis can improve patients outcomes.

"These results provide compelling evidence that the iKnife can be applied in a wide range of cancer surgery procedures", Dr Takats said. "It provides a result almost instantly, allowing surgeons to carry out procedures with a level of accuracy that hasn't been possible before. We believe it has the potential to reduce tumour recurrence rates and enable more patients to survive."

Although the current study focussed on cancer diagnosis, the iKnife can identify many other features, such as tissue with an inadequate blood supply, or types of bacteria present in the tissue.

Professor Jeremy Nicholson, Head of the Department of Surgery and Cancer at Imperial College London, who co-authored the study, said: "The iKnife is one manifestation of several advanced chemical profiling technologies developed in labs our that are contributing to surgical decision-making and real-time diagnostics. These methods are part of a new framework of patient journey optimisation that we are building at Imperial to help doctors diagnose disease, select the best treatments, and monitor individual patients progress as part our personalised healthcare plan."

Lord Darzi, Professor of Surgery at Imperial College London, who also co-authored the study, said: "In cancer surgery, you want to take out as little healthy tissue as possible, but you have to ensure that you remove all of the cancer. There is a real need for technology that can help the surgeon determine which tissue to cut out and which to leave in. This study shows that the iKnife has the potential to do this, and the impact on cancer surgery could be enormous."

To read the study in full, please visit:
http://stm.sciencemag.org/

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ONCOLOGY **AND THE LAB**

EuroMedLab 2013

This year's EuroMedLab took place in Milan, Italy. As usual the programme was packed full of interesting presentations on topics ranging from point of care testing to biomarkers to public relations and laboratory management. Oncology was another key topic of the congress and it is these sessions we have decided to include in our oncology supplement. The following summaries give an insight into the congress and the current trends in oncology and the lab.

Epigenetic Biomarkers For Early Detection Of Aerodigestive Tract Cancers In Biological Fluids

T. Liloglou
Department of Molecular and Clinical Cancer Medicine, University of Liverpool, UK

Cancers of the respiratory tract (lung and head and neck) contribute to more than 25% of human cancer-related mortality worldwide. Tumours along the respiratory tract share common aetiologies, risk factors and molecular characteristics. Major clinical challenges in reducing mortality from these cancers include the detection of early lesions, timely discovery of relapse and patient stratification into more efficient therapeutic regimens.

Epigenetic reprogramming is one of the hallmarks of human cancer. DNA methylation is currently the best-studied epigenetic modification pointing to a large number of genes being silenced by hypermethylation. These genes are now looked as potential biomarkers for clinical management of cancer. DNA methylation possesses many characteristics, which make it advantageous in biomarker development. The biological function of DNA methylation, its covalent chemical nature, the stability during fixation and the durability of DNA is clinical specimens are some of such characteristics.

The application of molecular biomarkers in biological fluids and specimens acquired in common clinical practice has been a long term demand. To date, there is significant literature on the applicability of DNA methylation biomarkers in a variety of specimens including bronchial washings, sputum, buccal has been demonstrated, the diversity of methods and study designs makes comparison particularly complicated. In addition, lack of statistical power is a frequent problem. Last but not least, is the lack of a continuum in DNA methylation biomarker studies thus very few groups move into proper clinical validation. This underlines the need of large consortia contributing clinical samples and information as well as the use of a consensus on the use of robust, high precision assays. Clinical validation of DNA methylation biomarkers is very important, especially when running along computed tomography (CT) trials, where it may be able to assist in the management of indeterminate nodules.

Molecular Genetic Approaches To The Diagnosis Of Thyroid Cancer

Y. Nikiforov
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Thyroid cancer is the most common type of endocrine malignancy and its incidence has been steadily increasing in many regions of the world. Papillary and follicular thyroid carcinomas are the two most common types of thyroid cancer. Initiation and progression of thyroid cancer involves multiple genetic and epigenetic alterations, of which mutations leading to the activation of the MAPK and PI3K/AKT signalling pathways are crucial. Non-overlapping genetic alterations, including BRAF and RAS point mutations and RET/PTC and

PAX8/PPARg rearrangements, are found in more than 70% of papillary and follicular thyroid cancers. They represent the most common genetic alterations in thyroid cancer, as well as molecular markers of diagnostic and prognostic significance.

These mutational markers are being introduced into clinical practice, assisting the diagnosis of malignancy in fine-needle aspirates from thyroid nodules, and are particularly helpful for those nodules that have indeterminate cytologic diagnosis. Moreover, some of these markers, such as BRAF, provide additional prognostic information, which may facilitate more individualised operative and post-operative management of patients with thyroid cancer. New emerging laboratory technologies, such as next generation sequencing, will allow to significantly expand the extent and precision of molecular testing for thyroid cancer in the near future.

Biomarker Strategies Currently Being Explored For Prostate Cancer

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More sensitive and specific diagnostic testing that can reliably distinguish aggressive from indolent prostate cancers is urgently required. Measurement of prostate specific antigen (PSA) is integral to the clinical management of patients with prostate cancer, but its limitations for diagnosis and population screening are increasingly well-recognised. Many more men will be diagnosed with prostate cancer than will die of it and many of these men will never have needed to know they had the disease.

Biomarker strategies currently being explored include the Prostate Health Index (PHI) in which results for PSA, free PSA, and a PSA precursor form [-2]pro-PSA are combined in an algorithm to provide an estimate of the risk of prostate cancer and the Prostate CAncer gene 3 (PCA3) urine test. An age-based screening strategy with PSA which combines age and the presence of common genes for prostate cancer so that only the highest risk men are screened has been modelled. Some men would start screening at 45 years, some at 60 years and some would never be screened. Means of improving PSA monitoring in patients with diagnosed prostate cancer are also being developed, with major focus on the interpretation of serial changes in the biomarker and the effective use of this information in routine practice.

Results suggest that personalised approaches to screening could reduce the number of screens required by up to 50% and decrease the number of men diagnosed with prostate cancer by 18%, while also increasing the number of quality adjusted life years and significantly decreasing costs as compared with previously proposed screening strategies. More efficient models for post-treatment monitoring of prostate cancer patients, particularly those on active surveillance, are also likely to be cost-effective as well as more attractive to patients. Objective and rigorous evaluation of such strategies is essential before they can be introduced into clinical practice with particular attention paid to their effect on outcome. Improving the diagnosis of prostate cancer and the monitoring of diagnosed patients post-treatment remains a high priority.

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in the eye and don't [sic] get distracted." But when the incoming nurse was more active in the handover, and asked more questions, it disrupted the flow preferred by the outgoing nurse, lengthened the handover, and made the outgoing nurse feel that something is going wrong with the handover. As one experienced outgoing nurse said, "you are tired… made me feel like why is she asking this stuff, is she trying to trip me up or is she really interested?"

Experienced outgoing nurses in particular seemed to abbreviate the handover when the incoming nurse knew the patient. But the resulting explosion of questions from the incoming nurse suggests that the experienced outgoing nurses were overcompensating for the assumed knowledge of the incoming nurse. As a result, these handovers became contests for control: the outgoing nurse tried to present a brief report but this frustrated the incoming nurse whose knowledge of the patient enabled even more question asking, which in turn frustrated the outgoing nurse who was trying to tell a succinct story and go home but was repeatedly interrupted.

What To Do?

Although the research literature suggests that it will be easier and better when nurses give report to others who already know the patient, due to shared mental models, we find that these are exactly the situations that may create conflict. This seems related to a more general phenomenon that speakers systematically overestimate what listeners understand. Managing this potential conflict may involve recognition of the problem, standardisation of shift reports, and clarity on how to balance the multiple goals achieved in shift report (transmitting information, building trust, educating new nurses, etc.). Given that nurses are not typically aware of the different expectations among incoming and outgoing nurses, more discussion is needed among nurses and managers about where and how to standardise and where to allow or support variation (such as with more complex patients, less experienced nurses, etc.).

We must also consider that standardisation can create additional problems. For example, subsequent to our research, this hospital changed the nursing shift report process to take advantage of electronic nursing records. Outgoing nurses now enter patient information into the computer with a standard data format during their shift (and not necessarily at the very end of the shift when they are under time pressure to leave). When incoming nurses arrive, they go to the computer terminals and read about their assigned patients. Before outgoing nurses can leave the building, they are required to ask the incoming nurses taking their patients if they have any questions. Although the new process provides a clear structure with more documentation and reduces the time that overlapping shifts are away from the patients, a pro forma request for questions may not produce effective verbal communication. The benefits and challenges of this new handover process have yet to be formally evaluated.

> We must be aware of relational communication practices, such as perspective-taking and other trust-building skills, that facilitate transfer of clinical information, development of productive working relationships, and creation of a culture that supports effective learning.

Conclusions

Unlike typical everyday conversations, in which each party speaks and listens in symmetrical roles, there is tremendous asymmetry between giving and receiving report. The outgoing nurse has the information to transmit, and the incoming nurse is taking over responsibility for care of the patient. The incoming nurse is multi-tasking to read the written documentation and also hear the outgoing nurse's report. Each nurse is also distracted, the incoming nurse by the need to get to the patients' bedside and the outgoing nurse by the need to get home.

More can be done to improve handovers and to learn from the many innovations now being tried. Our research suggests that efforts to standardise handovers also should focus beyond the technical information content. Neither incoming nor outgoing nurses' ratings of effectiveness corresponded to expert ratings of technical adequacy of the handovers. We must be aware of relational communication practices, such as perspective-taking and other trust-building skills, that facilitate transfer of clinical information, development of productive working relationships, and creation of a culture that supports effective learning.

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INFECTION CONTROL: A CONSTANT BATTLE

European hospitals are in a constant struggle with healthcare associated infections (HAI). While some infections, although not ideal, are easily treatable, others have serious effects on both patient health and the hospital budget. New programmes and initiatives for reducing infection in our hospitals appear every day, ranging from communication and awareness to new protocols and even new technologies. The European Centre for Disease Prevention and Control have been making strides in recent weeks with a comprehensive European survey on HAIs and new guidance on the prevention of surgical site infections.

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Each Day, One in 18 Patients in European Hospitals has a Healthcare-Associated Infection: ECDC Estimates

ECDC has published the results of its first point prevalence survey (PPS) on healthcare-associated infections and antimicrobial use in European hospitals. Based on findings from this survey, ECDC estimates that on any given day, one in 18 patients in European hospitals has at least one healthcare-associated infection. The report also presents data on the most commonly reported infections, which microorganisms are most commonly reported as causing them, how often antimicrobial drugs are being used to treat these infections and data on infection control structure and processes in the hospitals. More than 1,000 hospitals in 30 European countries participated in this first Europe-wide PPS.

Background

Healthcare-associated infections are those acquired by patients during their stay in a hospital or other healthcare setting. Although some of these infections can be treated easily, others may more seriously affect a patient's health, increasing their stay in the hospital, requiring further surgical intervention or prolonged treatment with antimicrobials and causing considerable distress to these patients.

A prevalence survey is a count of the number of patients with a particular condition/treatment (in this case either a healthcare-associated infection or an antimicrobial agent) at a particular time (in this case a day), as a proportion of the total number of patients who are hospitalised at that particular time. A point prevalence survey only counts the condition/treatment if present at the time (on the day) of the survey, but does not count it if present at other times during the patient stay in the hospital.

For this study, 30 countries used the same point prevalence survey standardised protocol. An estimated 2,800 healthcare workers from 1,200 hospitals across Europe were trained by national coordinating staff to implement the standardised methodology. Data from a total of 273,753 patients in 1,149 hospitals were submitted to ECDC. Of these, 231,459 patients from 947 hospitals were included in the final European sample for analysis.

Increasing Surveillance and Raising Awareness

Through the ECDC PPS, a major step has been made towards increasing the skills for surveillance of healthcare-associated infections and antimicrobial use, and raising awareness of healthcare-associated infections among thousands of healthcare workers across Europe. The survey provides the most comprehensive database on healthcare-associated infections and antimicrobial use in European acute care hospitals to date, and based on these results ECDC has made recommendations that should be further developed and implemented across Europe.

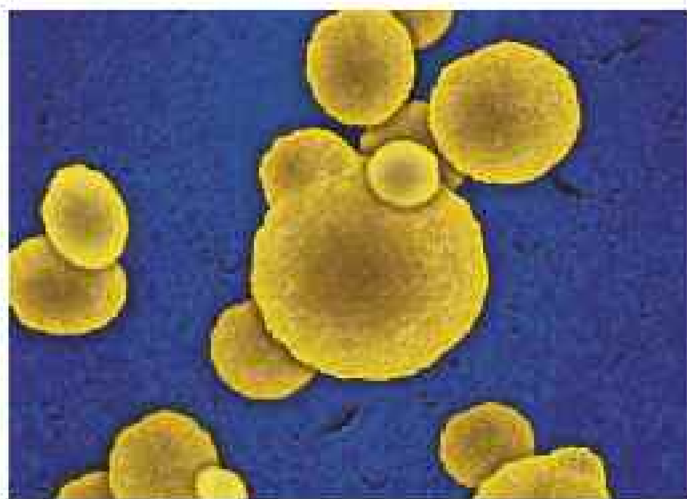
Marc Sprenger, ECDC Director, said: "The survey confirms that healthcare-associated infections pose a major public health problem and a threat to European patients: ECDC estimates that on any given day, about 80,000 patients, i.e. one in 18 patients, in European hospitals have at least one healthcare-associated infection". Overall, this amounts to an estimated total of 3.2 million patients (95% confidence interval: from 1.9 to 5.2 million) each year.

> Many of these infections could be prevented by sustained, multifaceted infection prevention and control programmes, including surveillance of healthcare-associated infections

He added: "Many of these infections could be prevented by sustained, multifaceted infection prevention and control programmes, including surveillance of healthcare-associated infections. Such programmes, as well as prudent use of antibiotics, will help all actors involved to protect the patients of European hospitals".

Paola Testori Coggi, Director General of DG Health and Consumers, European Commission, said: "This survey represents an important milestone in monitoring healthcare-associated infections across

Pre-Surgical Screening of *Staphylococcus aureus* and Methicillin-Resistant *Staphylococcus aureus* Can Reduce Surgical Site Infection rates and Hospital Costs



The BD MAX StaphSR Assay can detect *S. aureus* and MRSA in under two hours, allowing healthcare facilities to begin treatment earlier.

Surgical site infections (SSI) now affect approximately 5% of all surgical patients and are the second most frequent cause of health-care associated infections (HAI). They adversely impact mortality and patient quality of life and result in prolonged hospitalization. In the U.S., approximately 500,000 to 750,000 SSIs occur annually, resulting in an overall mortality rate of 3% and increasing to a rate of 20% or higher for cardiac patients. According to the CDC, on average each SSI increases a patient's hospital stay by more than a week and hospital charges by more than $3,000.

The National Healthcare Safety Network (NHSN) reports that *Staphylococcus aureus* (*S. aureus*) is the predominant organism of SSI (SA-SSI), accounting for about 30% of all infections. Approximately 25-30% of healthy people are colonized with *S. aureus*, while only about 5 to 8% of people carry methicillin-resistant *Staphylococcus aureus* (MRSA), which is more commonly associated with exposure to healthcare institutes. Most SA-SSI derive from a person's own flora and carriers of *S. aureus* have three to eight times the risk of acquiring an HAI with this organism. Studies have now shown that SSIs can be prevented by conducting preoperative screening to identify patients colonized with *S. aureus* or MRSA, followed by targeted decolonization and/or antibiotic prophylaxis. This strategy can also improve patient outcomes by positioning healthcare professionals to introduce interventional strategies for SSIs before the development of painful and potentially life-threatening complications.

A recent Dutch randomized controlled trial evaluated the benefits of screening surgical patients for *S. aureus* through a real-time polymerase chain reaction assay. In results published in the **New England Journal of Medicine**, the authors provided strong evidence indicating that rapid identification of patients carrying *S. aureus* combined with peri-operative decontamination using mupirocin nasal ointment and chlorhexidine gluconate soap can reduce the rate of SA-SSI development by nearly 60%, while causing very few side effects. The study also found that this method reduced the mean hospital stay for patients by almost two days.

A second study in the Netherlands found that a "screen-to-treat" strategy helped to reduce per patient hospital costs by €2,000 and showed an annual savings to the study hospital of $1.5M. Targeted decolonization and/or antibiotic prophylaxis for *S. aureus* and MRSA carriers can also help reduce the use of un necessary antibiotic therapy and preserve maximum efficacy in antimicrobial treatments.

A study published in **Infection Control and Hospital Epidemiology** found that while 60% of infectious disease physicians perform preoperative screening for *S. aureus*, only 13% screen for both *S. aureus* and MRSA. Although screening strategies vary among physicians and hospitals, a screen-to-treat is positioned to deliver optimal results with the use of rapid molecular tests able to detect deadly superbugs in pre-surgical patients. In recent years, researchers at BD introduced the BD GeneOhm™ StaphSR Assay, a test that detects *S. aureus* and MRSA in less than two hours. Traditional culture-based testing can take up to three days to confirm detection. More timely detection can position hospitals and other health facilities to initiate treatment earlier while quarantining colonized patients and introducing other forms of intervention that can both improve outcomes and reduce the risk of new infection among patients and healthcare workers.

Based on the most recent data, broader use of a screen-to-treat strategy targeting both *S. aureus* and MRSA can help reduce the risk of SSIs for surgical patients while reducing average length of hospital stay and overall hospital costs.

Further information:
www.bd.com/europe/ds

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Europe. Their prevalence is worrying and increased efforts are needed at local, national and European level to prevent such infections, for the safety of patients. Such efforts are also needed to fight against the development of antimicrobial resistance. The European Commission is actively monitoring the situation with the support of the European Centre for Disease Prevention and Control, and works in cooperation with the Member States to implement the 2009 Council Recommendation on Patient Safety."

Survey Findings

The prevalence of healthcare-associated infections was the highest among patients admitted to intensive care units (ICUs) in these hospitals, where 19.5% patients had at least one. The most common types of healthcare-associated infection in these ICUs were respiratory tract infections and bloodstream infections. Overall, of a total of 15,000 reported healthcare-associated infections, the most commonly reported types were respiratory tract infections (pneumonia, 19.4%; lower respiratory tract infections, 4.1%), surgical site infections (19.6%) and urinary tract infections (19.0%).

The survey also confirms that a large proportion of patients receive antimicrobial agents while being hospitalised. ECDC estimates that more than 400,000 patients, i.e. one in three patients, receive at least one antimicrobial agent on any given day in European hospitals. The following areas for improvement were identified:

- Limiting the use of broad-spectrum antimicrobials;
- Reducing the unnecessary prolongation of surgical prophylaxis;
- Promoting earlier change from parenteral to oral administration of antimicrobials; and
- Improving the documentation of the reason for the antimicrobial use in the patients' charts.

Individual results were disseminated to the participating hospitals through the national PPS coordinators allowing them to interpret the data, compare themselves with other hospitals on a national level and identify areas for improvement.

ECDC will organise a second Europe-wide point prevalence survey in all Member States in 2016–2017 and will continue supporting the organisation, data collection, validation and analysis of national surveys during the period 2013–2015.

Other Key Findings

About half (54.1%) of the healthcare-associated infections were reported with microbiological results on the day of the survey. Among these, the most commonly isolated microorganisms in HAIs were:

1. Escherichia coli (15.9%)
2. Staphylococcus aureus (12.3%)
3. Enterococcus species (9.6%)
4. Pseudomonas aeruginosa (8.9%)
5. Klebsiella species (8.7%)
6. Coagulase-negative staphylococci (7.5%)
7. Candida species (6.1%)
8. Clostridium difficile (5.4%)
9. Enterobacter species (4.2%)
10. Proteus species (3.8%)
11. Acinetobacter species (3.6%).

Among all Staphylococcus aureus isolates with known results from antimicrobial susceptibility testing, 41.2% were reported as resistant to meticillin (i.e. were MRSA). Among all isolates of Enterococcus species with known results, 10.2% were reported as resistant to vancomycin. Among all isolates of Enterobacteriaceae with known results, 33.4% and 7.6% were reported as resistant to third-generation cephalosporins and to carbapenems, respectively.

On any given day, one in 18 patients in European hospitals has at least one healthcare-associated infection

Preventing Surgical Site Infections

The European Centre for Disease Prevention and Control have released guidance for healthcare professionals on five key perioperative antibiotic prophylaxis modalities for preventing surgical site infections.

Perioperative antibiotic prophylaxis (PAP) is considered one of the most effective measures for the prevention of surgical site infections (SSIs). An ECDC commissioned 'Systematic review and evidence-based guidance on perioperative antibiotic prophylaxis' was performed to identify effective measures to improve compliance with PAP among healthcare professionals. The evidence-based conclusions of this systematic review were further evaluated and ranked by an expert group, thus producing five "key modalities". The ranking was performed taking into account the evidence with respect to effectiveness, implementability and EU-wide applicability.

The five key modalities presented in the guidance are the five most effective measures shown to improve the compliance of healthcare professionals with appropriate administration, timing, dosage and duration of PAP for the prevention of SSIs.

Indicators were also developed as part of the process, for the monitoring of the five key modalities. These include, among others, compliance with the indication, selection, timing, dosage and duration of PAP, the frequency of administration of PAP by an anesthesiologist or another designated professional when PAP is indicated and the presence and frequency of meetings of a multidisciplinary team.

These key modalities and indicators can be adopted or adapted by hospitals across Europe to supply a platform for healthcare professionals to use to increase compliance with the appropriate administration of PAP in European hospitals.

For more information, please visit:
www.ecdc.europa.eu

Hospital Build & Infrastructure Europe: fresh concepts and tried-and-tested strategies

Pioneering health care strategies, prudent facility management and new approaches for the sustainable operation of hospitals are the central themes at this year's international trade fair "Hospital Build & Infrastructure Europe" (HBIE). Around 90 exhibitors will present their solutions for hospital construction, improved infrastructures and clearer processes from 3 to 4 September 2013, at the Congress Center Hamburg. The event organiser Informa Exhibitions, a Business Division of EUROFORUM Deutschland SE, is expecting up to 2,800 visitors.

Aleksandra Kreplin, Conference Manager, emphasised the networking aspect of the event: "The special feature of HBIE is that investors, construction planners, architects, hospital operators and hospital equipment suppliers have the opportunity to meet and discuss completed, ongoing and also planned projects." Along with her colleagues, she constantly focuses on inviting exhibitors and speakers who are able to report on the very latest projects. "We want our participants to learn about new construction and renovation projects as early as the planning phase."

The international focus of the trade fair is also unique in Germany. For example, speakers from over 15 different countries and visitors from 48 countries participated in the event in 2012. Speakers from India, Russia, Denmark, Germany, the Netherlands and Switzerland have already confirmed their attendance at this year's congress which traditionally accompanies the trade fair. Top representatives from the hospital industry will present new strategies under the motto of "Leaders in Health Care". A second series of presentations will address the question of how process optimisation and astute facility management can reduce costs and modernise hospital buildings in the long term.

Modern design and cost-efficient health care provision go hand in hand

In a third series of presentations – "Design, Build, Upgrade" – leading experts will report on their previous success stories in the area of hospital construction. "These presentations will present projects that combine modern design with practical elements," explained Kreplin. "The participants will discover how interdisciplinary approaches can enable effective and lower-cost health care provision through the examples of some truly outstanding hospital buildings." One approach is the use of sustainable building practices: As a member of the German Sustainable Building Council, the Regional Association of Rhineland-Palatinate (LVR), who amongst other things operate a total of ten hospitals, are working on a certification system for the modernisation of existing building stock. Markus Sauer, Head of the Sustainable Building Department at LVR, commented: "Sustainability represents the future viability of the company – the goal is to orientate our actions towards ensuring that we bequeath stable ecological, economic and social conditions to future generations." This has involved LVR viewing construction costs across the whole life cycle of the building and making the binding decision to introduce passive house standards to new buildings. Sauer, a trained architect, will talk about the latest developments and future perspectives for his work at Hospital Build & Infrastructure Europe.

The green hospital concept is booming

The private hospital operator Asklepios also started dealing with the concept of sustainability at an early stage. Three years ago, the Asklepios Group began its "Green Hospital" programme in which the ecological handling of energy in the construction and operation of hospitals has been promoted at selected hospital locations. For example, the Asklepios hospital in Schaufling – one of the pilot locations for the programme – started operating a new solar power plant in October 2012. The total investment for the first phase of construction was 340,000 euros. As a result of the enormous daily energy requirements at the rehabilitation clinic, the Asklepios Group expects the power plant to have already paid for itself after around six years. Dr Wolfgang Sittel, Head of Architecture and Construction at the Asklepios Group and a speaker at HBEI, has noticed that the subject of sustainability has become the focus of a broad-based discussion in Europe and the USA due to worsening environmental problems. "The environmental behaviour of the various players on the market is changing, which is due particularly to the certification of environmentally friendly construction and operation methods in the real estate market," stated Sittel.

Started abroad – successful in Germany

Alongside the congress presentations and a diverse range of trade fair activities, the variety of information platforms offered at HBIE also includes round table discussions and workshops. The German version of Hospital Build & Infrastructure Europe will be held this year for the third time. This unique trade fair concept has also been running successfully for many years in other countries, such as Saudi Arabia, China and India. "The consistent growth in the number of local visitors indicates that this concept has now also become highly popular in Germany," said Kreplin.

www.hospitalbuildeurope.com

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HEALTH TECHNOLOGY APPRAISAL AND RADIOLOGY

By Jane Adam

Radiologists have become experts in evidence-based medicine. Both they and their clinical colleagues who refer patients for diagnostic tests wish to do their best for patients: to provide them with the diagnostic test or tests perceived or proven to have a high sensitivity and specificity for a particular diagnosis, and to proceed with a treatment plan based on as certain a diagnosis as possible.

Information on diagnostic accuracy is available from the published literature, or from synopses and syntheses of the evidence by organisations such as the Cochrane Library. Similarly, for interventional procedures, no longer is it enough for an individual doctor to decide on a patient's behalf what the most appropriate procedure is. This should now be evidence-based, often decided by a group, such as a multidisciplinary team, with treatment results locally audited and outcomes compared with those from elsewhere.

But is this enough? With the spectre of uncontrolled healthcare inflation, can decisions still just be made on the basis of the maximum certainty of a particular diagnosis, however many tests are done to confirm the original impression? Is a test with a much higher cost but marginally higher accuracy justified? As radiologists, our aim is to do the best for patients. But if the health budget is fixed, or even declining, more resources spent on the patient in front of you means fewer resources for others you cannot see, so called 'opportunity costs'. In other words, the opportunity to use those resources elsewhere is lost.

Lean Processes

Looking at the efficiency of delivery of services and the development of 'lean' streamlined processes, as pioneered in the automotive industry is the next step, so that we can provide existing services and clinically driven pathways at lower cost. However, this enshrines and reinforces the existing diagnostic pathway and methods of treatment. It does not question the validity of the pathway, it just makes the current approach and processes more efficient and thereby more cost-effective.

To make a real change, the next step is to openly question and challenge the effectiveness and value for money of those clinical pathways and see if they themselves should be changed. This is where health technology assessment comes in.

Health Technology Assessment

Health technology assessment (HTA) is designed to answer four questions:

1. Does the technology (drug, device, medical investigation, medical and surgical procedure) work, and how well?
2. Who will benefit?
3. What is the cost?
4. How does it compare with alternatives?

With the answers to these fundamental questions, it should be possible to use medical resources to get maximum population health benefit from the money spent.

The premise is that expensive tests or treatments must be able to justify their additional cost compared with cheaper alternatives by showing proven better outcomes for patients. If the extra health gain is small, but the additional cost high, the money would be better spent, and potentially buy more 'health' for the population if spent elsewhere.

These calculations are not easy however. Health technology assessment is a rapidly evolving field with more and more sophisticated mathematical modelling being used. It also relies on accurate published evidence of the effectiveness of the investigation or treatment in order to calculate its cost-effectiveness.

HTA in Radiology

In some cases, HTA can be directly used in radiology. One, albeit highly disputed, area is in screening for disease. Breast screening for cancer is routinely carried out in many countries.The cost of the programme and the benefit in terms of additional lives saved can be calculated and compared with no screening.

Of course there will be variation of opinion and the literature on the number of lives saved, and arguments about the additional financial and personal cost of over-investigating or over-treating those who might never die of the disease. Nevertheless, an informed calculation of the cost/benefit can be made to justify starting or continuing a screening programme.

Interventional radiological procedures can be evaluated in the same way. It is surprising that not more has been done in this field, as it is highly likely that many interventional procedures are cost-effective and should probably largely replace conventional surgical treatment. One example which has been looked at is fibroid embolisation compared with hysterectomy.

Both the examples given above look at direct health benefit.But it is not quite as simple as that. Lives saved can be counted, but if only those over 90 were saved, then the number of years of life saved would be less than if the average age of diagnosis was 50.

In the hysterectomy vs. embolisation example, the cost-effectiveness has to be evaluated in the light of the precise health benefit. If that is pain and bleeding avoided, those symptoms should be quantified and assigned a value pre- and post-treatment. Were hysterectomy to provide better symptom control, then it

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25. EVKD-Kongress Berlin

10. - 12. September 2014

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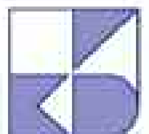

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would have to be decided whether it was better enough to be worth the additional cost compared with embolisation. However, if the health benefits were the same or greater with embolisation, then embolisation would be the more cost-effective option. Thus cost-effectiveness depends on what you are trying to achieve in terms of health gain and the monetary cost of that gain.

Quality Related Life Years

The quality related life year or QALY is an attempt to quantify health gain, in order to fairly compare two different health approaches. All diseases or health states are assigned a utility which is a measure of quality of life or health state which can be between 0 (death) and 1 (perfect health). The therapeutic effect of an intervention on the disease will raise the utility as the patient gets better. The rise in utility multiplied by the number of years it lasts gives the QALY gain.

A treatment which gives a small improvement which lasts many years may give an equal gain in QALY terms to a treatment giving a large benefit which disappears quickly. The whole point of the QALY is to provide a uniform unit of health gain which can be costed. This is increasingly used to decide whether new drugs should be purchased in healthcare systems and made available to patients. The National Institute for Health and Clinical Excellence (NICE) in the UK, for example, rarely approves a drug which costs more than £30,000 per additional QALY gained compared with existing treatment.

HTA and Diagnostic Radiology

Diagnostic radiology is at least one step removed from any patient outcome that can be directly measured, and consequently it is a great challenge to calculate any QALY or health gain directly attributable to an individual diagnostic test. Surrogate measures of benefit to patients can however be measured more easily.For example, it is possible to calculate the accuracy and cost of using a technique to make a particular diagnosis. In order to do this, very robust research data is needed, and unlike the gold standard of randomised controlled trials required for the development and licensing of a new drug, radiology research relies on less stringent evidence, usually from observational data or trials, which will be of variable quality.

Critical appraisal of all the evidence available, which takes into account the quality of the data, an essential part of the HTA process,can result in a ranking of the diagnostic accuracy of a test, compared with its cost. This can be used to decide whether the more expensive test is 'worth it', namely how much extra needs to be spent per diagnosis made and what are the disadvantages of using the cheaper one? This is different from a radiologist's perspective which will be driven largely by the desire to do the best for the patient, whilst also minimising the doctor's medico-legal risk.

This comes into even sharper focus when it comes to using a second test to check on or confirm a diagnosis suggested by the first. An example would be a first test with 75% accuracy, and a second much more expensive one with 80% accuracy. The first test delivers 75% of the information, but the second delivers only 5% additional information at full cost, and therefore may not be value for money. The question here is how many patients (if any), and which ones, should have the second test?

Equally discomforting for radiologists, is the question of whether we actually need the expensive machines with all the various high cost options. Would a cheaper machine be perfectly adequate for the patient population and better value for money?

The Future

The evaluation of new drugs and treatments is the main use of HTA at present, and it is here that the HTA process is best developed and validated. As the cost of healthcare increases, however, more focus is likely to be placed on the 'value' of diagnostic tests. Sooner or later radiology will be required to demonstrate its direct benefit to patients and to justify the costs. This is in part addressed in diagnostic guidelines and referral criteria, but these are currently designed to bring together best evidence of diagnostic accuracy and to reduce unnecessary irradiation, rather than being driven by calculated cost-effectiveness data. The move towards HTA could represent an opportunity for radiology to demonstrate its worth, but it may be a threat to the cautious approach to diagnosis, which has fuelled the rise in diagnostic tests, and is characteristic of modern medical practice.

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THE BULGARIAN HEALTHCARE SYSTEM

Bulgaria's main challenge is to catch up with the more developed Member States in terms of healthcare services. The reform process that began in the 1990s and continues today has yet to achieve its objectives. The major goal, and indeed challenge, is to improve population health. Success depends on improving competitiveness and structural reforms, particularly in the health system, to stimulate growth. This requires strong political support.

The South Eastern European country of Bulgaria spans over 111, 000 km^2 and has a population of 7.6 million. Bulgaria is well behind EU averages in terms of mortality and morbidity indicators. In 2009, the main three causes of death in Bulgaria were diseases of the circulatory system, malignant neoplasms and diseases of the respiratory system.

The Healthcare System

The Ministry of Health is responsible for national health policy and the overall organisation and functioning of the health system. The Bulgarian health system was reformed under the Health Insurance Act of 1998 into a health insurance system with compulsory and voluntary health insurance. The key players in the insurance system are the insured individuals, the healthcare providers and the third-party payers: the National Health Insurance Fund, the single payer in the social health insurance (SHI) system, and voluntary health insurance companies (VHICs).

The health insurance system covers diagnostic, treatment and rehabilitation services as well as medications for insured individuals and the Ministry of Health is responsible for public health services, emergency care, transplantations, transfusion haematology, tuberculosis treatment and inpatient mental healthcare.

Healthcare providers are autonomous self-governing organisations. The private sector includes all primary medical, dental and pharmaceutical care, most of the specialised outpatient care and some hospitals whereas the university hospitals and national centres, national specialised hospitals are run by the state. The state is also in charge of centres for emergency medical care, psychiatric hospitals, centres for transfusion haematology and dialysis, as well as 51% of the capital of regional hospitals.

Table 1: Key Figures for Bulgaria

Indicator	Year	Value
% of population aged 0-14 years	2011	13
% of population aged 65+ years	2011	19
Crude death rate per 1000 population	2011	15
Estimated infant mortality per 1000 live births (World Health Report)	2010	11
Estimated life expectancy, (World Health Report)	2009	74
Hospital beds per 100000	2010	649
Infant deaths per 1000 live births	2011	8
Life expectancy at birth, in years	2011	74
Life expectancy at birth, in years, female	2011	78
Life expectancy at birth, in years, male	2011	71
Live births per 1000 population	2011	10
Mid-year population	2011	7348448
Physicians per 100000	2010	371
Total health expenditure as % of gross domestic product (GDP), WHO estimates	2010	7

Source: European Health for All Database (HFA-DB)

Financing

Bulgaria has a mixed public–private healthcare financing system. Healthcare is financed from compulsory health insurance contributions, taxes, out-of-pocket (OOP) payments, voluntary health insurance premiums, corporate payments, donations, and external funding. Total health expenditure as a share of gross domestic product (GDP) increased from 5.3% in 1995 to 7.3% in 2008. The structure of total health expenditure has been changing over time, with private expenditure increasing at the expense of public financing. In 2008, public expenditure on health as a share of total health expenditure was 57.8% while private expenditure accounted for 42.2%.

The main purchaser of health services is the National Health Insurance Fund (NHIF). Social health insurance contributions are calculated at 8% of monthly income, paid by the insured individuals, their employers, or the state. Relations between the NHIF and healthcare providers are based on the contract model. The Fund and the professional associations of physicians and dentists sign the National Framework Contract (NFC), which regulates the format and operational procedures of the compulsory health insurance system. Based on the NFC, providers sign individual contracts with the regional branches of the Fund. Providers are mainly paid prospectively for the services they will provide to the population on a fee-for service and per capita basis.

Voluntary health insurance is provided by for-profit, joint-stock companies in-

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tended for voluntary health insurance only. Beyond the package covered by the NHIF all citizens are free to purchase different insurance packages. Voluntary health insurance companies can also cover the cost of services included in the basic benefit package guaranteed by the NHIF budget. Less than 3% of the population purchased some form of voluntary health insurance in 2010.

Organisation

Outpatient services are organised according to territories. Investment for state and municipal health establishments is financed from the state or municipal share in the establishment's capital. For local hospitals, municipality funding for new investment and maintenance costs has shown a downward trend. There are various programmes offered by the Ministry of Health for investment in medical infrastructure that healthcare establishments can apply for. On the primary care level, there is an uneven distribution of GPs regionally and a lack of incentives for primary and specialised medical practices have led to increased use of specialised care and increased hospitalisation rates. The number of acute beds per population in Bulgaria is above the EU27 average while the average length of stay is slightly below the EU27 and EU15 averages. Both indicators show a decreasing trend.

Health services are delivered by a network of various public and private healthcare providers. Public health services are provided by the state and organised and supervised by the Ministry of Health. The Health Care Establishment Act stipulates the distinction between outpatient and inpatient care.

The GP is the key figure in primary care and acts as a gatekeeper for specialised ambulatory and hospital care. The number of general practitioners in Bulgaria has been declining slowly and their geographical distribution does not reflect the needs of the population. Ambulatory care is also provided by specialised outpatient facilities, including individual and group practices, medical and medico-dental centres, diagnosticconsultative centres and stand-alone medico-diagnostic or medico-technical laboratories. They are autonomous healthcare establishments, most of them with a contractual relationship with the National Health Insurance Fund. All primary, and the majority of specialised, outpatient facilities are privately owned. Inpatient care is delivered mainly through a network of public and private hospitals, divided into multi-profile and specialised hospitals.

High rates of hospitalisation indicate the underuse of ambulatory care and a lack of integration at the different levels of care. Healthcare reforms after 1989 focused predominantly on ambulatory care and the restructuring of the hospital sector is still pending on the government agenda. Thus, both an oversupply of acute care beds and an undersupply of long-term care and rehabilitation services remain. Long-term care is generally underdeveloped regarding both community-based services and inpatient care provided by specialised hospitals. Regional centres for emergency care and hospitals' emergency wards are the key units in the organisation of emergency care. Urgent care is also provided by GPs. The main challenges faced in this field are the shortage of medical professionals and the lack of medical equipment.

Healthcare Workforce

In 2009 health workers accounted for 4.9% of the total workforce. While the number of physicians and dentists is high in Bulgaria, the number of nurses is well below the EU15, EU12 and EU27 averages. Healthcare professional mobility is a growing concern in Bulgaria, mainly due to the development of technology, accessible transport and communications. The migration of medical specialists has become a serious challenge: during the first nine months of 2010, more than 340 physicians and 500 nurses left the country.

In terms of education and training, medical education is provided by four medical universities and two medical faculties in other universities. The Council of Ministers determines the requirements for obtaining both higher education degrees and specialisations. Professional specialties in health provision are determined by the Ministry of Health and require a state examination by the State Examination Commission in Sofia. Continuous medical education is organised and credited by the Professional Associations in accordance with the Health Act.

Major Reforms

There have been three stages of reform of the healthcare system in Bulgaria since 1989. The first stage of reform (1989–1996) saw the abolishment of the state monopoly in the health system and the building a decentralised healthcare administration. During this period the idea of a health insurance system also emerged. The second stage (1997–2001) saw the introduction of the new health insurance system with new laws on health insurance, healthcare establishments and the professional organisations of physicians and dentists. In the third stage (2002–present), the legislative foundation of the healthcare reform was completed. This third stage focuses on decreasing the number of citizens without SHI coverage and securing the financial stability of the system (mainly by raising the health insurance contribution from 6% to 8%).

At the present moment, these reforms have yet to achieve their main objectives: improved population health and a democratic healthcare system that meets the health needs of the population.

A Challenging Future

Health indicators show Bulgaria is still behind EU averages. There is a current feeling of dissatisfaction with the healthcare system among both healthcare professionals and citizens. Although health expenditure has increased nearly three times since the introduction of the health insurance model, the system continues to experience a lack of financial resources and large inequities on all levels. Financial protection is inadequate and the distribution of the financial burden uneven. Equity within the healthcare system is a challenge not only because of differences in health needs, but also because of socioeconomic disparities and territorial imbalances. Services provided to the population vary substantially in terms of quality and access in the different regions.

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THE STARA PLANINA REGIONAL ASSOCIATION OF HOSPITALS

When and why was the association founded?

The association operates primarily in the Stara Planina region of Bulgaria as an organisation of hospitals and institutions professionally involved in healthcare as well as active physical entities supporting and contributing to the ideas of the association.

The Stara Planina Regional Association of Hospitals was established in 1997 as a Bulgarian not-for-profit organisation. The association was created as a result of a Swiss programme for supporting healthcare providers in region of Stara Planina, which the Swiss government has been implementing since 1992.

The main activities are:

- Participation in national health policy formulation and implementation through the organisation and initiation of public discussions, roundtables, forums, etc.
- Supporting hospitals and their evolution by organising national and international conferences
- Increasing the medical staff training by organising specialised training sessions, workshops and working visits of medical doctors and nurses
- PR and media campaigns, advocacy

Leonardo Da Vinci

Members of the Board of the association actively participate in the formulation of the national health policy as members of the working committees.

> The programmes of the association are based on the principle of communication and cooperation at local and international level as a means of speeding up progress towards a better health for all the people.

How long has the Bulgarian association been a member of the EAHM?

In September 2004 we became an active member of the European Association of Hospital Managers.

What is the role of your association and what are its main activities?

The association supports hospitals in the region to improve the access to quality health services by optimal usage and development of resources, by attracting new partners and by being flexible to respond to the changing healthcare needs. Our efforts are focused on innovative and flexible approaches that pay special attention to the responsibility of individuals and groups of people, to new ideas and new actions as well as to the utilisation of resources available. The programmes of the association are based on the principle of communication and cooperation at local and international level as a means of speeding up progress towards a better health for all the people.

Are there any particular important achievements or developments within the last few years that you would like to share with your European colleagues?

For the last few years the association has participated in a number of national, European and international projects such as:

- A complex educational programme for early diagnosis of breast and cervical cancer initiating public participation;
- Women Better Health by involving the public in the seriousness of the illness and increasing the personal responsibility for one's own health by improving the health awareness of all age groups;
- In Form – Campaign against obesity in children and adolescent financed by EU framework program for public health; and
- Medical European Mobility financed by Lifelong Learning Programme

Do you offer training programmes for hospital managers?

The association is an information, consultation and training centre supporting the efforts of hospitals for a more efficient activity in the area of management, organisation, financing, administration and quality of healthcare by improving the coordination and cooperation among the various providers of medical care, institutions, NGOs, media and international partners.

The Association provides training for hospital managers on specific subjects that are closely related to the association's objectives, which are to:

- Support management capacity development for health providers in the framework of healthcare reform;
- Support the improvement of the quality of care through exchange of theoretical knowledge and practical experience;
- Contribute to reforming the healthcare system and harmonising it with the European standards; and
- Improve the coordination and cooperation among the separate providers of medical care, health institutions, and representatives of healthcare and pharmaceutical industries.

Finally, what does the future hold for the association?

The association will continue to provide professional support to its members and to the health professionals in the region as well as to mobilise financial and human resources for supporting projects and programmes relevant to the health system on both a national and international level.

Interviewee:
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Heinz Kölking

RELEVER ENSEMBLE LES DÉFIS

L'année 2011 restera certainement longtemps dans nos mémoires ne serait-ce qu'à cause des turbulences qui ont affecté les marchés financiers et les budgets nationaux. Soumis aux mesures généralisées de réduction des coûts dans presque tous les pays européens, les hôpitaux se sont vus contraints de réduire leurs dépenses ou de trouver de nouvelles sources de revenus. Les anciennes politiques ont dû laisser la place à de nouvelles priorités. Néanmoins, la qualité ne doit pourtant pas pâtir de ces circonstances et si elle ne peut augmenter, elle doit au moins rester à son plus haut niveau et survivre aux rivalités qui peuvent diviser les professionnels de santé.

Les gestionnaires hospitaliers européens sont confrontés à des challenges bien particuliers qui vont très certainement les poursuivre encore pendant quelques années. De telles circonstances ne sont jamais souhaitables, mais nous pensons que cette situation est aussi une chance pour l'AEDH car en ces temps troublés plus particulièrement encore, tout bon conseil vaut son pesant d'or. Le thème prévu pour le 24ème Congrès de l'AEDH qui se tiendra les 28 et 29 novembre 2013 à Luxembourg met justement l'accent sur ces challenges. Notre sous-comité scientifique est très clair : tout changement profond à l'hôpital étant de la responsabilité de la direction, les directeurs d'hôpitaux innovants sont plus que jamais nécessaires. Les déficits budgétaires sont bien évidemment à éviter mais cependant, parallèlement à ces mesures prises pour assurer une réduction des coûts, il est fondamental de promouvoir et de maintenir la cohésion et la confiance dans la coopération avec tous les employés de l'hôpital.

Dans nos pays, les soins de santé sont un élément essentiel permettant d'assurer la cohésion sociale, et les hôpitaux y jouent un rôle de premier plan. D'une part, dans les États membres, ils se portent garants des soins médicaux et infirmiers des personnes. D'autre part, ils représentent un facteur économique primordial dans nos économies nationales. Beaucoup de personnes sont à la fois directement et indirectement employées dans l'économie de la santé. Nous sommes donc tous appelés à préserver les conditions nécessaires pour que cette responsabilité soit prise dans nos pays en Europe, même si c'est une difficulté supplémentaire en période de crise financière. De plus, les divers changements fondamentaux et dont nous sommes témoins concernant la technologie, la communication, la démographie, ou les valeurs ont un retentissement profond sur les structures et les processus de l'offre de soins. Cette responsabilité multidimensionnelle du secteur de la santé pour les personnes et la société sera le sujet du 25ème congrès de l'AEDH qui se tiendra à Berlin les 11 et 12 novembre 2014.

Je tiens également à saisir cette occasion pour remercier sincèrement nos nombreux membres et les partenaires qui se dévouent au sein de l'AEDH. Avec le soutien et la contribution d'un grand nombre de nos collègues dans les hôpitaux européens, nous pouvons surmonter ces difficultés et avoir le regard tourné vers l'avenir. C'est une gageure que nous nous devons de relever également pour les patients.

Ce numéro de *(E)Hospital* vous présente de nombreux sujets intéressants parmi lesquels certains ont été écrits par nos collègues résidant en Autriche ou en Irlande du Nord. Cette fois-ci, le country focus s'intéresse au secteur de la santé en Bulgarie.

Heinz Kölking,
Président de l'AEDH

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 RÉUNION DU CONSEIL D'ADMINISTRATION PRODUCTIVE À AMSTERDAM

Le Conseil d'administration s'est réuni pour la 96ème fois le 24 mai dernier. La réunion s'est tenue à Amsterdam où nous avons été aimablement accueillis par le nouveau partenaire de l'AEDH issu de l'industrie, Arcadis.

L'ordre du jour était chargé comme d'habitude et le Conseil d'administration a examiné de nombreuses questions. Il a ainsi réfléchi à la façon de soutenir nos collègues grecs suite à l'annulation du congrès d'Athènes l'année dernière. Dans un acte de solidarité, de nombreuses associations nationales se sont déclarées prêtes à aider l'association grecque à se remettre de cette situation et à participer une fois de plus pleinement aux activités de l'AEDH.

Au cours de la réunion, un nouveau modèle de travail a été proposé pour l'association : l'IMPO. Fruit de la réflexion de notre secrétaire général Willy Heuschen et de son assistant Jos Vanlanduyt, IMPO vient de « Inputs, Management, Processes and Outputs ». Présentés pour la première fois à Amsterdam par Willy Heuschen, ce nouveau modèle de travail et son concept ont fait l'objet d'un accueil très positif à la fois par le Bureau et par le Conseil d'administration. Ce modèle sera encore l'objet de débats avant d'être présenté à tous les membres au congrès de Luxembourg en cette fin d'année.

Au cours de cette réunion, nous avons eu la joie de désigner la ville qui accueillera le congrès de l'AEDH en 2016. Après de longues délibérations pour départager les deux grands candidats, l'Italie et l'Irlande du Nord, le Conseil a décidé de nommer l'ANMDO organisateur du congrès 2016. Les détails doivent encore être précisés, mais l'ANMDO et l'AEDH ont le plaisir d'inviter les membres de l'AEDH à Bologne en 2016.

Cette réunion a permis de débattre de nombreux autres sujets et en particulier d'effectuer une mise à jour des travaux de chacun des sous-comités et de déterminer le budget prévisionnel pour 2014.

L'AEDH SOUHAITE LA BIENVENUE À SON NOUVEAU MEMBRE, L'IRLANDE DU NORD

L'AEDH a le plaisir d'annoncer que la section « Institute for Health Management Northern Ireland » se joint à notre association. Le président Heinz Kolking et le secrétaire général Willy Heuschen ont effectué un voyage à Belfast en mai dernier pour rencontrer quelques-uns des membres de l'association et, si la ville est une destination qui s'y prête, y envisager l'éventualité d'un congrès de l'AEDH.

Louise McMahon, présidente de l' « Institute for Health Management Northern Ireland » (IHM NI), prendra place au sein du Conseil d'administration et du sous-commité aux affaires européennes. S'exprimant lors de la dernière réunion du Conseil d'administration à Amsterdam, Mme McMahon a souligné que l'IHM NI s'engageait envers l'Europe et les affaires européennes et qu'elle espérait que cette relation se révèlerait féconde. Willy Heuschen, secrétaire général, a fait part de sa joie d'avoir de nouveau des liens avec le Royaume-Uni, fût-ce par une association régionale, et de son vœu de rétablir, grâce à cet intermédiaire, le contact avec l'association britannique.

L' « Institute for Health Management Northern Ireland » deviendra membre officiel après l'approbation de l'Assemblée Générale à Luxembourg en novembre prochain.

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La formation en gestion de la santé en Irlande du Nord

Notre magazine *(E)Hospital* a rencontré deux gestionnaires travaillant en Irlande du Nord ayant accompli le programme de formation en gestion HSC. Louise McMahon, présidente de l' « Institute of Health Management Northern Ireland », l'Institut de gestion de la santé d'Irlande du Nord, y a effectué sa formation et a progressé pour devenir directrice de la performance et de l'amélioration du service au « Health and Social Care Board », dédié à la santé et à la protection sociale, tandis que Karen Hamill termine sa formation après avoir rejoint le « health service » d'Irlande du nord, une formation juridique en poche.

Elles insistent toute deux sur les avantages de ce solide programme de formation qui repose sur la participation à plusieurs stages et donne aux stagiaires l'opportunité de suivre les différents professionnels qui œuvrent dans un hôpital, depuis les brancardiers jusqu'aux médecins et même auprès des instances dirigeantes. Les stagiaires y acquièrent un aperçu unique sur le fonctionnement d'un hôpital au quotidien, une précieuse expérience qui, pensent Louise McMahon et Karen Hamill, les aidera tout au long de leur carrière. Chaque stagiaire se voit attribuer un mentor, habituellement un cadre supérieur au « health service » qui est aussi un expert pouvant le conseiller et le faire bénéficier de ses années d'expérience. Une personne de référence (ou parrain), récemment diplômé par le programme de formation, est également nommée. Son rôle est de soutenir le stagiaire s'il a des questions plus particulières concernant sa formation.

La formation des directeurs d'hôpitaux en Autriche

Par Klaus Watzinger

Depuis plus de trente ans, près de 400 gestionnaires hautement qualifiés des organisations de soins de santé, principalement des directeurs d'hôpitaux, ont été formés avec succès par l'Institut autrichien de gestion des soins de santé. En parallèle, des milliers d'employés et autres responsables d'établissements de soins de santé suivent des formations dans des cours généraux ou plus spécifiques.

Tous ceux qui bénéficient de cet enseignement considèrent les programmes de formation comme une qualification importante et déterminante pour leur emploi. Certains obtiendront plus tard un travail au sein de l'Institut autrichien de gestion des soins de santé en tant que professeur ou conférencier, et pourront faire bénéficier les nouveaux venus de leurs connaissances en sus de leur grande expérience professionnelle. On assiste donc bel et bien au développement d'un circuit de transfert des connaissances profitant – ce qui parait inévitable dans les conditions sans cesse changeantes imposées à nos directions dans les hôpitaux – d'une mise à jour constante des connaissances nécessaires. Autrement dit, une parfaite gestion des connaissances.

La valeur ajoutée de la gestion du patrimoine immobilier dans le secteur hospitalier

Par Johan van der Zwart et Theo van der Voordt

Actuellement, en plus de la rentabilité, les contributions possibles du patrimoine immobilier à la performance organisationnelle sont de plus en plus intégrées en temps réel à la gestion stratégique du patrimoine immobilier de l'établissement. Cet article explore le concept de la valeur ajoutée par l'immobilier et son application dans la conception et la gestion des bâtiments d'un hôpital. La valeur ajoutée de l'immobilier est un concept multidimensionnel qui implique l'intervention de nombreux participants.

Si on interroge les directeurs, les gestionnaires du patrimoine immobilier des établissements et les directeurs de projets des hôpitaux, stimuler l'innovation, améliorer la satisfaction des patients et du personnel, et accompagner les changements culturels font partie de leurs priorités. Intervenir dans l'immobilier permet de soutenir la productivité au travail, la flexibilité et de réduire les coûts. On s'aperçoit que la gestion des risques et les occasions d'utiliser la valeur financière de l'immobilier pour financer les processus organisationnels ne sont pas assez reconnues comme des valeurs ajoutées importantes du patrimoine immobilier dans un hôpital. Les priorités s'avèrent différentes quand il s'agit de s'occuper de la construction d'un bâtiment ou si on assure la gestion de bâtiments déjà existants.

Éviter les incidents de communication au cours des transmissions effectuées par les infirmier(e)s lors des changements d'équipe

Par John S. Carroll, Michele Williams, Theresa M. Gallivan

On a remarqué que des incidents de communication peuvent survenir et devenir une source de problèmes dans les milieux de travail complexes comme les soins de santé en milieu hospitalier. Les auteurs ont mené une étude multi-méthode sur les transmissions effectuées lors des changement d'équipe entre les infirmier(e)s, en s'appuyant sur des entretiens, des enquêtes, des enregistrements audio et l'observation directe des transmissions, des questionnaires post-transmissions, et le codage d'archives de dossiers cliniques.

Les auteurs ont constaté une très grande variabilité entre les services, les infirmier(e)s et, étonnamment, les rôles. Les infirmier(e)s prenant leur travail et ceux/celles qui le quittaient avaient des attentes différentes en ce qui concerne la qualité d'une bonne transmission : les infirmier(e)s prenant leur service désiraient que les transmissions prennent la forme d'une conversation sur la base de leurs questions et d'un contact visuel, tandis que les infirmier(e)s terminant leur service voulaient donner des précisions sans être interrompues. Les infirmier(e)s plus expérimentées avaient tendance à abréger leurs transmissions quand celles qui prenaient leur service connaissaient déjà le patient, si bien que

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ces dernières réagissaient en posant un grand nombre de questions, ce qui établissait une ambiance de compétition et de contrôle.

Les résultats de notre enquête suggèrent que les efforts visant à la standardisation et à l'amélioration des transmissions effectuées par les infirmiers ou d'autres professionnels de la santé tiennent compte de ces deux aspects de la communication : celui de la transmission d'informations et celui de la construction d'une relation.

Des soins pharmaceutiques pour les patientes soufrant d'un cancer du sein ou de l'ovaire

Par Ulrich Jaehde et al.

Les soins individualisés peuvent servir à réduire l'incidence des effets indésirables des médicaments sur un patient au cours d'une thérapie systémique du cancer. Cette étude a été menée pour étudier la faisabilité et l'impact potentiel des soins pharmaceutiques complémentaires pour des patientes atteintes d'un cancer du sein ou de l'ovaire. L'étude a été conçue comme une étude de cohorte prospective multicentrique avec groupe de contrôle. Quatre-vingt-huit patientes atteintes d'un cancer du sein ou de l'ovaire et traitées en ambulatoire dans des cliniques d'oncologie ou par des oncologues en équipes de soins primaires ont participé : d'abord dans le groupe témoin recevant les soins courants, et après la mise en œuvre des soins pharmaceutiques dans le groupe traité. Ces soins comprenaient des recommandations données à la patiente pour qu'elle puisse assurer une meilleure gestion des effets indésirables liés au traitement, ainsi que la prise de médicaments de soutien.

Quarante-huit patientes ont été inclues dans le groupe témoin et cinquante dans le groupe ciblé par l'intervention. Parmi les patientes, 35,4 % dans le groupe témoin et 76,0 % dans le groupe cible ($p<0,001$) ont répondu positivement et de façon complète à la prophylaxie antiémétique. La gravité des nausées aigues ou retardées n'a pas été réduite. L'échelle d'évaluation globale de la santé et deux échelles d'évaluation des symptômes (nausées et vomissements, perte d'appétit) ont été positivement affectées par ces soins. La satisfaction des patientes vis à vis de l'information qui leur avait été donnée était significativement plus élevée dans le groupe traité. Les patientes atteintes de cancer du sein ou de l'ovaire semblent tirer bénéfice de ces soins pharmaceutiques, c'est ce que suggère l'amélioration des résultats rapportés par les patientes après la mise en œuvre de cette prophylaxie. Ils touchent autant les épisodes de vomissements et la qualité de vie que la satisfaction générale de la patiente.

Focus sur la Bulgarie

L'Association régionale des Hôpitaux de Stara Planina soutient les hôpitaux de sa région. Elle leur permet d'améliorer l'accès à des services de santé de qualité par l'utilisation optimale et le développement de ressources, d'attirer de nouveaux partenaires et de rester flexible pour répondre aux besoins changeants du secteur de la santé.

Ses efforts sont centrés sur des approches novatrices et souples qui accordent une attention particulière à la responsabilité des individus et des groupes de personnes, à de nouvelles idées et de nouvelles actions, ainsi qu'à l'utilisation des ressources disponibles. Les programmes de l'association sont basés sur le principe de la communication et de la coopération au niveau local et international qui deviennent des moyens d'accélérer les progrès réalisés pour que chacun puisse bénéficier d'une meilleure santé.

Heinz Kölking

GEMEINSAM DIE HERAUSFORDERUNGEN ANGEHEN

Sicherlich bleibt uns das Jahr 2011 mit seinen turbulenten Entwicklungen auf den Finanzmärkten und in den Staatshaushalten lang in Erinnerung. Unter den enormen Sparzwängen in fast allen europäischen Ländern mussten die Krankenhäuser Kosten reduzieren oder neue Einkommensquellen anzapfen. So manche Unternehmensstrategie geriet ins Wanken und Prioritäten mussten neu aufgestellt werden. Bei alledem gilt es die Qualität, wenn nicht zu steigern dann zumindest zu wahren und den Wettbewerb unter den Gesundheitsanbietern zu überstehen. Diese besonderen Herausforderungen stellen sich europaweit jedem Krankenhaus Manager, sicherlich werden sie uns wohl noch einige Jahre begleiten. Eine solche Entwicklung, die sich wohl niemand wünscht, ist für den EVKD auch eine Chance. Gerade in krisengeschüttelten Zeiten ist jeder gute Rat teuer. Das Thema des geplanten 24. EVKD Kongresses in Luxemburg (28./29. November 2013) richtete verstärkt das Augenmerk auf diese Aktualität. Mit unserem wissenschaftlichen Beirat sind wir der Meinung, dass der innovative Krankenhausmanager, so das Kongress Thema, in diesem tiefgreifenden Wandel in seiner Führungsaufgabe besonders gefordert ist. Selbstverständlich sind Haushaltsdefizite zu vermeiden. Es gilt aber auch und vor allem unter diesen unvermeidbaren Sparzwängen den Zusammenhalt und das Vertrauen in der Zusammenarbeit mit allen Mitarbeitern des Krankenhauses zu fördern und aufrecht zu erhalten.

Die Gesundheitsversorgung in unseren Ländern ist ein wesentlicher Faktor zur Sicherung des gesellschaftlichen Zusammenhalts. Dabei haben die Krankenhäuser eine herausragende Bedeutung. Zum einen sichern die Krankenhäuser die medizinische und pflegerische Versorgung der Menschen in den Mitgliedsstaaten. Zum anderen stellen die Hospitäler einen wesentlichen Wirtschaftsfaktor in unserer Volkswirtschaft dar. Viele Menschen sind unmittelbar und mittelbar in der Gesundheitswirtschaft beschäftigt. Wir alle sind also aufgefordert, die Voraussetzungen dafür zu sichern, dass diese Verantwortung in unseren Ländern in Europa getragen wird. Dies ist in den Zeiten der Finanzkrise eine akute Herausforderung. Darüber hinaus ist jedoch der grundlegende und vielfältige Wandel in unserer Gesellschaft (Technologie; Kommunikation; Demographie; Werte) in den Strukturen und Prozessen der Gesundheitsversorgung zu verarbeiten. Diese vieldimensionale Verantwortung der Gesundheitswirtschaft für die Menschen und für die Gesellschaft wird das Thema des 25. Kongresses der EVKD in Berlin sein, der vom 11. Bis 12. September 2014 stattfindet.

Es ist mir ein Anliegen, den vielen engagierten Kolleginnen und Kollegen wie auch unseren Partnern im EVKD aufrichtig zu danken. Mit ihrer Unterstützung und den Beitrag vieler unserer Kollegen in den europäischen Krankenhäusern lassen sich die neuen Horizonte, trotz mancher widriger Umstände erklimmen, dies sind wir wohl den Patienten schuldig.

Diese Ausgabe von HOSPITAL hat wieder viele weitere interessante Themen für Sie zusammen gestellt, die unter anderem mit Beiträgen unserer Freunde aus Österreich, und der Nord Irland kommen. Der Länderfocus befasst sich in dieser Ausgabe mit unseren Freunden aus Bulgarien.

Heinz Kölking
President EVKD

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PRODUKTIVES MEETING DES EXEKUTIVKOMITEES IN AMSTERDAM

Am 24. Mai trat das Exekutivkomitee zum 96. Mal zusammen. Das Meeting fand in Amsterdam statt; als Gastgeber fungierte freundlicherweise unserer neuer EVKD Industriepartner Arcadis.

Wie immer war der Terminkalender voll gepackt; das Exekutivkomitee besprach eine Vielzahl wichtiger Angelegenheiten, beispielsweise die Möglichkeiten, wie wir unsere griechischen Kollegen angesichts der Absage des Athener Kongresses im letzten Jahr beistehen können. In einem Akt der Solidarität zeigen sich viele nationale Vereinigungen willens, der griechischen Vereinigung bei der Wiederherstellung nach dieser Situation zu helfen, damit sie wieder vollständig an EVKD Aktivitäten teilhaben kann.

Zudem wurde im Meeting der Vorschlag für ein neues Arbeitsmodell für die Vereinigung vorgelegt: IMPO. Diese Idee von Generalsekretär Willy Heuschen und seines Assistenten Jos Vanlanduyt steht hierbei für Inputs, Management, Processes und Outputs. In Amsterdam stellte Heuschen das Modell vor und erklärte das Konzept dahinter, was von sowohl dem Vorstand als auch dem Exekutivkomitee positiv aufgenommen wurde. Das Modell wird später in diesem Jahr in Luxemburg ausführlicher diskutiert und allen Kongressmitgliedern vorgestellt werden.

Eine weitere spannende Nachricht des Meetings war die Festlegung des EVKD Kongresses 2016. Nach reiflicher Diskussion zweier großartiger Kandidaten (Italien und Nord Irland) einigte sich der Vorstand darauf, ANMDO als Kongressorganisatoren von 2016 zu ernennen. Die Details erwarten noch weiterer Organisation, doch ANMDO und die EVKD freuen sich, bereits jetzt alle Mitglieder 2016 nach Bologna einladen zu dürfen.

Zu den weiteren Geschäftsangelegenheiten zählen eine Aktualisierung der Arbeit aller Unterausschüsse sowie das vorläufige Budget für 2014.

EVKD HEISST NEUES MITGLIED WILLKOMMEN: NORD IRLAND

Mit großer Freude teilt die EAHM mit, dass die Nord Irland Division des ‚Institute für Health Management' der Vereinigung beitreten wird.

Präsident Heinz Kolking und Generalsekretär Willy Heuschen reisten im Mai nach Belfast, um einige der Mitglieder der Vereinigung kennenzulernen und die Stadt als mögliche EVKD Kongressdestination einzustufen.

Louise McMahon, Vorstand des ‚Institute for Health Management Northern Ireland' (IHM NI) wird einen Platz im Exekutivkomitee sowie im Unterausschuss für Europäische Angelegenheiten einnehmen. Bei einem Vortrag während des jüngsten Meetings des Exekutivkomitees in Amsterdam betonte McMahon das Engagement des IHM NI für Europa und Europäische Angelegenheiten und unterstrich, dass sie sich auf eine erfolgreiche Zusammenarbeit freue. Der Generalsekretär gab seine Freude zum Ausdruck, einmal mehr Verbindungen in das Vereinigte Königreich zu haben, wenn auch mit einer örtlichen Vereinigung, und hoffte, dass die Zusammenarbeit dabei helfen würde, den Kontakt zur UK-Vereinigung wieder neu aufzubauen.

IHM NI wird nach der Zustimmung durch die Generalversammlung im November in Luxemburg offiziellen Mitgliedstatus erhalten.

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Health Management Training in Nord Irland

(E)Hospital sprach mit zwei Managern aus Nord Irland, die ihren Kurs,HSC Management Training Scheme' abgeschlossen haben: Louise McMahon, Vorstand des ‚Institute of Health Management Northern Ireland Division' schloss diesen Kurs als junge Hochschulabsolventin ab und stieg rasch die Karriereleiter zum ‚Director of Performance and Service Improvement' am ‚Social Care Board' empor; Karen Hamill ist derzeit dabei, den Kurs abzuschließen, vor ihrem Eintritt in das Gesundheitswesen arbeitete sie im juristischen Bereich.

Beide Frauen betonen die Vorteile des soliden Ausbildungsprogramms, das mehrere Praktika und außerdem die, Cooks Tour' umfasst: Hier erhalten Kursteilnehmer die Möglichkeit, die Arbeit von Angestellten aus allen Bereichen des Krankenhauses hautnah mit zu verfolgen, vom Krankenhausportier über Ärzte bis hin zum Management. Dies erlaubt den Teilnehmern eine einzigartige Einsicht in die täglichen Arbeitsvorgänge eines Krankenhauses. Beide Frauen sind davon überzeugt, dass diese Erfahrung ihnen im Verlauf ihrer gesamten Laufbahn helfen wird. Jeder Teilnehmer wird zudem einem Mentor zugeteilt – meist ein Senior Manager des Gesundheitswesens –, den er oder sie um Ratschläge bitten und von deren jahrelangem Erfahrungsschatz er oder sie lernen kann. Ein ‚buddy' wiederum ist ein junger Hochschulabsolvent, der oder die mit allen Fragen zum Ausbildungsprogramm helfen kann.

Aus- und Weiterbildung von Krankenhausmanagern in Österreich

Von Klaus Watzinger

Seit mehr als 30 Jahren hat das ‚Austrian Institute of Health Care Management' (AIH) 400 hochqualifizierte Manager von Gesundheitsorganisationen ausgebildet. Zusätzlich wurden tausende Angestellte und andere Manager von Gesundheitsorganisationen in allgemeinen und speziellen Kursen ausgebildet.

Alle Kursteilnehmer sehen ihre Fortbildung als wichtige Qualifikation für ihre berufliche Tätigkeit. Manche engagieren sich später im AIH als Kursleiter und übermitteln so ihr Wissen zusätzlich zu ihrer umfassenden beruflichen Erfahrung.

Es hat sich also gewissermaßen ein Schaltkreis des Wissenstransfers entwickelt, mit immer aktuellen Kenntnissen der sich fortwährend verändernden Umstände des Krankenhausmanagements – eine ideale Form des Kenntnis- und Wissensmanagements.

Wertschöpfendes Management von Krankenhaus-Immobilien

Von Johan van der Zwart et Theo van der Voordt

Heutzutage werden in das strategische Management von Immobilienanlagen – zusätzlich zur Kosteneffektivität – zunehmend auch mögliche Beiträge durch Immobilien für die Leistung einer Einrichtung eingebaut. Die vorliegende Arbeit untersucht das Konzept der Wertschöpfung durch Immobilien und auf welche Weise dieses Konzept auf das Design und das Management von Krankenhaus-Gebäuden angewandt wird. Die Wertschöpfung durch Immobilien ist ein multidimensionales Konzept, an dem mehrere Interessensvertretungen beteiligt sind. Stimulierende Innovation, die Verbesserung der Patienten- und Angestelltenzufriedenheit sowie die Förderung einer sich verändernden Kultur haben bei Interviews mit CEOs, Immobilienmanagern und Projektleitern in Krankenhäusern einen hohen Stellenwert. Immobilien-Interventionen werden zudem zur Unterstützung von Arbeitsproduktivität, Flexibilität und Kostensenkung eingesetzt. Erstaunlicherweise werden Risikomanagement und Möglichkeiten des Einsatzes des Geldwerts von Immobilien zur Finanzierung organisatorischer Prozesse als wichtige Wertzuwächse der Krankenhausimmobilien viel zu wenig anerkannt. Zudem scheint es unterschiedliche Prioritäten zu geben in der Einweihungsphase im Vergleich zur Gebäude-in-Betrieb-Phase.

Verhinderung des Kommunikations-Zusammenbruchs bei Übergabe des Pflegedienstes

Von John S. Carroll, Michele Williams, Theresa M. Gallivan

Zusammenbrüche in der Kommunikation gelten als Problemquelle in komplexen Arbeitsumgebungen wie der krankenhausbasierten Gesundheitsversorgung. Die Autoren der vorliegenden Arbeit führten eine multimethodische Untersuchung von Veränderungen der Übergabe zwischen Krankenpflegepersonal durch (in den USA: ‚Handoffs'); hierzu zählten Interviews, Umfragen, Audioaufnahmen und die direkte Beobachtung von Übergaben, post-Übergabe Fragebögen und das archivarische Kodieren von Patientenakten. Die Autoren fanden erhebliche Unterschiede innerhalb der Abteilungen, zwischen den einzelnen Pflegern und Schwestern und, etwas überraschend, auch für unterschiedliche Rollen. So hatten ein- und austretende Krankenschwestern unterschiedliche Erwartungen an eine gute Übergabe: Eintretende Krankenschwestern wollten eine Konversation mit Fragen und Augenkontakt, während austretende Krankenschwestern vor allem ihren Bericht ohne Unterbrechungen vorstellen wollten. Krankenschwestern mit mehr Erfahrung kürzten ihre Berichte ab, wenn eintretende Schwestern den jeweiligen Patienten kannten, jedoch antworteten die eintretenden Schwestern mit einer

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großen Anzahl an Fragen, womit ein gewisser „Wettbewerb für die Kontrolle" entstand. Die Ergebnisse weisen darauf hin, dass jeder Versuch, die Übergabe in der Pflege oder in anderen gesundheitlichen Berufen zu standardisieren und zu verbessern, sowohl die Übertragung von Information als auch den Beziehungsaufbau als Kommunikationsaspekte berücksichtigen sollte.

Pharmakologische Betreuung für Patienten mit Brust- und Eierstockkrebs

Von Ulrich Jaehde et al.

Die individualisierte Patientenbetreuung könnte dabei helfen, die Inzidenz unerwünschter Arzneimittelereignisse bei systemischer Krebstherapie zu senken. Die vorliegende Studie hatte zum Ziel, die Machbarkeit und das Potential zusätzlicher pharmazeutischer Betreuung für Brust- und Eierstockkrebs-Patientinnen zu untersuchen. Es handelte sich um eine prospektive, Multizenter Kohortenstudie mit einer Kontrollgruppe. 98 Patientinnen mit Mamma- oder Ovarialkarzinom wurden aus ambulanten Onkologie-Kliniken sowie aus onkologischen Praxen rekrutiert: die Kontrollgruppe erhielt zunächst die standardmäßige Betreuung, die Interventionsgruppe erhielt zusätzlich zur Implementierung der pharmazeutischen Betreuung eine Patientenschulung über das Management von behandlungsassoziierten unerwünschten Ereignissen sowie die Optimierung der unterstützenden Medikation.

In die Kontrollgruppe waren 48 Patientinnen eingeschlossen, 50 in der Interventionsgruppe. Von allen Patientinnen zeigten 35,4% der Kontrollgruppe vs. 76,0% der Interventionsgruppe ($p<0,001$) ein vollständiges Ansprechen auf die antiemetische Prophylaxe. Der Schweregrad der akuten und der verzögerten Nausea wurde durch die zusätzliche Intervention nicht vermindert. Die globale Gesundheitsskala und zwei Symptomskalen (Übelkeit und Erbrechen, Appetitverlust) des EORTC QLQ-C30 Fragebogens wurden durch die pharmazeutische Betreuung positiv beeinflusst.

Patientinnen mit Brust- und Eierstockkrebs scheinen von pharmazeutischer Betreuung zu profitieren, entsprechend der verbesserten Beurteilungen aus Patientinnensicht wie etwa emetische Episoden, Lebensqualität und Patientenzufriedenheit nach Implementierung.

Fokus: Bulgarien

Die ‚Stara Planina' Regionale Krankenhausvereinigung unterstützt örtliche Krankenhäuser, um den Zugang zu qualitativ hochwertigen Gesundheitseinrichtungen verbessern, durch optimalen Gebrauch und Entwicklung von Ressourcen, Gewinnung neuer Partner und flexiblen Reaktionen auf Ver-

änderungen der Gesundheitsbedürfnisse. Die Bemühungen fokussieren auf innovative und flexible Ansätze, die sich speziell an die Verantwortung von Einzelpersonen und Gruppen richten, auf neue Ideen und neue Aktionen ebenso wie den Gebrauch verfügbarer Ressourcen. Die Programme der Vereinigung basieren auf den Grundsätzen der Kommunikation und Kooperation auf regionaler und internationaler Ebene, um den Fortschritt hin zu einer besseren Gesundheit aller Mitbürger zu beschleunigen.

AGENDA 2013

August

ESC Congress 2013 31-04
Amsterdam, The Netherlands
www.escardio.org/ESC2013

September

Hospital Build and Infrastructure Europe 3-4
Hamburg, Germany
www.hospitalbuildeurope.com

CIRSE 14-18
Barcelona, Spain
www.cirse.org

The European Cancer Congress (ECCO, ESMO, ESTRO) 27-1
Amsterdam, The Netherlands
http://eccamsterdam2013.ecco-org.eu

October

European Health Forum Gastein 2-4
Gastein, Austria
www.ehfg.org

ECISM Lives 2013 5-9
Paris, France
www.esicm.org

Management in Radiology (MIR) 10
Barcelona, Spain
http://mir-online.org/

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Hospital Management in Times of Crisis: Constraints, Challenges and Opportunities

24th EAHM Congress Luxembourg 2013

IN THE NEXT ISSUE OF *(E)HOSPITAL*:

- 24th EAHM Congress Luxembourg 2013
  Hospital Management in Times of Crisis: Constraints, Challenges and Opportunities
- Management by Process Reengineering
- Modern OR
- Supplement: Endovascular
- Focus: Luxembourg

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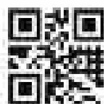

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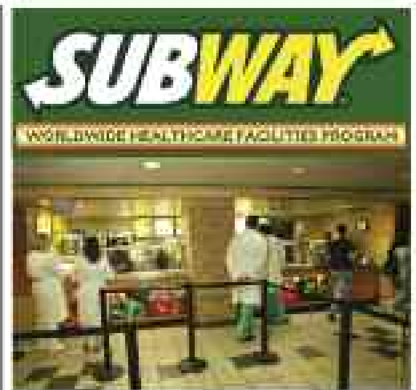

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