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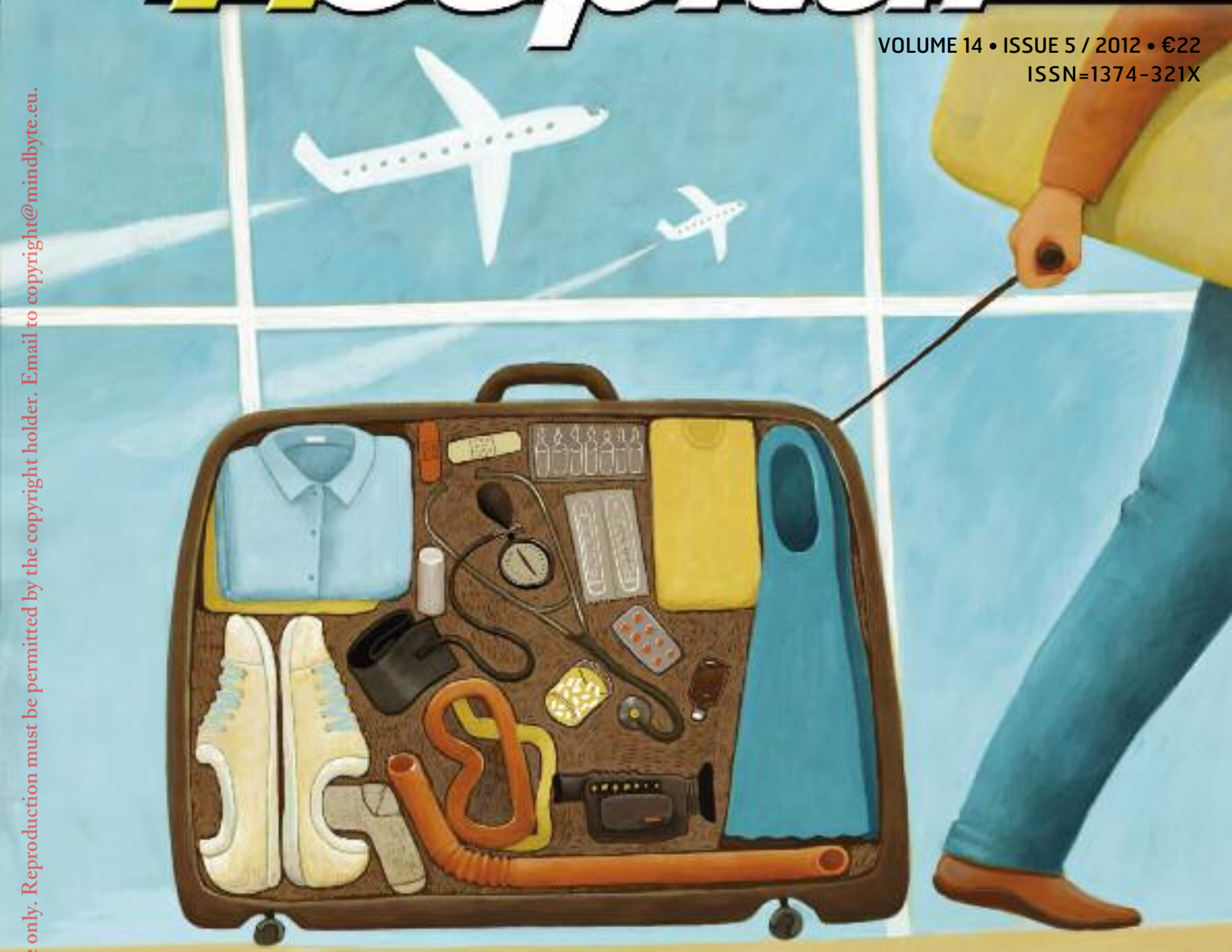

PUTTING THE CROSS-BORDER HEALTHCARE DIRECTIVE IN HOSPITAL PRACTICE

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OUR EUROPEAN **RESPONSIBILITY**

Heinz Kölking

Today, Europeans do not have it easy. The various consequences of the economic and financial crises are obvious. Erroneously, these problems are associated with the union. Moreover, there is an increasing trend of countries moving back to nationalism and particularism. Even on a national level we cannot ignore endeavors to separate.

Therefore it is all the more important that Europe is further developed in its responsibility. There are institutions for this and these institutions are there to be used. Europe is there for the people. It is therefore important that all of us, every man in his own sphere of activity improves the conditions for a common Europe. We do this in the EAHM through exchanging dialogue and experiences in our hospitals for the good of the people: patients and staff. To quote the philosopher Karl Raimund Popper:

"We are all responsible for what is coming. So it is the duty of all to predict something bad and to work for those things that can make the future better"

Like last year, the EAHM held a seminar during Medica in Dusseldorf, the world's largest medical trade fair. It was again about the European Directive on Crossborder Healthcare. Last year's seminar focused on the various expectations of the Directive, examined from the different actors perspectives. This year it was time to question the actual implementation from the perspective of management in the hospital. Of particular importance is the quality of the structures, processes and outcomes. The definition of standards and comparability is one essential requirement for health services offered in Europe. Based on the results of our survey, this process will be further discussed within the committees of the EAHM.

The work of our association was not left unharmed by the financial crisis. All countries in Europe have been forced to economise and this has had considerable effects on the national budgets. In Europe, the financing of hospitals is partially or entirely a public responsibility. The effects can be dramatic. In this context, we believe it is our duty to work for the success of those hospitals and to stress the importance of healthcare as a social pillar. In addition, hospitals are always recognised as a regional economic power, employing a considerable number of people.

The activities of the association have also been directly affected by the crisis. The cancellation of this year's EAHM Congress in Athens was painful but inevitable in view of the situation in Greece. The effects of this decision will remain with us for a while. We will look together with our Greek colleagues to support Greece and bring the congress there some time in the foreseeable future.

Nevertheless, we will hold a congress in Luxembourg 28-29 November 2013 and we are very grateful that our colleagues in Luxembourg have offered to organise this at such short notice. We will then move back to our regular rhythm with the 2014 Congress in Germany. The German Association of Hospital Directors are hard at work organising the conference taking place in Berlin on 10- 13 September 2014.

This issue of *(E)Hospital* includes many interesting topics for you to enjoy. Our cover story reports on the recent EAHM seminar in Dusseldorf and other articles include business performance, the nursing environment and a specialist supplement on information technology. The country focus introduces us to healthcare in Romania.

Heinz Kölking
President EAHM

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

Putting the Cross-Border Healthcare Directive in Hospital Practice: How to Manage Quality

The EU Directive on patients' rights in cross-border healthcare entered into force on 24th April 2011. Transposition into national law by the respective Members States should be done by 25 October 2013. During this transposition process, the EAHM believe that actors involved at the hospital management should express their vision on this topic and should comment on the actions to be taken. It is for this reason that the seminar was organised: to exchange information and experiences at a European level.

Information Technology Special

This issue we have a special Information Technology (IT) supplement introducing us to two important new concepts in the IT world: Real Time Location Systems (RTLS) and Cloud Computing. James Stahl explains exactly what RTLS are and how they can be used in the hospital environment for inventory management, operation measurement and analysis and also for clinical purposes. The other two articles deal with cloud computing. Fernández-Cardeñosa et al. provide us with a definition of cloud computing and analyse how cloud solutions can be applied in the EHR environment and Danois focuses on the use of the cloud to share medical image data.

Focus: ROMANIA

Political changes in 1990 also affected the Romanian health system, which has gradually become two-tiered with a strong state component and a poorly represented private one, still to grow at national level. The health system is mainly financed from the state budget (3-4% of the GDP), funds being raised by collecting health insurance contributions from the population (both the employee and the employer must pay for healthcare). However extended the system may be, funds fail to cover the real costs of healthcare and do not allow the public system to invest in infrastructure and state-of-the-art equipment all over the country.

42nd ORDINARY GENERAL ASSEMBLY
16/11/2012, DUSSELDORF, GERMANY

President of EAHM, Mr. Heinz Kölking welcomed members to the General Assembly. This year's agenda and the minutes from the 41st Ordinary General Assembly were unanimously approved. After this it was time for Mr. Kölking's EAHM activity report. The objective of this report is to highlight the most important issues and special developments since the last meeting in Dusseldorf 2011.

in Greece and all parties were willing to work hard but earlier in the year the difficult decision was made to cancel the congress. Kölking stressed that it would have been irresponsible to continue as there were too many indications from potential participants that there would not be a sufficient number of delegates or sufficient support from the local industry.

The President added that the recent escalation of the financial situation shows that the right decision was made. The consequences are painful for both the Greek and European association and the EAHM is doing everything possible to make these consequences bearable for all. The Executive Committee will discuss

the Subcommittee on European Affairs (SCEA). The President also took this opportunity to thank the SCEA for their hard work in preparing this year's Cross-Border Healthcare Seminar and believes it was a success with high calibre speakers and content. The results of the seminar will help the EAHM with its future work.

Moving on to economic matters, the President remarks how the EAHM is directly dependent on trends in countries that support our association. There are changes (in terms and conditions) and we need to make sure that national level changes have an impact on EU level. He used the example of Sweden and the fact that the national association ceased to exist

Photo 1: Members of the EAHM Board (left to right) Mieczyslaw Pasowicz, Heinz Kolking, Willy Heuschen, Gerry O'Dwyer

Activity Report

The President began by informing the General Assembly that there have been three Executive Committee meetings (Brussels, Turin and Paris) and the Board has met twice (Paris and Dusseldorf). Moving on to discuss the main activities of the past year, Mr. Kölking explained that the EAHM's major activities have revolved around the economic situation in Europe and Greece in particular. As we are all aware, we intended to hold our congress

this matter further at the next meeting as will the Presidium in December. He stressed that we need to reflect on the way in which we organise our congresses in the future so we can negate the risks.

Kolking continued his report thanking Marc Hastert and the Luxembourg association for offering to host the smaller 2013 congress. Preparation is already in full swing. This will be followed by the congress in Berlin in 2014. The situation has put a large workload on the shoulders of the Scientific Subcommittee and

overnight. Organisations like the EAHM need to keep up with the tempo of the time.

On a positive note Mr. Kolking used his activity report to announce the re-election of Mr. Willy Heuschen as Secretary General of the EAHM. As the previous term had ended, the association invited candidates and interviewed an applicant in Paris. The Board decided the decision should fall on the Presidium and shortly after Mr. Heuschen was offered, and accepted the post.

The President concluded his report

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reiterating the important role EAHM has to play in Europe. Although in one sense we are in the background, we can also influence and it is worthwhile to communicate; a social Europe is far more important than money and is something worth fighting for.

Accounts for 2011 and Economic Plan for 2013

Secretary General, Mr. Willy Heuschen presented the accounts and economic plan for 2013. He explained that the 2011 budget approved by the General Assembly envisaged a surplus of €4,050 but 2011 ended with a deficit of €3,928.93. The reasons for this discrepancy can be explained partly by the lower actual revenues compared to those estimated in the 2011 budget. This relates back to the lack of revenue from the congress as well as a lower income from the partnership with companies in the medical-social sector.

compared to 2010 and now stands at €23,126.14 for the years 2010 and 2011. Unlike previous years, these contributions are recoverable. He also highlights that we have had no growth in capital in previous years. It has decreased by 3.09% compared to 2010. This reduction greatly affects the balance sheet and it goes without saying that we must be careful to avoid future decline.

Moving to the economic plan for 2013 and new rates for membership fees, Mr. Heuschen told the General Assembly that the board proposes to set fees for ordinary members based on those of 2012 indexed linearly from 3%. This increase is necessary to cope with the increase in prices. In addition, an increase of €100 is proposed to adapt the annual fee for associate members.

He explained that the EAHM are working closely with the Federation of Hospitals Luxembourg to ensure that the 2013 conference is a success. Knowing

Photo 2: Mieczyslaw Pasowicz, Heinz Kolking, Willy Heuschen

Heuschen highlighted the positive impact of the new industry partnerships on our long-term strategy and thanked partners Ecclesia and Becton Dickinson for the fruitful and enriching exchange. He also took this opportunity to announce that a third partnership has been signed with Arcadis.

Despite the deficit for the year 2011, the Secretary General was happy to declare that the EAHM is financially stable. The remaining balance of unpaid contributions has been reduced by €3,116.85

that the organisers are already paying a deposit of € 6000 in 2012, we can estimate a revenue of € 10,000 from the congress. Concerning revenue related to the congress, the Board will adapt the existing financial settlement in order to achieve a better distribution of income, especially in relation to the years when congresses did not take place.

Also in the economic plan for 2013 is the goal to find three additional partners. There are real opportunities to achieve this goal and the estimated revenue is like last year €60,000.

On the expenditure side, the proposed budget is the same as the previous year apart from a few minor adjustments due to the increase in prices. As extraordinary expenses, €3000 will be used to reimburse the Greek Association for the deposit paid for the 2012 Congress, which had to be cancelled. €7,000 has also been set aside for new activities after the success of the IT seminars.

Membership

On a positive note, the EAHM welcomed a new associate member. After successful collaboration in the past the General Assembly unanimously agreed to accept the Luxembourg Association IUIL into the European Association of Hospital Managers as an associate member.

There was however, also some sad news. After a long process of reflection the Turkish Association was proposed for exclusion from the association. This decision was not taken lightly and is not because they cannot pay their membership fees (it is not our policy to exclude those in financial difficulty) but there was no other option than to exclude. This action was agreed by the General Assembly.

The last two items on the agenda involved presentations. The first came from Mr. Marc Hastert who introduced the 2013 EAHM in Luxembourg. He explained the topic and general programme and detailed the next steps in preparation. He concluded his presentation asking all members to publicise the congress within their national associations.

Our latest industry partner Arcadis then took to the floor to introduce themselves and their services. Leo Van der Kemp described the EAHM and Arcadis partnership as a "perfect match" and expressed how much he is looking forward to working with the association.

With no questions from the floor Mr. Kolking closed the meeting informing members that the next General Assembly will be held at the 23rd Congress of the EAHM in Luxembourg, November 28th 2012.

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

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TURNING THE TIDE: RESETTING THE COURSE OF HEALTH AND SOCIAL CARE IN NORTHERN IRELAND

The Northern Ireland division of the Institute of Healthcare Management met in November of this year in the iconic surroundings of Titanic Belfast to discuss how best to cope with current changes within the sector. An international affair, presenters came from Wales, Ireland and Europe to show delegates different processes of change. Key issues raised centred around quality, the importance of leadership, meaningful change and creativity.

One important outcome from the conference was the signing of a Memorandum of Understanding (MOU) between Northern Ireland Health Minister, Edwin Poots and Rafael Bengoa, Regional Minister of Health and Consumer Affairs in the Basque Government. The administrations have developed a strong working relationship meeting in Brussels and Bilbao. A study group from the Basque country also attended the conference. Poots said both Ministers understood that their devolved administrations faced similar challenges of ageing populations and limited budgets. He said the MOU offered both regions an opportunity to draw on each other's experiences and expertise and added that international collaboration would ensure patients get the best possible care.

"In May, Dr Bengoa's administration and my Department agreed to work together to tackle the common challenges facing our healthcare systems. We agreed to strengthen links between health, science and industry and to improve learning on systems and health technologies across our two regions. We also recognised that closer co-operation in this area has the potential to unlock key European Union healthcare funding."

The Memorandum of Understanding focuses on closer cooperation on Connected Health and Social Care between Northern Ireland and the Basque Region. It has five themes, which are:

- To promote a think tank for policy development;
- To facilitate learning networks;
- To develop the two regions as living laboratories for research;
- To explore scope for innovate public procurement; and
- To establish an evaluation network.

Speaking to delegates at the gala dinner, Mr Poots spoke of his determination to drive through the reform of health and social care to deliver better outcomes for all service users. He stressed the vital role healthcare managers have to play in delivering change by providing leadership. Mr Poots told delegates he expected them to challenge, advise, communicate and guide where appropriate. He said that change is vital and that it should not be feared and urged collaboration between healthcare institutions and the government, "change is rarely best achieved by top down imposition. Rather change needs to be discussed and debated so that the views of all those affected can be taken into account."

Photo 1: Dr. Bengoa and Mr. Poots signing the memorandum

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

HEALTH SPENDING IN EUROPE IN 2010 FELL FOR THE FIRST TIME IN DECADES

Health spending per person and as a percentage of GDP fell across the European Union in 2010. This is one of the many findings in the "Health at a Glance: Europe 2012", a new joint report by the OECD and the European Commission. From an annual average growth rate of 4.6% between 2000 and 2009, health spending per person fell to -0.6% in 2010. This is the first time that health spending has fallen in Europe since 1975.

In Ireland, health spending fell 7.9% in 2010, compared with an average annual growth rate of 6.5% between 2000 and 2009. In Estonia, health expenditure per person dropped by 7.3% in 2010, following growth of over 7% per year from 2000 to 2009, with reductions in both public and private spending. In Greece, estimates suggest that health spending per person fell 6.7% in 2010, reversing annual growth of 5.7% between 2000 and 2009.

While the report does not show any worsening health outcome due to the crisis, it also underlines that efficient health spending is necessary to ensure the fundamental goal of health systems in EU countries.

Spending on disease prevention accounts for only 3% of total health spending

Governments, under pressure to protect funding for acute care, are cutting other expenditures such as public health and prevention programmes. In 2010, the expenditure was 3.2% less than the year before. This means that on average across EU countries, only 3% of a shrinking health budget was allocated to prevention and public health programmes in areas such as immunisation, smoking, alcohol drinking, nutrition and physical activity. The report emphasises that spending on prevention now can be much more cost-effective than treating diseases in the future.

The OECD and European Commission's Health at a Glance: Europe 2012 presents key indicators of health status, determinants of health, healthcare resources and activities, quality of care, health expenditure and financing in 35 European countries, including the 27 EU member states, five candidate countries and three EFTA countries.

Other findings from the report include:

- Health spending as a share of GDP was highest in the Netherlands (12%) in 2010, followed by France and Germany (11.6%). The share of GDP allocated to health was 9.0% on average across EU countries, down from 9.2% in 2009.
- Doctors: The number of doctors per capita has increased in almost all EU member states over the past decade from an average 2.9 per 1 000 population in 2000 to 3.4 in 2010. Growth was particularly rapid in Greece and the United Kingdom. Nevertheless, future shortages of health workforce remain a serious concern in many European countries.

For more information, please visit: **www.oecd.org/health/healthataglanceeurope.htm**

Table 1. Annual average growth rate in health expenditure per capita, in real terms, 2000 to 2010 (or nearest year)

Country	2000-2009	2009-2010	Country	2000-2009	2009-2010
Proportion of Ireland	6.5	-7.9	Portugal	1.8	0.5
Estonia	7.2	-7.3	France	2.1	0.8
Greece	5.7	-6.7	Italy	1.3	1.0
Lithuania	8.9	-5.0	Sweden	3.4	1.2
Czech Republic	6.0	-4.4	Netherlands	5.5	2.0
Denmark	3.2	-2.1	Hungary	3.1	2.2
Slovenia	3.9	-2.0	Slovak Republic	10.9	2.4
Spain	4.1	-0.9	Germany	2.0	2.7
EU 24	**4.6**	**-0.6**	Malta	3.5	3.6
United Kingdom	4.9	-0.5	Romania	5.6	4.2
Cyprus	2.7	-0.2	Iceland	1.6	-7.1
Austria	2.2	0.1	Norway	2.9	-2.0
Belgium	3.8	0.2	Croatia	3.1	-1.2
Finland	3.9	0.4	Switzerland	2.0	1.4
Poland	7.1	0.5			

Source: Health at a Glance: Europe 2012 (based on OECD Health Data 2012; Eurostat Statistics Database: WHO Global Expenditure Database)

PUTTING THE CROSS-BORDER HEALTH-CARE DIRECTIVE IN HOSPITAL PRACTICE: **HOW TO MANAGE QUALITY?**

Mr. Heinz Kölking, President of EAHM welcomed and thanked the speakers from across Europe and introduced the topic of the seminar: The European Directive on Cross-Border Healthcare. The deadline for implementation is less than a year away (25 October 2013) and it has been a key focus for the EAHM over the past year. He cast delegates' minds back to last year's seminar when the Directive was also the main topic for discussion. We discussed the possible consequences of the Directive and our expectations and it was clear that there would be a direct impact on hospitals. It is for this reason that this second seminar was organised and the aim of the day is to set out concrete goals for hospital managers. Before handing over to the first presentation of the day Mr. Kölking stressed that the buzz words of the seminar will be quality management, setting standards and comparability.

Catherine Lucet (BEL), Richard Dooley (IRL), Alexandre Lourenco (PRT), Marc Hastert (LUX)

The Results of the Questionnaire on Quality and Patient Information in Hospitals

First to present was Marc Hastert, President of the EAHM European Affairs Subcommittee and Secretary General of the Luxembourg Hospital Federation. He presented the results of our national survey on quality and patient information in hospitals.

EAHM formulated the survey for its members to complete during the transposition process of the Directive. Believing that actors involved at the hospital management level should express their vision on the quality and patient information topics and should comment on the actions to be taken. Particular emphasis should be given to areas of action on which hospital managers have a decisive influence. The quality management and quality indicators and associated standards are undeniably part of this.

The questionnaire is a good way of clarifying the role of hospital managers and illustrating the importance of pursuing a common strategy.

Hastert presented the main results of the questionnaire and also stressed that it is still open and urged members to complete the survey and pass it on to relevant colleagues. This is just a first step and will help indicate what our next step as an association should be.

Responses from the national association tell us that most countries have national legislation to deal with information. Actions and decisions are taken on national/regional and in some countries municipal level. In general, hospitals in Europe have a legal obligation to provide information to patients with the government or other bodies playing a relevant role in organising this information (standards, guidelines, accessibility, patient rights, complaints procedures etc). However, this information is often not accessible to the public.

Moving on to answers provided by hospital managers, Hastert explained that we discovered some very interesting information regarding quality. Most hospitals include quality in their mission statement and for many, quality is defined on an internal level. The survey confirms the role of hospital managers in delivering quality: 93,22% of hospital managers say they are involved in organisational quality and 77,97% of hospital managers say they are involved in clinical quality.

When asked if quality is part of the evaluation of their work 50,85% of the hospital managers agreed, with quality control as part of audits on patient satisfaction, clinical quality, good practices and risk management. However, the survey also showed that 32,20% of the hospital managers believe quality of care is not part of the evaluation of their work.


Alexandre Lourenco (PRT)

Most of the organisations (90,70%) got an external evaluation and are accredited or certified. The accreditation or certification has generally been done on a voluntary basis, otherwise due to legal obligations or following a governmental initiative.

Moving on to quality reporting, the survey shows that 61,90% of hospital managers answered that reporting of quality of care given by hospitals is a legal obligation and the reporting is done by the hospital. 57,69% of reporting is benchmarked, mostly by the hospital federation (40%) or by third parties (33,33) or the authorities (20%). Although 57,62% of the hospital managers answered that the annual report of the hospital includes a section on quality in a structured way but 10,17% answered that it doesn't and 32,20% didn't answer.

On a more positive note many countries have success stories to share. Belgium have been shortening waiting lists, Germany report better procedures and good results (awards) as do Luxembourg and Portugal has seen claim reduction and increased satisfaction.

Concluding the results from the questionnaire, Hastert explained that the main barriers in enabling quality improvements can de determined as funding, time and obtained comparability.

Implementing the Cross-Border Healthcare Directive in a NHS Country

Alexandre Lourenço, Executive Board Member at Central Administration of the Health System introduced delegates to the National Health Service (NHS) in Portugal and how they are progressing with the implementation of the Directive. Like many countries in the EU, the economic outlook is difficult with an ageing population forcing increased spending teamed with increased unemployment, uncertainty and financial shortfall.

Lourenço explained that Portugal spends less than other countries and the healthcare system has recently been restructured resulting in dramatic changes. Hospital reform must be sharp to reduce spending while ensuring the provision of quality care. Portugal uses several accreditation programmes including Joint Commission International and CHKS. Hospitals have quality and performance indicators to adhere to. Since September 2011, monthly information is published online on hospital performance for each NHS hospital. Indicators include economic and financial, capacity utilisation, human resources/productivity, inpatient care, surgery, outpatient care and emergency department.

Lourenço concluded that Portugal sees opportunities in the Directive for economic growth and also a health internationalisation programme.

Using Quality to Drive Transformation

Richard Dooley, President of the Health Management Institute in Ireland gave an interesting presentation on quality improvement in Ireland in line with the reform of the healthcare system. There are several bodies and systems for quality assurance.

Nicholas Decker, EPECS

Catherine Lucet (BEL)

Richard Dooley (IRL)

Ireland has a Health Information and Quality Authority (NIQA), which was established as a statutory authority in 2008. The main responsibilities of HIQA include driving improvements in the quality and safety of healthcare on behalf of patients, developing standards across services, monitoring and reporting on compliance with standards and health technology assessments. At hospital level this equates to accreditation inspections for services e.g. breast cancer services against prescribed performance criteria, announced/unannounced visits to confirm appropriate governance (including clinical) over service areas e.g. infection control, emergency departments.

The government launched the National Standards for Safer Better Healthcare in June 2012 and HIQA has the authority to monitor compliance. These national standards are for health service users to understand what high quality and safe healthcare should be; what users should expect from a well-run service and for service users to clearly voice their expectations. Compliance with these standards will lead to all hospitals being licensed on a statutory basis by 2015. There is also a Quality and Clinical Care Directorate which oversees the implementation of national standards, clinical governance, system audits and clinical audits.

The Quality of Hospital Services in Luxembourg

Sylvain Vitali from the Hospital Federation of Luxembourg believes that hospital managers are key stakeholders in defining national targets and actors for the local deployment. Preparations for the transposition of the Di-

Heinz Kolking, President EAHM

rective in Luxembourg include the formulation of a new law for the rights and obligations of patients and the development of e-santé a national agency to share electronic health records throughout the country.

Quality is defined and assessed by a national committee for the quality of hospital care (CoNaQual-PH) and an evaluation committee. Hospital managers are active and responsible for the quality of services within their hospitals. There is a system of quality and performance indicators and benchmarking on a national level.

To conclude Vitali explained that the implementation of the Directive has forced Luxembourg to increase transparency, include transparency of costs and has promoted inter-hospital collaboration for both patient care and logistics. An informed patient will receive high quality and efficient healthcare.

Hospital Performance Indicators in Europe and in Belgium

Dr. Catherine Lucet, an independent consultant in public health in Belgium gave an informative overview of hospital performance indicators in Europe and Belgium.

Putting the Belgian system in context, Lucet explained that the Ministry of Health has put in place quality contracts but these must evolve and show results. Multi-dimensional feedback is not widely used and there is a need for the standardisation of performance indicators. She also stressed that Belgium could better use the wide base of data already available.

Lucet cited numerous international projects on quality and performance indicators including the European PATH Programme with Great Britain, France, The Netherlands, Germany, Luxembourg, Denmark, Sweden and Italy. Her critique of the current Belgian situation centred around the lack of multi-dimensional projects. There are many different initiatives but these are fragmented. Interviews with representatives in hospitals have shown that there is lack of ties between vision, objectives and the performance indicators. Moreover, hospitals are not prepared enough to use indicators outside of financial activity. So before implementing a series of indicators clear priorities must be set and indicators developed in line with these priorities and goals. Goals should include increased accountability as well as efficiency. Lucet also believes these indicators should be based on actual experiences and healthcare professionals should be involved in their development. They should be tested before widespread implementation and regularly monitored.

Quality Management with the Involvement of the Medical Service Provision

The last presentation came from our German colleague Dr. Matthias Schrappe. Schrappe gave the physician perspective on quality management. He questioned the data we currently have access to: Are we asking the right questions? Are we collecting the right data? He also stressed the importance of using the data to control and improve our healthcare services, especially as increasing life expectancy is putting increasing pressure on quality and safety.

There is currently a lot of data available in Germany, much of which is available to view online but Schrappe stresses that this data is only useful to those who understand the questions. Data is available for issues such as infection and patient safety. DRGs also include a quality incentive as does the use of checklists (e.g. WHO safe surgery checklist).

Schrappe believes patients also have a role to play. They should be more active, asking questions. He believes this is a problem for the leadership and is something that needs to be addressed.


Irish delegates enjoying the seminar

Roundtable Discussion

After the series of engaging presentations Jacques Scheres, Maastricht University Medical Centre, chaired a vibrant roundtable discussion of the issues raised during the presentations and the Directive in general.

Belgian delegates enjoying the seminar

Before the discussion got underway Scheres introduced another panel member, Nicolas Decker from the European Empowerment for Customised Solutions (EPECS) to focus on the patient perspective.

Decker highlighted the importance of quality assurance, reminding the audience that the Lisbon Treaty explicitly states that a high level of healthcare should be guaranteed. The Directive on crossborder healthcare is a consequence of this treaty. Decker believes it is very important that patients can cross borders. They should know where they will be treated and have indicators to decide by. These indicators need to be the same or comparable and this information must be transparent. For Decker, this is the crucial point; this is not happening in several countries. Results and figures must be published or more and more legal action will be taken.

The roundtable was a lively discussion between panel members and delegates. The key points made included the belief that indicators should show sustainability of health systems; that patients must be treated with kindness, consideration and respect and should have access to all relevant information; that politicians should lead the drive for quality and that the patient is paramount.

Conclusions

Secretary General, Willy Heuschen brought the seminar to a close summarising the main ideas of the day. He highlighted that the first results of the questionnaire surprisingly show that quality is not always a priority and is sometimes missing from hospital mission statements.

The Directive is an opportunity to increase transparency. We call on all Member States, governments and the European Commission to ensure it does not become even more complex. Heuschen continued that although it was not the purpose of the Directive, what is missing is a common language and minimal standards for quality. The EAHM should take on this responsibility. We need a common framework for quality in Europe. EAHM should work together with other professional associations, with patients, governments and the European Commission to develop this European framework for quality. In order to do this, information must come from the field- from hospitals. It should be a bottom-up process so that we can be assured it will work.

The Secretary General also highlighted that our work must continue after the implementation of the Directive. It is written in the Directive that it should be evaluated every three years and we must play a role in this too. He concluded by thanking presenters, sponsors and attendees and reminding everyone that the questionnaire is still open. The information gathered is of vital importance to the work of the EAHM.

24th EAHM Congress
24e Congrès de l'AEDH
24. Kongress EVKD
LUXEMBOURG 2013

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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SITE UNDER CONSTRUCTION

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

PEOPLE PERFORMANCE: A BENCHMARKING TOOL FOR HOSPITALS

By Bart Van Daele

Staffing in hospitals has always been a hot issue. If the budget is tight and savings have to be made, all team managers will argue that it is impossible to do the same job with less people. If there are opportunities for expansion and investment, the central board will receive a bunch of ideas to engage more employees for more activity or better quality. In fact, decisions about staffing are in most cases rarely based upon objective data.

In the best case a historical overview of activity and the number of employees is available and savings or investments are motivated by the evolution of performance seen as the ratio of number of staff divided by an indicator of activity. The aim of our project was to obtain data about people performance, not only in a historical perspective but related to the performance of other hospitals

In that perspective, 13 Flemish hospitals were asked to deliver information about staffing and activity in a standardised way so that relevant benchmarking information could be generated.

Methodology

People Performance is conceptualised as the number of employees (values) within a standardised organisational chart, divided by an activity indicator (driver).

Benchmarking of this performance can be performed for all participating hospitals or limited to hospitals with similar characteristics (segmentation).

Firstly a standardised organisation chart had to be formulated so that staff functions between different hospitals could be compared. Clear definitions were made about employees and their activities in intensive care, pharmacy, rehabilitation, accountancy and cleaning because the organisation chart and the combination of functions was far from identical in all the hospitals. Once definitions were agreed upon, it was possible to transform the hospital chart to the standard organisation chart and in that way to compare the numbers of employees involved in a specific function (Figure 2).

Secondly, one or more relevant activity drivers had to be determined for each staff function. The number of hospitalisation days or the number of admissions seemed to be relevant for internal medicine wards or paediatric wards while the net revenue of the lab gave an indication of the activity of the lab and the number of square metres was relevant to evaluate the staffing of cleaning or technical maintenance.

Figure 2. Standard organisational chart

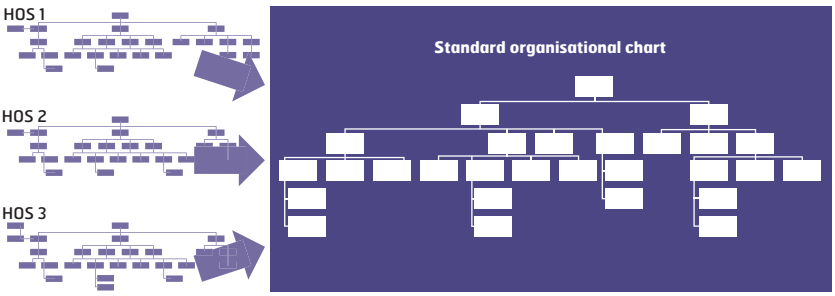
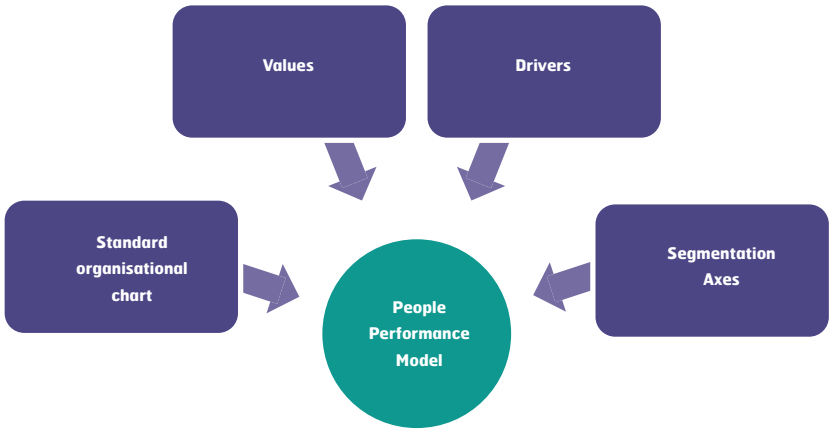


Figure 1. Elements of the people performance model

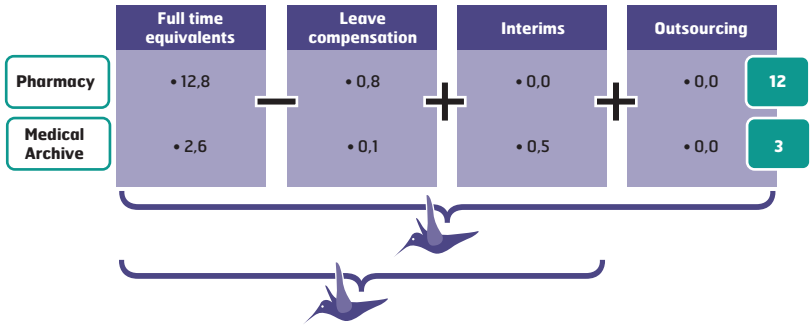


An algorithm of hospitalisation days, admissions and the number of daycare patients was used to have an overall indicator of activity which was necessary to make comparisons between large groups of employees across all the care-functions.

Thirdly, a correction was built in for annual leave privileges due to seniority, interim-staff and outsourcing of functions; for example the outsourcing of cleaning or independent physiotherapists instead of employees on payroll (Figure 3)

Lastly, central organised teams were

Figure 3. Built in correction for annual leave, interim staff and outsourcing of functions



distributed in line with their contribution to the multidisciplinary teams where they were functionally integrated. For example, a central service of social workers or psychologists distributed in line with the contribution to the teams of the geriatric, the psychiatric, or the rehabilitation ward. Some hospitals had a central service for patient transport while this was done by ward employees in other institutions. Therefore a distribution of central patient transport or mobile team had to be conceived.

All these elements were clearly defined and written down in a manual that was distributed to the 13 hospitals. During the pilot phase, the manual was continually updated based upon the feedback from the different hospitals while they were confronted with questions or difficulties during transformation.

All data was gathered in an excel format and calculations were made by defining people performance as an indicator obtained by dividing the number of staff by one or more activity indicators.

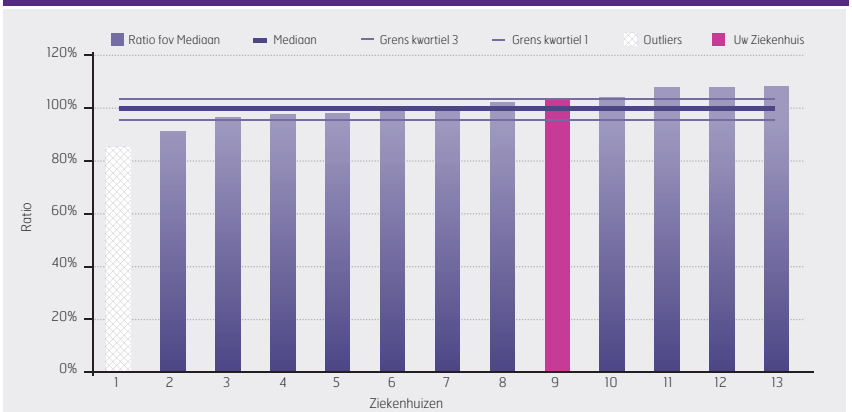
Hospitals were ranged and divided into four quartiles for every performance indicator so that they could compare themselves for every function related to one or more different activity indicators (Figure 4).

Results

In December 2011, the results were presented at a national symposium of the Belgian Organisation of Hospital Managers in Brugge.

Alongside the conclusions, based upon the benchmark for each hospital individually, statistical analysis was done to investigate the relationship between people performance and the size of the hospital and also the number of campuses. Surprisingly there was no evidence of a correlation between the size of the hospital or the number of campuses on one side and the performance of care or ancillary staff functions on the other side.

Figure 4. Benchmark for care functions



In Figure 5, the performance ratio, calculated as the number of care staff divided by the overall activity indicator, is related to the size of the hospital. The x-axis shows the individual hospitals represented by numbers, the red line gives an indication of the size of the hospital, so they are ranked in ascending mode. Pearson correlation (0.17) was low indicating that the performance was not correlated to the size of the hospital.

While intuitively we would believe that during a merger between two hospitals, a rationalisation of staffing would be made in support services such as billing and accountancy, transport, pharmacy and operating theatres, no statistically significant correlation was found except for the emergency room in hospitals with one or more campuses or in the lab, linked to net revenue.

Figure 6 illustrates a better performance (lower ratio) in hospitals with higher net revenue in laboratory (Pearson correlation -0.435).

Professionalisation and Commercialisation of the Benchmarking Tool

An agreement was made with a software company, Forcea, to put the data transaction within the data warehouse environment of IBM-Cognos. It enabled data entry online and dynamic analysis of performance indicators by combining employee functions and activity indicators.

For example one can opt to calculate the performance of the operating theatre function by dividing the number of employees by the number of operating rooms or the number of surgical patients or the number of surgical interventions.

The tool also permitted to make a segmentation of hospitals to be included in the analysis in order to compare its own service or hospital with similar services, for example to compare its own nursing employees with hospitals with a geriatric service.

In Figure 7, the performance of the emergency service is segmented in a "one" and "more" campus setting. This clearly indicates that the performance is slightly better in hospitals with one

Figure 5. Performance and size of hospital

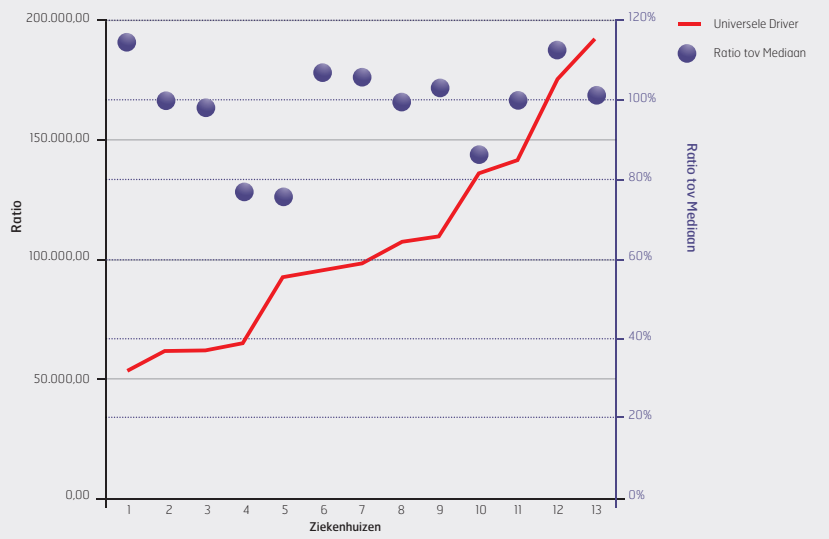


Figure 6. Performance and laboratory

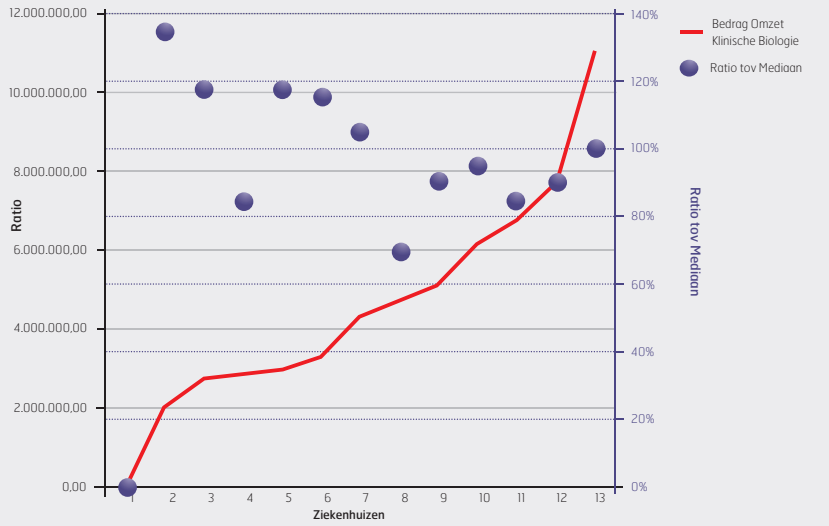
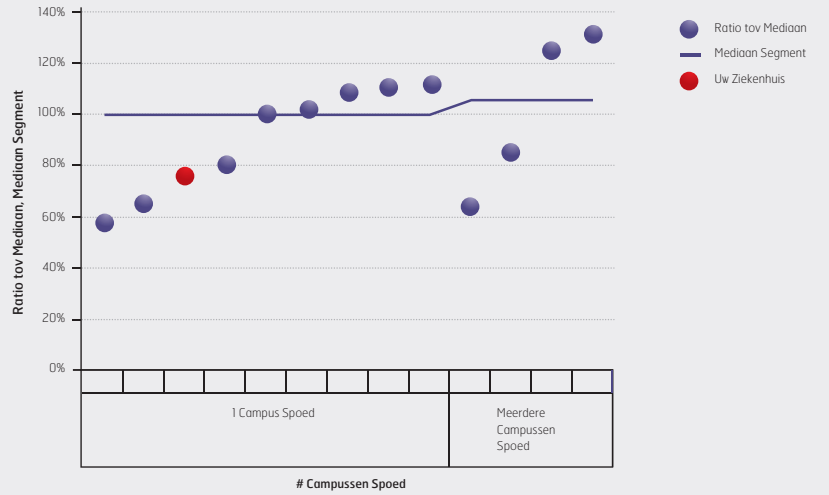


Figure 7. Emergency service performance



campus. The blue line indicates the median of performance. In hospitals with more than one campus the median of performance is slightly higher.

The tool also permits the simulation of an employee budget and the comparison of forecasted performance with the existing performance of the hospital group.

Current Status and Planning

In June 2012, 21 hospitals agreed to participate in the benchmarking tool of people performance. At this moment a DRG benchmark has also been added to the Cognos-platform, which allows hospitals to make comparisons for average length of stay or use of a pharmaceutical within a certain DRG group.

In the future it is the intention to combine people performance and DRG benchmarking so that a strong or poor performance in staffing could eventually be explained by a difference in pathology, for example in DRG severity. Therefore a poor performance - that means high numbers of employees - in intensive care between different hospitals could be explained by a different pathology profile within these services.

Acknowledgements

I would like to thank Cindy Monard, director management information in the Vesalius hospital of Tongeren, who assisted me in the pilot phase and Bert Kindt, business service director of Forcea, who coordinated the implementation of the benchmark on the Cognos Platform.

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(E)Hospital knows that hospital managers need to keep up to date with the latest innovations and news across all medical specialities to better understand the needs and challenges of each hospital department. For this reason we have been publishing specialist supplements with each issue. Two copies are included: An insert for your own use and a pull out to pass on to a relevant colleague.

This issue the focus is on the ever evolving world of information technology. The supplement introduces two important new concepts in the IT world: Real Time Location Systems (RTLS) and Cloud Computing both have significant consequences for management. Stahl explains exactly what RTLS are and how they can be used in the hospital environment for inventory management, operation measurement and analysis and also for clinical purposes. The final two articles deal with cloud computing. Fernández-Cardeñosa et al. provide us with a definition of cloud computing and analyse how cloud solutions can be applied in the EHR environment and Danois focuses on the use of the cloud to share medical image data.

REAL TIME LOCATION SYSTEMS IN THE HOSPITAL ENVIRONMENT

By James E Stahl

The idea of real-time location has been in the popular culture for a long time. The concept of knowing where someone or something is in real time has always been enticing. It has been a recurring theme in science fiction (e.g. Star Trek) and fantasy (e.g. Harry Potter) and has long been a technology on the verge of reality. It has been in the popular mind so long that this has actually created one of the barriers to its implementation; specifically, this technology in evolution has trouble meeting the expectations set up by these ideals.

What are Real-Time Location Systems (RTLS?)

Real-time location systems are systems of technologies designed to let the end-user answer the questions what, where and when– what is it you are looking for, where is it and importantly when was it last at that location (as close to real-time as possible). This is in contrast to conventional inventory systems, which tend to focus more on what and where with relatively little focus on temporal resolution.

Real-time location systems can be considered, metaphorically, as indoor "GPS". However, satellite based GPS do not work indoors. This is due to a variety reasons, predominantly, because of the buildings themselves – the stone, concrete, wiring and plumbing, shield the interior from satellite signals from the outside. Real time location systems have been developed using a variety of signal modalities: radio-frequency (including WiFi, UWB, etc.), infrared, and ultrasound. These categories breakdown further into functional modalities: active, passive or hybrid. Each form has its strengths and weaknesses.

Passive Radio-frequency identification (RFID) is perhaps the most widespread form of RTLS. This is in part due to its use-legacy and familiarity in inventory management. Passive RFID systems are used everywhere from inventory control in shops and warehouses to highway toll booths and monitoring where people are while running marathons. Passive RFID systems consist of an antenna which broadcasts a radio signal, a tag with an integrated circuit with its own antenna which receives the Radio-frequency (RF) signal which in turn reflects back a signal with tag specific information to be read by a third component, a fixed receiver. In Active RFID systems the tags themselves are powered transponders whose RF beacon is read by passive antenna/receivers. The RF based systems use a variety of algorithms to locate where the tag is that are usually based on a form of triangulation, tri- or multi-lateration. Infrared systems work similarly, though at a different end of the electromagnetic spectrum. Ultrasound devices tend to act as active systems, i.e. the US tag is powered and emits the signal. Loosely, RF signals have the advantage and disadvantage of not being easily obstructed. This allows the tag to be seen continually by the system but can lead to issues such as ambiguity as to "what side of the wall am I on". IR and US have the opposite problem. There is less ambiguity as to which side of the wall you are on but more frequent dropped signals from the system due to obstructions. Current systems are evolving towards multimodal hybrids - using each mode's strengths to compensate for the other's weakness.

Its Role to Date in Healthcare

RTLS made their first inroads into the healthcare environment as a form of more sophisticated in-

ventory management for expensive mobile assets such as infusion pumps, ECG machines, and beds. What was found was that with RTLS, nurses and other staff spent 10-30% less time searching for equipment. This in turn led to reduced local hoarding of these assets, e.g. hiding equipment in closets or above ceiling tiles, etc. If you need an infusion pump for a sick patient you don't want to hunt for it, hence local caching. Hospitals with these systems reduced procurement and inventory of these items by 20-30%. This had a significant impact on reducing wasted man-hours looking for items as well as reducing rental and inventory costs to hospitals. The systems have also allowed for improved maintenance schedules as well as reducing the amount of lost or stolen inventory. The same systems role in standard inventory improved just-in-time inventory management, reduced lost and stolen supplies, reduced the rates of non-charged consumables and reduced search time.

> It is important to remember any technology change is culture change

In this case RTLS act as substitutes for traditional inventory management systems with some added functionality. However, the temporal and spatial demands for this use are relatively low. For this use case RTLS only need a temporal resolution of approximately half to one day and a spatial resolution of a room to ward section.

Recently, RTLS has been moving into the role of operation measurement, operational analysis and intervention. Here the temporal and spatial demands are significantly higher - a spatial/temporal resolution on the order of 1-2 m^2/10 seconds. This is necessary, in order to track the movement of patients and staff who move rapidly, often come into contact briefly and often unpredictably in close and constrained spaces.

Clinical application or RTLS is still at a relatively early stage but solid work has been done already in the area of contact tracing of infectious outbreaks in hospitals to bed management in emergency rooms. In our own work at Massachusetts General Hospital we have be have begun mapping how these tightly coupled clinical systems behave, what is the effect of providing information feedback on wait time, face time and flowtime to clinicians, linking process measures derived from RTLS such as face-time to clinical and laboratory databases to explore the effect of time on resource utilisation and outcome and using RTLS to help measure hand hygiene compliance.

Implementing RTLS

Implementing these systems for clinical and managerial purposes faces several challenges. On the technical side, these systems often are not as good as our cultural expectations (see above), they may demand and often have limitations with regard to temporal/spatial granularity, latency and signal to noise. The information generated can be complex to analyse, interpret and present. These systems have their own inventory concerns surrounding tag supply, cost and loss. In addition, there are clinical concerns, such as, if the tags are reusable how do we sterilise them? Cultural issues are often related to the specific clinical unit cultures in which you wish to implement the technology, form factors – is a tag for the patient the same as for a clinician, and privacy. Big brother is often raised even though the same and much more information is broadcast regularly by peoples' mobile phones. It is important to remember any technology change is culture change.

> If guidelines are about delivering the right therapy or test to the right person at the right time, RTLS is the logical facilitating technology

The cost of installation depends on a variety of factors ranging from the extent and quality of existing IT infrastructure to the density of the floor plan and the age and construction of the buildings to the cost of tags, receivers and software. As a frame of reference, expect installation on a clinical unit to cost on the same order of magnitude as upgrading all of its computers.

The business model for RTLS in healthcare is essentially one of cost-savings, improved delivery of care and reduced errors rather than revenue generation. The return on investment for RTLS for mobile inventory management seems to be clear in this regard. The argument for RTLS in operations improvement is similar though the evidence is only now starting to come in, efficiencies gained and errors avoided should readily provide a positive ROI.

RTLS, Hospitals and the Future

In addition to the above-mentioned applications, hospitals have a great deal to gain from RTLS systems. One of the challenges facing general hospitals is how to deliver care efficiently. Unlike manufacturing facilities where one can physically line up all the resources needed to assemble a product. General hospitals are complex physical spaces where the needed resources can be located almost anywhere. RTLS in principle provides the mechanism to set up virtual pathways to deliver care. If guidelines are about delivering the right therapy or test to the right person at the right time, RTLS is the logical the facilitating technology. If privacy rules such as HIPAA, require only those providers in the patients clinical path have access to the patient's information, RTLS tags can provide the key. Finally, RTLS in one form or another will likely become the backbone of future pervasive sensing environments in hospitals linking EHRs, POC testing, and other hospital resources to the patient and provider.

Some Reasons to Care About RTLS

- Understanding complex system behaviour
- Safety
- Error Reduction
- Process redesign
- System redesign
- Privacy
- Access to care
- Loss prevention
- Resource allocation and logistics
- Transactional care vs. time-based care
- Vicinity/association
- Getting the right resource to the right place at the right time
- Measurement and behavior
- Wayfinding – navigation in complex spaces

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ZEBRA TECHNOLOGIES

APPLYING **CLOUD SOLUTIONS IN THE EHR ENVIRONMENT**

By Gonzalo Fernández-Cardeñosa, Isabel de la Torre-Díez

Over the last few years everybody involved in the IT world has been talking about the famous cloud. Maybe you have heard about it, but what are they actually referring to?

Cloud computing essentially refers to a change of mentality in the way of developing the storage systems of either a company or a single user. This new paradigm allows the customers to hire IT services as if they were renting them. So, now a company that needs a storage platform doesn't need to deploy its own platform, they just have to contact a cloud services provider and get the whole system as a service. This whole process must be absolutely transparent for the end-user as if he had its own IT infrastructure.

> Improving the availability of clinical information will help medical personnel improve their efficiency.

What does this mean? Through cloud solutions customer companies are not responsible for the management and maintenance of the IT infrastructures. Moreover, with this kind of model customers just rent the services for a third-company provider and get the final service. More advantages like the flexibility, scalability, availability and on demand services will be explained later.

Focusing on the e-health environment, the cloud business model offers a lot of advantages like those quoted above. However, it is important to remember that there are several risks to overcome in the data migration process. Security and confidentiality of patient data must always be preserved.

Concepts of the Cloud

In this section the models of deployment and types of cloud computing are very briefly described so explain how the "cloud-world" works.

Models of Deployment

Depending on the services or infrastructures that are rented by the cloud customer there are mainly three models of cloud computing:

1. SaaS: Software as a Service

This model of cloud computing offers the whole service to the client. So the cloud provider is responsible for the whole infrastructure and the application itself. The end user is able to access the data or resources without having to install any kind of software. Normally applications are accessed through a traditional web browser or an application provided by the cloud company. This model is not really useful for EHR management systems, because it doesn't allow the personalisation of the application, which is essential. Even though there are several options of cloud providers that offer complete solutions for managing EHRs in which the software itself is included, on hiring SaaS solutions hospitals will have to overcome the problem of compatibility with the handling system.

2. PaaS: Platform as a Service

With this type of model the application is the responsibility of the health centre. The cloud provider offers the platform and databases under the application. This means that the EHRs management application can be personalised by the hospital IT personnel, increasing in that way the compatibility with the previous systems and adjusting the software to the health centre needs.

3. IaaS: Infrastructure as a Service

With IaaS the cloud provider is only responsible for the hardware infrastructure. This infrastructure includes network and storage devices responsible for providing the bandwidth and capacity to fulfill the client requirements. What does this mean? With this type of model the customer has total ability to personalise its own software application, including the database.

Figure 1. Graphic explanation of cloud-deployment models.

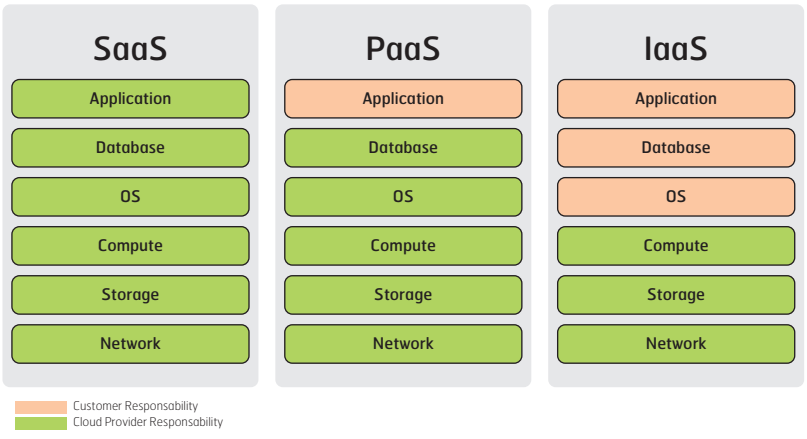
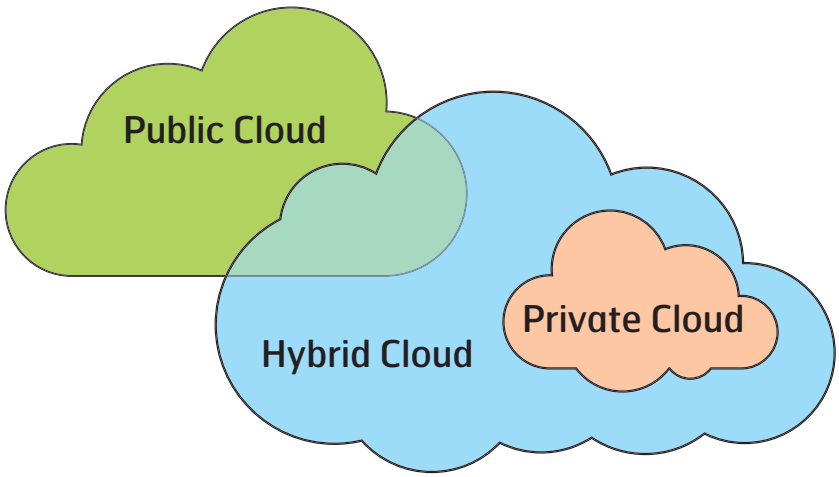


Figure 2. Types of cloud computing depending on the ownership of the cloud infrastructure.



The three cloud deployment models are graphically explained in Figure 1.

Types of Clouds

Depending on several factors like security and performance, health organisations can choose to migrate their data to different kinds of cloud (Figure 2).

1. Public Cloud

In the public cloud, the infrastructure, storage and computing resources are shared by several clients. Thanks to the virtualisation concept that will be explained briefly later, the cloud provider is able to provide the different hired resources of each client through the same platform. Security and privacy mechanisms are integrated in this kind of cloud but the customer must be aware that sensitive data will be more exposed to security attacks in this kind of cloud.

2. Private Cloud

Health centres and hospitals handle patients' sensitive information. This can be problematic when it's time to move their data to the cloud. To solve privacy and security issues companies choose to store their resources in its own cloud. That is why it is called a private cloud. There are two types of private clouds:

- On Premises Private Cloud: The cloud infrastructure belongs to the enterprise that uses;
- Externally Hosted Private Cloud: The cloud provider deploys an infrastructure used exclusively by the customer; the customer rents the whole cloud.

Deploying a private cloud is the best option in terms of privacy and security but, obviously, the cost of this type of cloud computing is higher.

3. Hybrid Cloud

The hybrid model represents a mixture of both models above. Sensitive data is stored in the private part of the infrastructure whereas the rest of the information in stored in the public infrastructure. By deploying a hybrid cloud the company ensures the security and privacy for their sensitive data with a lower cost than if a complete private cloud were deployed.

Why Cloud on a Hospital Environment? Virtualising the E-Health Environment

Before explaining the benefits and advantages of deploying a cloud model over a health cen-

Table 1. Cloud advantages for a Health Centre IT environment.

Advantages	Explanation
Avoidance of deploying IT infrastructure	Using cloud IT infrastructure is now the responsibility of a third-party. Health centres just need to have an Internet connection to access all of their resources.
Flexibility and scalability	Thanks to the flexibility and scalability that the cloud model offers, hospitals can increase or reduce the hired services depending on their capacity, compute or network needs.
High availability	Cloud providers offer high availability rates. Data could be accessible from every device with an internet connection.
Improved efficiency	Improving the availability of the EHRs we facilitate the access of the medical personnel to the patients' data. Giving the personnel better tools to perform his job we get more efficiency and QoS.
Economic savings	By deploying cloud-based solutions hospitals can avoid making an initial investment on its own IT infrastructure. With cloud model hospitals pay for the resources that they are consuming.

Table 2. Drawbacks of applying cloud solutions in EHRs environment

Drawback	Explanation
Confidence in the cloud provider	The health organisation must trust the third-party which is going to "handle" the patient data. The cloud provider will be responsible for ensuring the privacy and security of the information.
Dependence of internet connection	The health centre will need an Internet connection to get access to their resources. So the bandwidth must be enough to provide access to the cloud. If the connection fails the medical personnel won't get access to the information, so the dependence with the connection is total.
Lack of personalisation of cloud services	Depending on the deployment model that the hospital is going to hire, the personalisation could not be enough to fulfill the EHR management platform needs. To overcome this handicap the hospital and the provider must ensure the correct working of the EHR management software in the cloud hiring the right option. In order to connect different health centres with different cloud solutions this standardisation is essential.

Table 3. Suggestions to take into account by the Health Organisation

Suggestion	Explanation
Study previous similar experiences	Before moving the patient data to the cloud it is a good idea to investigate similar migrations in other hospitals. Studying these experiences will help the health organisation choose the right cloud services provider.
Knowledge of the security mechanisms installed in the cloud.	Health centres must know the different security mechanisms installed in the cloud provider platform to guarantee that patient data will be safe against external attack or unauthorised access.
Deployment of legal framework	A legal framework must rule the policies of the cloud. While the provider owns the right to his infrastructure and applications, the hospital owns the right to his data.
Patient information campaign	Patients must be informed that their data is going to be migrated to the cloud. Information campaigns must be performed by the organisation to update their patients. The fact that medical records are in the possession of a third-company, outside the healthcare organisation may cause reluctance from the patient for the cloud to be used.

tre EHR management infrastructure it is interesting to explain the concept of virtualisation, which is the key to cloud computing.

Virtualisation: Key of Cloud Computing

Virtualisation can be defined as the ability of abstracting physical resources and making them appear as logical resources. What does this mean? Through virtualized environments it is not necessary to have the physical network or storage infrastructure. With cloud environments hospitals don't need to deploy their own IT infrastructure: "It's all on the Cloud".

Benefits

Table 1 explains the main advantages of a cloud environment for EHR management system.

Challenges to Overcome

Security and privacy of patient health information stored in the EHRs must be essential when migrating the data to the cloud. Hospitals must be aware that with the cloud model this sensitive data will be stored on the third-party servers.

Conclusions and Outlook for the Future

In the past few years digital information has experienced an amazing growth. Cloud-based solutions arise as a way of handling this huge amount of information. The e-heath environment can take advantage of this new technology; improving the availability of clinical information will help medical personnel improve their efficiency. Through cloud-based solutions the patients can also play an active part in this process, consulting their own EHR from any device with an Internet connection. Privacy and security issues must be the priority for both parties: health organisations and cloud service providers in order to guarantee the confidentiality of patient data.

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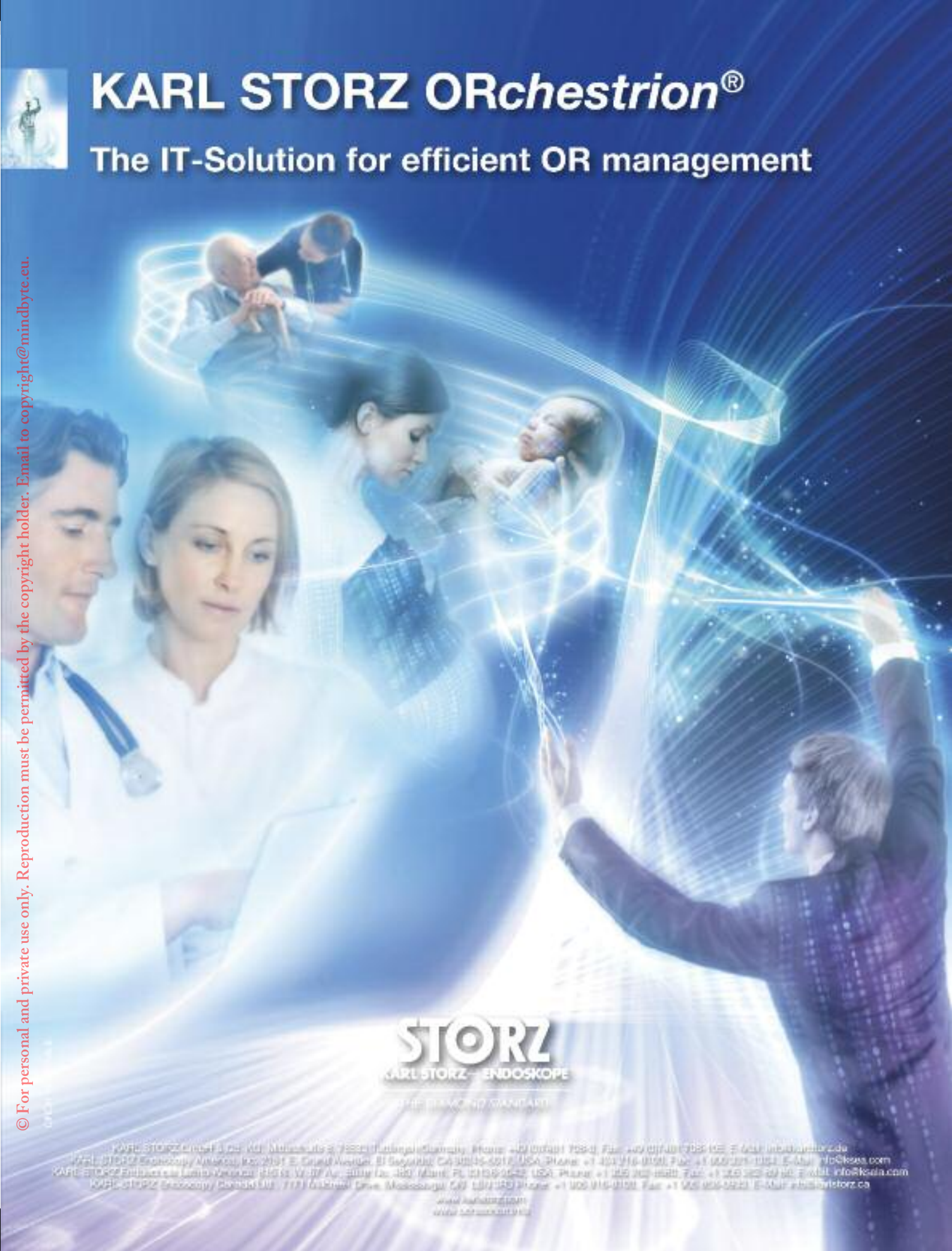


PUTTING PATIENTS IN THE DRIVING SEAT: **A DIGITAL FUTURE FOR HEALTHCARE**

The European Commission has unveiled an Action Plan to address barriers to the full use of digital solutions in Europe's healthcare systems. The goal is to improve healthcare for the benefit of patients, give patients more control of their care and bring down costs. While patients and health professionals are enthusiastically using telehealth solutions and millions of Europeans have downloaded smartphone apps to keep track of their health and wellbeing, digital healthcare has yet to reap its great potential to improve healthcare and generate efficiency savings.

The Action Plan attempts to increase the pace of change and improvement in healthcare by:

- Clarifying areas of legal uncertainty;
- Improving interoperability between systems;
- Increasing awareness and skills among patients and healthcare professionals;
- Putting patients at the centre with initiatives related to personal health management and supporting research into personalised medicine; and
- Ensuring free legal advice for start-up e-health businesses.

The Commission also commits to issue a mHealth (Mobile Health) Green Paper by 2014 addressing quality and transparency issues.

An accompanying Staff Working Paper gives a legal overview of how current EU legislation applies to cross border telemedicine (services such as teleradiology, teleconsultation or telemonitoring). Currently, telemedicine falls within the scope of several legal instruments. The paper clarifies the issues a healthcare practitioner faces in delivering cross-border telemedicine, for example:

- Do they need to be licensed/registered in the Member State of the patient?
- How should health data be processed? Will a given service be reimbursable?
- What is the liability regime applicable in case of legal action?

Neelie Kroes, Commission Vice President for the Digital Agenda, said "Europe's healthcare systems aren't yet broken, but the cracks are beginning to show. It's time to give this 20th Century model a health check. The new European eHealth Action Plan sets out how we can bring digital benefits to healthcare, and lift the barriers to smarter, safer, patient-centred health services."

Tonio Borg, Commissioner for Health and Consumer Policy, said: "eHealth solutions can deliver high quality, patient-centric healthcare to our citizens. eHealth brings healthcare closer to people and improves health systems' efficiency. Today's Action Plan will help turn the eHealth potential into better care for our citizens. The eHealth Network under the Cross-Border Healthcare Directive channels our joint commitment to find interoperable solutions at EU level."

Members of the new eHealth Network, established by the Cross-border Healthcare Directive will help implement the Action Plan and provide a direct link to the national healthcare authorities and government departments.

For more information, please visit: **http://ec.europa.eu/digital-agenda/en/european-ehealth-policy**

SAVE THE DATE: E-HEALTH WEEK 2013

13-15 May 2013, Dublin, Ireland

eHealth Week 2013 brings together two main events: the High Level eHealth Conference co-organised by the European Commission and the Irish Presidency of the Council of the European Union, and World of Health IT Conference and Exhibition (WoHIT) organised by HIMSS Europe. The event not only brings industry partners and providers from across Europe, but also important government and regional decision makers.

"Ireland is engaging in a major health reform process over the next number of years and e-health and ICT will play a critical role. This will be a great opportunity to learn and share experiences from those leading in the field," mentioned Kevin Conlon, Head of ICT, Irish Department of Health.

Exhibitors and attendees will have the opportunity to connect and discuss their health information technology solutions in an environment that provides access to buyers while remaining cost-effective. The Industry Programme Sessions will provide key learning and best case examples from across Europe, of how IT has been used to deliver better Healthcare. These 45-minute sessions will examine where the challenges lie for our future healthcare systems and how to overcome those challenges.

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

HOW THE CLOUD WILL **REVOLUTIONISE SHARING MEDICAL IMAGE DATA**

Improving Cost Effectiveness and Patient Outcomes

By Derek Danois

As the global healthcare landscape undergoes monumental change, healthcare IT is becoming a primary enabler of collaboration and cost management. Medical imaging, particularly the ability to move imaged data to the cloud, will create an opportunity for integration of existing technology into a new paradigm. Technological advances, such as the move to digital rather than analogue, are changing medical imaging as an infrastructure, with the potential to create cost savings within the organisation. The challenge is how providers can maximise their imaging systems in order to deliver additional services others cannot provide.

Providers Face Long-Term Issues With Imaging Technology

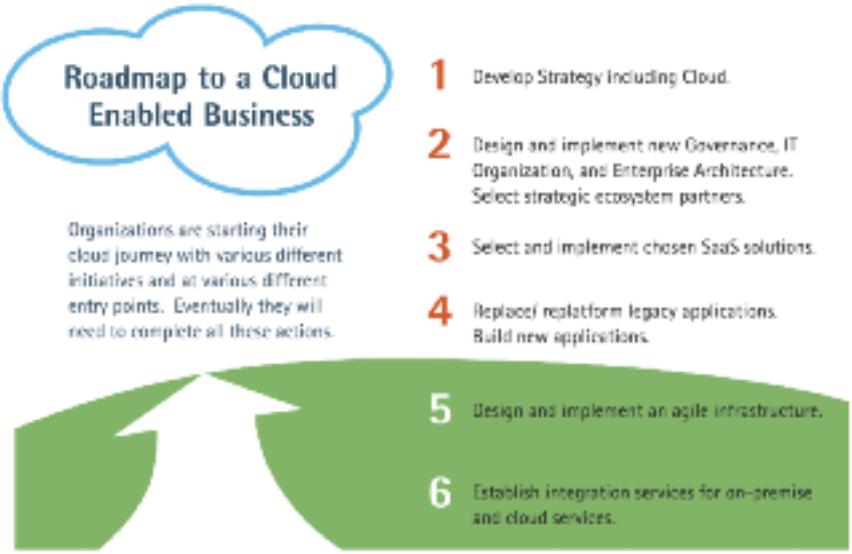
The use of imaging technology in medicine has exploded since the 1970s, with the introduction and spread of sophisticated CT and MRI systems. As the technologies have moved to digital formats, they create vast amounts of digital image data. While this has revolutionised diagnostics and treatment, it has brought its own problems—the cost of the latest equipment, the volume of image data to be stored and the proprietary nature of the imaging systems used. Throughout 2010, five billion imaging studies were conducted worldwide and a study can include anything from three to 30 images.

Vendors who create the software and hardware used for imaging equipment do so based on knowing the diagnostic problems that need to be solved. But their use of proprietary tags on the imaging data also makes it difficult and very expensive for practitioners to move to a different vendor's products, even if the capabilities to be gained will provide substantial benefits to patients and doctors alike. The cost of data conversion can be prohibitive all by itself, and practitioners ought to avoid maintaining two or more databases with incompatible formats that would make it impossible to maintain one set of records per patient. For example, administrators at a major university hospital in a European country recently solicited proposals for migrating their information to a centrally managed cloud-service. They had encountered the dilemma of whether to pay their imaging technology vendor a sizable fee to cleanse the data of proprietary tags, so the data could migrate to the new system, or to stay with that vendor's platform even though it would limit their ability to use the data in the future.

In addition, many hospitals today are faced with the growing expense of being required to maintain records for a longer time than they planned. When participating in care studies, for instance, they were paid once for that participation, but now need to main-

> The files don't get smaller, they only get bigger, leaving practitioners with terabytes, if not petabytes, of data they have to maintain.

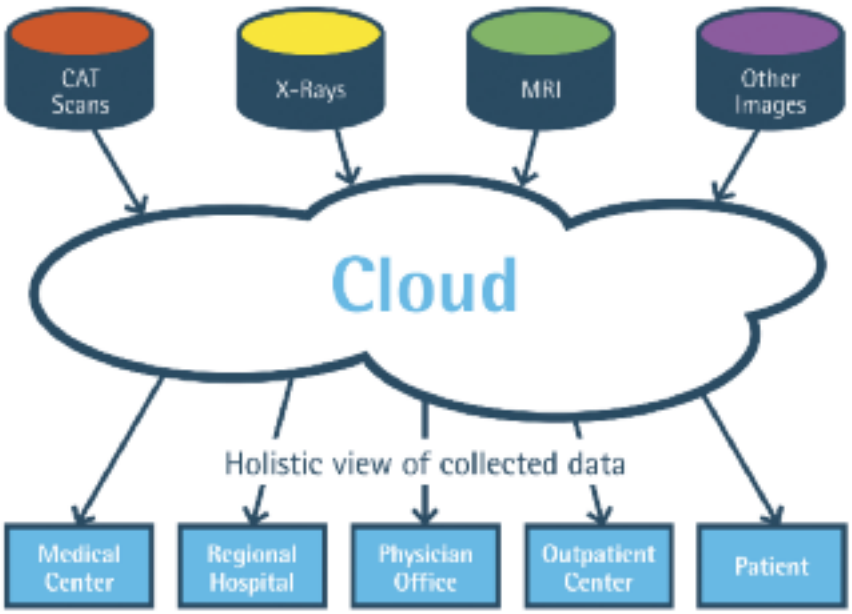
Figure 1. Roadmap to a cloud enabled business



tain the data for 20 years. The problem is even larger for studies using images. The files don't get smaller, they only get bigger, leaving practitioners with terabytes, if not petabytes, of data they have to maintain.

available to individual hospitals or practices in the current siloed environment. Cloud solutions offer economic survival through a "buy what you use" structure that lowers the cost of accessing and archiving data-intensive images. Separating the data from proprietary imaging systems also allows importing data from, and exporting to, other sources, whether or not the data was generated by the same imaging technology. Practitioners can consider new vendors in the future without being trapped in specific data architecture.

Figure 2. Data on the cloud



Cloud Solutions Provide Answers

Among the many pressures facing the healthcare industry, reducing costs without impacting patient care remains at the top. A major emphasis in some global healthcare reform efforts is to increase the availability of medical data to several constituencies, which requires standardised access and the ability to exchange health data through electronic medical records. Cloud solutions can provide that shared access.

Economies of scale in sharing data are not

Moving medical imaging to the cloud solves the question of long-term viability for both information and budgets, since the data will remain in place and accessible regardless of the imaging vendor. In fact, by separating the data from the specific applications and platforms, providers will be able to consider new technologies without being concerned that they are backing the wrong horse. This helps create a new, cost-effective clinical infrastructure — an important consideration at a time when costs are becoming one measure included in criteria of the quality of care delivered to patients. Finally, by using data-centric rather than platform-oriented solutions, practitioners can use superior cost performance and streamlined infrastructure to capture a larger share of the healthcare market.

> Those who move first to capitalise on this potential will find themselves rewarded with greater operating efficiency and larger market share.

Bring on the Revolution

Cloud computing will revolutionise the sharing of patient medical data and improve both health outcomes and providers' bottom lines. Those who move first to capitalise on this potential will find themselves rewarded with greater operating efficiency and larger market share. Those who don't will find themselves unable to serve their patients effectively.

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Key benefits of the cloud for imaging

- Cloud solutions provide shared access to medical data.
- Cloud solutions offer economic survival through a "buy what you use" structure that lowers the cost of accessing and archiving data-intensive images.
- Practitioners can consider new vendors in the future without being trapped in specific data architecture.
- By using data-centric rather than platform-oriented solutions, practitioners can use superior cost performance and streamlined infrastructure to capture a larger share of the healthcare market.

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THE DUTCH HEALTHCARE SYSTEM: **NOBLESSE OBLIGE**

The Dutch healthcare model as introduced in 2006 is very successful and healthcare in the Netherlands is regarded by many as the best in Europe (Euro Health Consumer Index 2008, 2009). Indeed some countries, such as Ireland, are looking to the Dutch model for inspiration in the reform of their own healthcare systems. But is this model really as good as it seems? *(E)Hospital* spoke to Guy Peeters from the Maastricht University Medical Centre to find out more; he highlighted the positive, the negative and his outlook for the future.

Firstly, let's take a closer look at the system itself. The model is based around the following principles:

Insurance

In the Netherlands there is obligatory standard health insurance for all citizens and compensation for people with low incomes. Insurers must accept everyone and there is a system of structural risk compensation. There is a healthy level of competition within the market as citizens can change their insurance company every year so insurance companies compete for clients. The system is of private character, with public limiting conditions and it is the government who is responsible for accessibility, affordability and quality of healthcare.

Care Providers

Dutch care providers work in a performance-oriented manner. Services can be customised and there is ample opportunity to distinguish themselves. They can organise and 'sell' their services as diagnosis-treatment-combinations in negotiation with the insurance companies.

Market

Market mechanisms have been confined to a relatively small percentage of treatments. From 2012, this "free segment" (with prices and volumes freely negotiable between providers and insurers) is raised to 70% of treatments. However, there is a regulated segment of specific, high level care which remains under a system of maximum tariffs, and a certain budget for top referral, academic care. At the same time, stakeholders of the healthcare system agreed to keep the growth in expenditures on hospital care restricted and not let it rise more than 2,5% between 2012 and 2015. This was a political necessity to keep healthcare costs in control, but leaves little room for market-oriented activities.

> "The model introduces market forces into the healthcare system in a controlled manner"

Insured parties are obliged to insure themselves (basic healthcare insurance) and have various choices in terms of which insurance company they choose and the level of premium. Insurance companies must fulfil legal requirements, but are allowed to make profit. They negotiate with care providers on price, content and organisation of the care; have a legal obligation to provide for prompt and quality care and can choose their providers and set requirements. Companies are obliged to accept everyone for the 'basic package'. Solidarity is guaranteed as no risk selection is allowed.

The Effects

But what are the effects of this highly rated model of healthcare? The model introduces market forces into the healthcare system, in a controlled manner: between patients and healthcare providers (patient care market), insurers and healthcare providers (reimbursement market), and patients and healthcare insurers (insurance market).

Hospitals operate in an arena influenced by a broad range of stakeholders, among which health insurance companies, general practitioners and other referring parties, other healthcare providers, patients and patient organisations, but also political demands.

Peeters believes the effects of the forces at work in the Dutch healthcare system are as follows:

- Focus on quality, e.g. in negotiations between hospitals and insurers;
- Growing number of specialisms with binding quality requirements (e.g. minimum number of treatments, minimum number of specialists);
- Insurers try to direct patients to "preferred providers" with whom they have agreements; and
- Growing attention for information and transparency, e.g. concerning quality indicators and benchmarks (e.g. "top 100 hospital" lists in Dutch newspapers and magazines).

Too Good to be True?

So far so good, but is it all too good to be true? One important issue is how to keep this high standard of healthcare. Sustainability in healthcare and healthcare financing is of rising concern. As in many European countries, the Netherlands is facing developments that challenge the healthcare system:

- A growing demand of healthcare because of a rapidly aging society and the associated increase in chronic diseases and multi-morbidity.

This development also requires innovation in the care for older patients and patients with chronic diseases.
- More complex healthcare demands, because of the growing possibilities for personalised healthcare.
- Shortage of professionals in an also aging labour market.

system – is the statutory power of patients to block attempts to stop with the provision of certain treatments in a certain location.
- An element of market mechanism in the system, designed to reduce waiting lists and involving freedom of pricing and volume, is opposed to politically induced control of the macro-budget for healthcare.

> A long-term vision, in particular concerning the sustainability of the system which is shared by all stakeholders, has yet to be developed.

These developments challenge healthcare organisations to provide more: more complex, safer and more integrated services of the highest quality. This must be achieved with less personnel and material resources, and under the pressure of growing (international) competition.

For academic healthcare, another national trend is of importance: in order to ensure quality and efficiency, concentration and specialisation takes place. This applies to both healthcare services and research activities. Academic hospitals have to focus and differentiate, with the expansion of certain treatments and the downscaling of others. This development requires a coordination of services and suitable facilities to accommodate for the services in the focus areas.

Contradictions in the System

The healthcare system is in constant development and at the moment, there are several movements that are contradictory to each other. Peeters explained that the system has to deal with conflicting objectives, such as:

- Concentration and differentiation of healthcare activities for reasons of quality and costs on the one hand, the restriction of concentration by antitrust authorities on the other hand.
- Also opposed to concentration – which is necessary for the sustainability of the

A long-term vision, in particular concerning the sustainability of the system, which is shared by all stakeholders has yet to be developed. At the moment, good initiatives are taken. An outstanding example is the "Agenda for healthcare", a strategic vision developed by the major stakeholders of the Dutch healthcare system, including the associations of healthcare insurance companies, medical specialists, general practitioners, general hospitals, university medical centres and patients. Key items on the agenda include:

- Emphasis on health and behaviour, and quality of life;
- Self management by the patient/client;
- Innovations in healthcare;
- Antitrust rules which serve rather than prohibit cooperation; and
- New ways of financing healthcare.

Organisation and New Role of the Healthcare Institution

Another issue to be resolved is the fact that healthcare in the Netherlands used to be (and still is) organised according to organ systems and the corresponding "classic" medical specialisms. This can make care incoherent, e.g. considering multi- and co-morbidity, and impair a systemic approach. This is particularly relevant with the rising importance of prevention and prediction. With this approach, the organisation according to organ systems is no longer valid. A systemic approach, focused on prevention and prediction, requires collaboration, between specialism within the hospitals and between all stakeholders within the healthcare chain in general.

This requires a new vision on the role of the own organisation within the healthcare system: the basis for activities must not be "the healthcare system serves the healthcare institutions", but "the healthcare institutions serve the healthcare system". Each institution has the obligation to keep healthcare affordable and sustainable.

Peeters believes that a major trend in the future will be the further narrowing of focus areas of healthcare institutions, with more specialised clinics despite the obstacles presented by the current system as described above. He cites India as an interesting example, where highly specialised clinics are delivering healthcare of high quality with great efficiency.

Conclusion

With both positive and negative aspects, whether the Dutch healthcare system is a model that could be successfully adopted in other European countries remains to be seen. Peeters is keen to stress that the system is currently functioning very well but that there is still work to be done. He believes there is now an obligation to adapt it in the view of future challenges and make it sustainable, suggesting that, "maybe this process can also serve as an inspiration for European institutions."

> Each institution has the obligation to keep healthcare affordable and sustainable.

Interviewee:
Guy Peeters
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THE NURSES' WORK ENVIRONMENT: KEY TO NURSE AND PATIENT SATISFACTION

By Walter Sermeus, Luk Bruyneel

In hospitals where nurses report better working conditions, nurses are less likely to leave the hospital and patients are more satisfied with their hospital stay and rate their hospitals more highly. These findings result from the Registered Nurse Forecasting (RN4CAST) study. This nurse workforce study was one of the largest studies of its kind and included a consortium of investigators from 15 countries led by the Katholieke Universiteit Leuven in Belgium and the University of Pennsylvania in the U.S. Also nurse staffing, measured as patient-to-nurse ratio is related to patient satisfaction with care. These findings were recently published in the prestigious British Medical Journal.

RN4CAST: A European Research Platform

The RN4CAST research consortium resulted from many years of effort by the research team of Professor Linda Aiken at the University of Pennsylvania to demonstrate the relationship between the organisation of nursing care and wellbeing of nurses and patients. Professor Aiken previously coordinated an international consortium (Canada, England, Germany, New Zealand and the U.S.). On the basis of data from approximately 40,000 nurses it was shown that issues in the organisation of nursing care are a threat to providing safe patient care.

Further studies showed that nurse staffing, nurse work environment, and nurse education level relate to patient mortality. This evidence for some time remained limited to the U.S. and Canada. It was only half a decade later that European researchers came to similar findings. Both in England and in Belgium a relationship was found between nurse staffing and patient mortality.

With the RN4CAST study, a research consortium of 12 European countries (Belgium, England, Finland, Germany, Greece, Ireland, Netherlands, Norway, Poland, Spain, Sweden, and Switzerland) was founded to expand on this important research. The U.S. have the necessary expertise in the development and application of measurement instruments for use by nurses and patients, and are an important addition to this European consortium. The research team from the University of Leuven, led by Professor Walter Sermeus, was responsible for the coordination and daily management of the RN4CAST study. Funding was obtained under the Seventh Framework Programme of the European Commission for the period 2009-2011. Additional funding came from the National Institute of Nursing Research of the National Institutes of Health in the U.S.

Developing A Unique Nurse Workforce Database

More than 60,000 nurses from over 1,000 general hospitals in 15 countries participated to the RN4CAST study. That includes 33,541 nurses from 486 hospitals in 12 European countries and 27,509 nurses working in 617 U.S. hospitals. Data are also available from 9,698 nurses in 181 Chinese hospitals and 4,657 nurses in 62 South-African hospitals. Patients who were hospitalised in these hospitals rated the quality of hospital care: 11,318 patients in 210 European hospitals, 6,494 patients in 181 hospitals, and tens of thousands of patients in 430 U.S. hospitals. In all countries, identical instruments were used to allow comparability. Therefore, a rigorous research protocol was used to guide a reliable and valid translation and cultural adaptation of the questionnaires. In each country, at least 30 general hospitals and at least two nursing units (general internal, surgery) per hospital were randomly selected. Nurses were asked to assess their work environment using the Practice Environment Scale of the Nursing Work Index. This included questions about working relationships with physicians, nursing leadership, quality, and participation in hospital affairs. Nurses also provided information on the number of patients they cared for during their last shift and rated their wellbeing. On the same wards where nurses were interviewed, patients rated the care provided by doctors and nurses. They also indicated to what extent they would recommend the hospital to friends or family, and gave a total score to hospital care. In the U.S., the results of this questionnaire, the Hospital Consumer Assessment of Health Personnel and Systems (HCAHPS), are publicly reported.

Nurse Dissatisfaction: Frequent, But Not Everywhere

Both in the U.S. and Europe many nurses reported high burnout and job dissatisfaction. In Europe, this was 30% of all nurses. The Netherlands (10%) and Switzerland (15%) were positive outliers in comparison with other European countries. In Greece however, nearly four in five nurses reported feelings of burnout. Figures on job dissatisfaction are similar. Not surprising in this regard is that a large number of European nurses reported the intention to leave their job in the hospital because of job dissatisfaction. In the U.S., this was limited to 14% of the nurses, which was better than in any European country.

Concerns About the Quality of Care

Nurses are concerned with the quality of patient care in their hospital. For example, one in three Dutch nurses indicated that the quality of care on their nursing unit is insufficient. In Ireland, this is only one in ten nurses. Moreover, many nurses do not feel confident that discharged patients are able to manage their care. This ranged from 28% in Sweden to 75% in Poland. In almost all European countries, about four in five nurses do not feel confident that hospital management will act to resolve problems in patient care that are reported. In the U.S. this is limited to less than three in five nurses.

Opinions Of Nurses And Patients Are Closely Connected

Patients in Switzerland, Ireland and Finland seemed most satisfied (overall score and recommendation of the hospital) while Greek and Spanish patients are the least. In almost all

countries at least three in four patients felt they were treated with respect by nurses. The number of patients who felt that nurses really listened to what they had to say was however consistently lower. There was a high degree of consensus among patients and nurses when they were asked if they would recommend the hospital to friends and family.

Explanatory Factors Of Nurse And Patient Wellbeing: Work Environment And Staffing

As in the case of patient satisfaction, wellbeing and quality of nursing care, the results on nurses' perceptions of their work environment and nurse-to-patient ratios varied greatly from country to country. In Norway, nurses on average took care of 5.4 patients during their last shift. This number doubled for Belgium (10.7). In Spain (12.6) and Germany (13.0) the numbers were even higher. With 5.3 patients per nurse, the U.S. scored lowest.

Figure 1 shows the score that nurses gave to their work environment. This score results from an aggregated measure of the four factors in the work environment of nurses. A higher score indicates a better working environment (maximum = 4, minimum = 1). As can be seen from Figure 1, not only is the variation between countries very large, the variation between hospitals in the same country is much larger. This high degree of within-country variation applies not only to the results of the work environment, but for all the above results. The dashed line represents a comparative average score of the U.S. magnet hospitals. The magnet accreditation is mainly about respect from doctors and nurse directors in giving nurses responsibilities, for example in the allocation of patients and participation in hospital affairs. Based on the results of the RN4CAST study, few European hospitals seem to provide such positive work environment for their nurses.

Regression models showed that a better work environment and increased nurse staffing exhibit a substantial positive impact on all dimensions of well-being among nurses, all scores of patient satisfaction, and nurse-perceived quality of care. Preliminary findings show that there is a similar relationship with hospital patient mortality.

Conclusions

The findings show that all countries in this study are facing challenges relating to the quality of care and nursing staff retention.

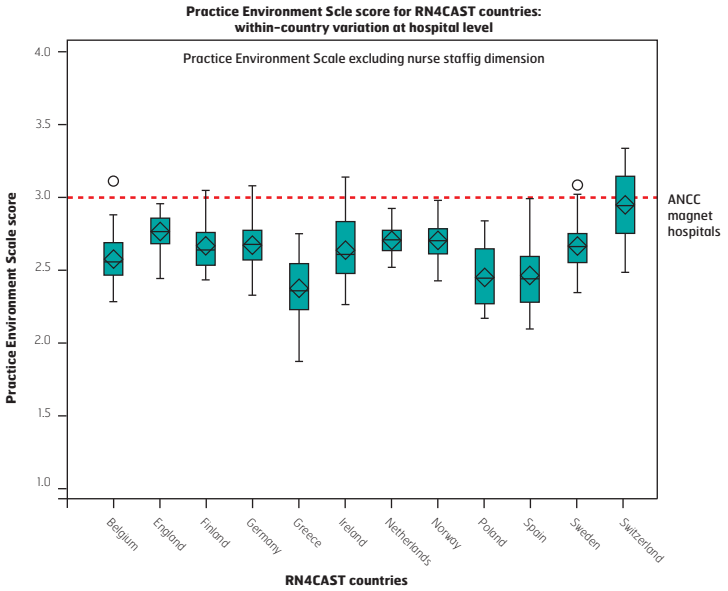

Figure 1. Boxplot of Nurses' work environment in the RN4CAST study: comparison to the average nurses' work environment score in American Magnet hospitals (data aggregated at the hospital level).

This appears related to the organisation of nursing care. The U.S. offers an interesting perspective for the retention of nurses and the attractiveness of the profession. In the U.S. a much lower percentage of nurses reported the intention to leave their current job. This may be a result of increased efforts to improve nurse staffing in hospitals. Many U.S. states have enacted nurse staffing legislation. In addition, 400 hospitals (7 percent) in the U.S. today have achieved "magnet-status". This is a recognition for excellence in nursing care. That is, they have demonstrated the ability to attract and retain nurses because of good work environments. Because of such success factors, many nurses who previously left the profession have reentered. Investing in nurses' work environment is thus an efficient strategy to achieve maximum benefits for the organisation.

Professor Aiken and colleagues recently showed that a good working environment is a premise for achieving good care results; investments in staffing prove fruitless in hospitals with poor environments. A qualitative follow-up study in Belgian hospitals participating in the RN4CAST study showed that the role of the nurse managers in this is very important. In hospitals where the nursing department was characterised by a participative management style, a flat organisational structure, and structural training programmes and career opportunities for nurses, work environments were better perceived and the intention to leave the hospital was significantly lower.

All hospitals that participated in the study received feedback reports in which they could position themselves in the total sample of hospitals within their country. The next step for the participating hospitals is to get to work with these results, guided by international and national committees of stakeholders who have been following the RN4CAST study since the start in 2009. As described, there is large variation between countries. This is possibly due to the strong differences in the organisation and financing of healthcare. Remarkable are also the major differences between hospitals in the same country. In most countries some hospitals do manage however to create positive work environments for nurses. Learning from each other's road to success seems an appropriate strategy to getting started with the findings.

References available upon request,
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MEDTECH EUROPE AND THE CONTRACT FOR A HEALTHY FUTURE

Contributing to sustainable healthcare through a European medical technology industry alliance

MedTech Europe is an Alliance of European medical technology industry associations. Its current members are EDMA, the European In Vitro Diagnostics Manufacturers Association, and Eucomed, the European Medical Technology Industry Association. Founded in 2012, the Alliance welcomes other European medical technology associations to join.

By establishing the Alliance, Eucomed and EDMA want to represent their common policy interests more effectively and efficiently when needed. These policy domains currently focus on five areas:

1.) Legislation: This area mainly focuses on the upcoming revisions of the Medical Device Directives and the In Vitro Diagnostic Directives, and the implementation of the crossborder directive.

2.) Strategy: With the demographic and financial challenges that Europe is facing, the medical technology industry has drafted a 5-year strategy in which the medtech industry commits to value-based innovation to contribute to keeping Europe's healthcare systems sustainable.

3.) Health Technology Assessment: Both the in vitro diagnostics and the medical devices industries support the appropriate use of HTA, meaning that it should be a tool, rather than an inflexible rule. By focusing on this topic, MedTech Europe wants to contribute to informed decision-making.

4.) Patient Safety: Under this denominator, MedTech Europe will initially be looking primarily at the issue of Healthcare-associated Infections (HCAIs), the role our industry can play, and the role patients can play in managing their own safety.

5.) Environment: The medical technology industry actively engages in effective environmental management practices. For manufacturers, it is important to ensure a continued supply of product while minimising their environmental footprint. Hence "environment" as the fifth focus area.

Apart from collaborating closely on these five focus areas, both Eucomed and EDMA remain separate identities. Concretely this means that each of the three associations has its own board and its own Chief Executive Officer.

To achieve its goals MedTech Europe promotes a balanced policy environment that enables the medical technology industry to meet the growing healthcare needs and expectations of its stakeholders. In addition, the Alliance demonstrates the value of medical technology by encouraging its members to execute the industry's 5-year strategy, which focuses on value-based innovations and increased stakeholder relations, through health-economic research and data collection, through clear communications, and through organising industry events and trainings.

Demonstrating the Value of Medtech

Eucomed and EDMA have developed a 5-year industry strategy called "Contract for a Healthy Future" which will be executed under the umbrella of MedTech Europe. The Medical Technology Industry recognises the need to change in order to meet the challenges all stakeholders face in steering Europe's healthcare onto a sustainable path. Therefore, the medical devices and in vitro diagnostic industry needs to be a true partner in the shaping of healthcare in Europe for the years to come. In other words, medical technology companies will have to manage their portfolios, their investments with an eye on the other stakeholders in the healthcare system.

At the same time, the industry is committing to evidence-based innovation. No longer should innovation address clinical needs alone. By concentrating on value-based innovation, we can marry prevention, diagnosis, treatment and management with cost-containment, efficiency, improved health outcomes and societal benefits. In return, payers and policymakers must overcome silo budgeting in healthcare, and shift toward a holistic approach that considers the true value of medical

By concentrating on value-based innovation, we can marry prevention, diagnosis, treatment and management with cost-containment, efficiency, improved health outcomes and societal benefits.

Promoting a Balanced Policy-Environment

MedTech Europe promotes a balanced policy environment by engaging with EU regulators, politicians and other policymakers to create policies that enable value-based innovation in our industry to meet growing healthcare needs and expectations.

technology for all healthcare actors. New technologies which improve productivity and efficiency should be funded timely and appropriately in an effort to help people age healthily and tackle the shortage of healthcare resources.

Looking at Value is Looking at the Socio-Economic Picture

We now live in an era where it is critical to assess the full value of medical technology, the real life clinical effectiveness, but also the overall value for a patient and society at large of a novel technology.

Assessing the overall value means also taking into consideration clinician experience, patient adherence and compliance, and patient co-morbidities to mention but a few. It is telling that a high number of patients, up to 50%, who suffer from a chronic disease and have to take medication to prevent disease progression, do not stick to their prescription schedule. This only underlines the importance of ensuring that appropriate, real life assessments are made. In any case it will be important to be pragmatic when designing studies to assess the clinical effectiveness and ensure that all available data is taken into account.

Considering patients' health related quality of life, their satisfaction with the treatment and the impact of short and long term side effects are prerequisites when assessing the value of a novel technology. But this is only a starting point. To achieve a future sustainable European healthcare model, it will be critical to assess the full value of a technology and ensure that the socio-economic value and impact on economy and welfare are considered.

The Importance of Investing in Innovation

Less than 10% of healthcare spending goes on medical technologies (less than 1% of healthcare spending goes to in vitro diagnostics). Plotting a smarter course to healthcare delivery will mean radical changes and increasing investment in innovations proven to improve the efficiency of the healthcare system, ensure early diagnosis and prevent disease development.

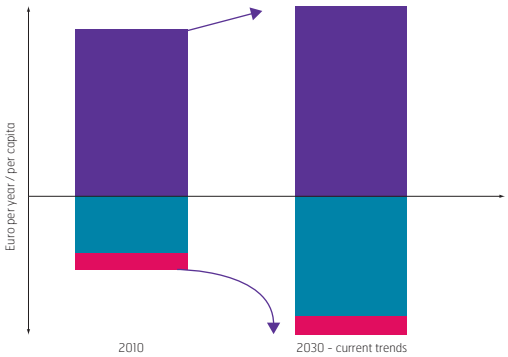
The right technologies can improve healthcare efficiency, thereby reducing future labour shortages; containing costs, and giving citizens the value of more healthy years in which to be active.

Author:

Serge Bernasconi
MedTech Europe Chief Executive Officer

> New technologies which improve productivity and efficiency should be funded timely and appropriately in an effort to help people age healthily and tackle the shortage of healthcare resources.

Figure 1. Current Trends



Legend. Fig.1 and Fig.2

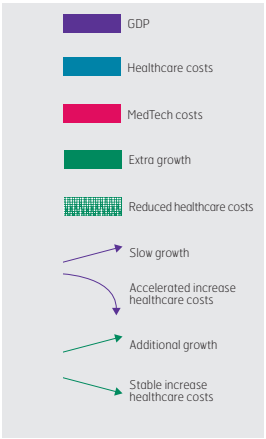
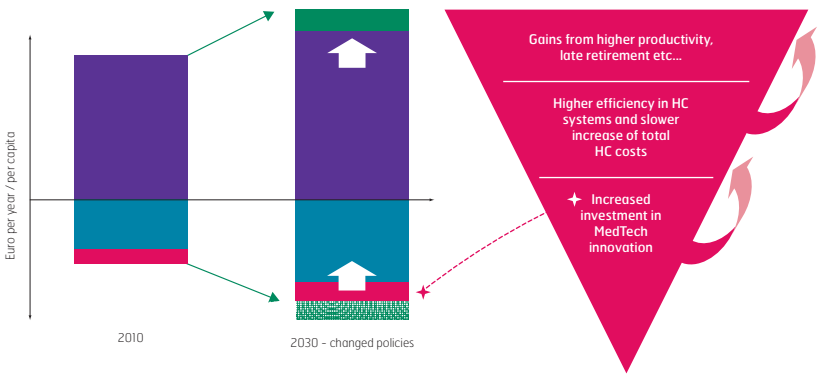


Figure 2. Benefits of embracing innovation



Source: Contract For A Healthy Future, MedTech Europe, 2012

INTERVIEW: REFLECTIONS ON HEALTHCARE IN ROMANIA

By Dr. Bogdan Jansen

How is healthcare organised in Romania?

Political changes in 1990 also affected the Romanian health system, which has gradually become two-tiered with a strong state component and a poorly represented private one, still to grow at national level.

The private network has rapidly developed a number of specialisations (GP, dentistry, ophthalmology, dermatology etc.) Little by little, in all university centres appeared and in all major cities polyclinics that provide almost all medical specialisations, dialysis centres, imaging centres and test labs.

Undoubtedly, the population of Romania still relies on the state hospital system for different purposes:

- In Romania, people's income is lower than in other European countries;
- Private hospital infrastructure is still scarce;
- There are no specific financial products on offer (by private insurance companies); and
- People are still tributary to a socialist mentality (until 1990, all medical services were free, irrespective of their complexity).

To provide a clearer picture of the hospital network, statistics say that Romania has almost 420 state hospitals (one-specialisation, multidisciplinary, regional, municipal, emergency, excellence centres and national institutes) and 30 small and medium-sized private hospitals.

Table 1. Basic facts on the Romanian healthcare system

Facts and Figures	
Size Population (2012)	19.39 million
Capital	Bucharest
Total GDP (2011)	179.8 billion USD
Health expenditure, % of GDP (2011)	3.1%
Health expenditure per capita (2010)	428 USD
Life expectancy at birth, years (2010)	73
Physicians (excluding dentists)	42,000
Ancillary medical staff	125,000
No. of hospitals (public and private)	420
No. of beds	125,650
Length of stay (2011)	
Acute care	6.48 days
Long-term care (chronic diseases)	21.21 days
Length of stay (2010)	
Acute care	6.49 days
Long term care (chronic diseases)	20.76 days

The private hospitals cannot assure the complexity of all type of casualties and cannot perform all complex surgical interventions. The majority of private hospitals still use medical personnel from state-owned hospitals with part-time arrangements.

The health system is mainly financed from the state budget (3-4% of the GDP) with funds being raised by collecting health insurance contributions from the population (both the employee and the employer must pay for the healthcare). However extended the system may be, funds fail to cover the real costs of healthcare and do not allow the public system to invest in infrastructure and state-of-the-art equipment all over the country.

Loans from the World Bank and EU structural funds represent a kind of 'emergency mode' component to Romanian healthcare. At present, only a small part of the healthcare system is financed by the private health insurance or directly by the population.

As for state hospitals, more than 350 of them have been moved from the jurisdiction of the Ministry of Health to that of the local governments in July 2010. The purpose of this transfer was to align the system to the EU practice and to give local governments more responsibility in the process. Thus, they are more likely to get involved in improving healthcare by relieving hospitals' budgets from the burden represented by maintenance and utilities costs, as well as in getting acquainted with the real needs for healthcare in the area. As a result, most local authorities have taken more financial responsibility, which has led to a reduction in the number of delayed payments to utilities or service providers.

How is Romania coping with the ongoing financial crisis? Has healthcare suffered spending cuts and how is this affecting the quality of healthcare provision?

The financial crisis hit Romania in January 2009 with many dramatic consequences: budget cuts, layoffs, investment cuts, bankruptcies, insolvencies, fiscal and budgetary deficit in all fields of activity.

Without an economic and social justification, the crisis brutally affected the medical system. The budget of the medical system has been drastically cut; important acquisitions have been stopped along with the financing for most of the national health programmes. All state employees have had a 25% salary cut (in reality this is nearer 38%), recruitment is on hold and all goods purchases forbidden (furniture, equipment, means of transport, etc). Moreover, in 2010, 70 hospitals were closed down with no economic and social reason (some of them have been reopened this autumn).

These measures, most of them irrational, have led to a decrease in efficiency and to a drop in the number of the free medical investigations during hospitalisation. The pharmaceutical budget has been drastically reduced, there have been negative changes in hospital comfort and scientific research has been restricted to a minimum.

However, the most disturbing aspect is directly linked to the working conditions and poor remuneration, which de-motivates medical staff and has induced a high degree of migration of medical staff towards countries with better financial conditions and opportunities for personal and scientific development.

On the other hand, the private system has developed a lot in the past three years and more medium-sized hospitals have been set up. Most of these focus on gynaecology/neonatology, ophthalmology and cardiology. Although there are also some multidisciplinary ones, as I stated before, they are still scarce and not yet relevant in the general healthcare system.

I understand there were widespread protests in January of this year after a draft healthcare reform bill proposing increased privatisation of healthcare. What is the current status of this reform? Why was it met with such strong opposition?

Mainly it is the same reform bill (with some minor alterations) that will be presented to the Parliament during the first session of next year. This project includes insurance co-payments and the disguised privatisation of the local healthcare centres and most hospitals.

The project contained an extra paragraph that stipulated the state (the Minister of Health) no longer had any exclusivity in the emergency system (SMURD), which had its own maintenance and equipment budget.

Taking the example of private medical healthcare, mostly supported by the National Health Insurance House (NHIH), the project allowed

any private ambulance unit to provide emergency assistance in case of acccidents (road accidents) even if this assistance was offered exclusively by a state company based on a partnership between the Ministry of the Interior and the Ministry of Health (emergency services available by calling 112: ambulance, fire brigade and police) and financially supported by NHIH. After the popular protests in January 2012 that were in favour of the exclusivity of the state system, the extra paragraph was removed and the payment of the service was passed to the Ministry of Health. Moreover, the project was changed to include the whole payment for any "emergency healthcare" from Ministry of Health budget.

Another popular demand was to drop the co-payment for healthcare in all circumstances (for GPs, specialists, hospitals and pharmacies). And last but not least, the population opposed their intention to privatise the local healthcare centres and the National Health Insurance house and their intention to privatise all hospitals. The project the people rejected was rewritten and embellished, the only alteration worth mentioning in the new bill being the one concerning the emergency healthcare units.

On researching healthcare in Romania the word corruption is a recurrent theme, especially in the form of informal payments. Is this practice still prevalent or has reform successfully removed this practice?

Unfortunately, no reform can make people change their ways in such a short time. There are at least two important aspects to consider:

- The extremely low salaries for medical personnel, so inferior to their professional skills and the complex conditions of their profession (at least in terms of responsibilities and stress).
- Patients just want to be healthy. It is common knowledge that salaries are low for healthcare professionals and there is a cultural easiness with direct compensations. Until there is a significant change, the culture of informal payments will continue.

In your opinion, what have been the three most important developments in healthcare in Romania in the past five years?

1. Health Law 95/2006 that reformed most of the system;
2. The ambulance and emergency unit SMURD (112) that has spread all over the country; due to the high volume and complexity and efficiency of their actions, this service has been remarkable development.
3. Private hospitals. Despite their need to improve medical performance, private hospitals represent a new kind of hospital environment for those patients who can afford it.

Hospital Management in Romania

Is there a specific training programme for hospital managers in Romania?

Unfortunately, in Romania there is no specific training course for hospital management. Hospital managers or potential candidates must be university graduates, irrespective of the institution.

In my opinion there must be a more profound specialisation in the complex issues involved in managing a hospital; from ensuring all equipment and medical supplies are available for medical interventions (from drugs to building utilities) to paying salaries based on performance criteria. Managers equipped with these skills permit the medical staff to concentrate on excellent provision of care. This is not an easy task considering the profound changes within the system but performance goals are key.

Is there an accreditation system for hospital managers in Romania? How is quality and safety assured in your hospitals?

Hospital managers are "accredited" after a two-week course. After their appointment, they sign a management contract containing their activity benchmarks with the legal owner of the hospital (town halls, the Ministry or local governments), with precise Key Performace Indicators (KPI) put in place.

Hospital and management performance is assessed once a year by the Ministry through Local Medical Governments. Objectives are set and attained against the national criteria accepted by the Ministry of Health. If all KPIs are fulfilled, the manager will be able to continue the work, establishing a new contract with performance criteria for the next year. If not, the contract is terminated and the management position becomes vacant.

We understand you are in the process of re-establishing a Romanian association of hospital managers. Can you tell us a little more about this? Your motivations, the role you hope it will play etc.

Established in 2006, the first four years of the association were outstanding: 260 members, two national conferences organised annually and numerous debates with local decision makers. The association discussed a series of amendments to Law 95, which was responsible for the national collective employment contract. However, after the change in government of 2009, most managers were removed and replaced. Now the association contains the few "survivors" that managed to hold their position.

New parliamentary elections will be held on December 9 this year and the chances for the association to start working properly again largely depend on the popular vote.

Interviewee:

Bogdan Jansen
General Manager
The Clinic Hospital Caritas – Acad. Nicolae Cajal
Bucharest

Cardiovascular and Interventional Radiological Society of Europe

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CIRSE

Heinz Kölking

NOTRE RESPONSABILITÉ EUROPÉENNE

Actuellement, les Européens n'ont pas la tâche facile. Les diverses conséquences de la crise économique et financière sont maintenant claires et imputées, à tort, à l'Union européenne. Nous constatons aussi que les pays ont tendance à se tourner de plus en plus vers le nationalisme et le particularisme, y compris au niveau national.

Il me semble donc de la plus haute importance de développer une Europe plus responsable. Des institutions ont été créées et elles doivent être utilisées. L'Europe est là pour les peuples, il est donc important que chacun d'entre nous, chacun dans sa propre sphère d'activité, améliore les conditions pour une Europe commune. C'est ce que nous faisons à l'AEDH à travers le dialogue et l'échange d'expériences dans nos hôpitaux, pour le bien de tous, les patients et le personnel. Pour citer le philosophe Karl Raimund Popper :
« Nous sommes tous responsables de ce qui arrive. Il est donc du devoir de chacun de prévoir les évènements difficiles et de travailler aux dispositifs qui peuvent rendre l'avenir meilleur. »

Comme l'année dernière, l'AEDH a organisé un séminaire lors de Medica qui se tient à Düsseldorf. Il y était de nouveau question de la directive sur les soins de santé transfrontaliers. L'année dernière, nous avions examiné quelles étaient les différentes attentes de la directive en nous plaçant du point de vue des différents acteurs concernés. Cette année, nous nous sommes interrogés sur sa mise en œuvre effective depuis la perspective du gestionnaire d'un établissement hospitalier. Il est particulièrement important de veiller à la qualité des structures, des processus et des résultats. La définition des normes et la comparabilité sont des conditions essentielles pour les prestations de santé effectuées en Europe. Sur la base des résultats de notre enquête, ce processus sera examiné plus avant au sein des comités de l'AEDH.

Le travail de notre association n'a pas été épargné par la crise financière. Tous les pays européens ont été contraints de faire des économies, ce qui a eu des effets considérables sur les budgets nationaux. Le financement des hôpitaux étant partiellement ou entièrement sous la responsabilité du secteur public en Europe, les effets peuvent s'avérer dramatiques. Dans ce contexte, nous pensons qu'il est de notre devoir de travailler au succès de ces hôpitaux et de souligner l'importance de la santé qui constitue notamment un pilier social. De plus, les hôpitaux créent un nombre élevé d'emplois et sont toujours considérés comme des puissances économiques fortes pour les régions.

Les activités de l'association ont également été directement touchées par la crise. Au cours de cette année, l'annulation du congrès de l'AEDH prévu à Athènes était difficile mais inévitable si l'on prend en compte la situation en Grèce. Les effets de cette décision nous poursuivront encore pendant un certain temps. Nous allons voir avec nos collègues grecs de quelle façon nous pouvons soutenir leur pays et considérer si nous pouvons y organiser un congrès dans un proche avenir.

Pour l'instant, notre prochain congrès nous réunira à Luxembourg les 28 et 29 novembre 2013 et nous sommes très reconnaissants à nos collègues luxembourgeois de nous avoir proposé de l'organiser dans un si bref délai. Nous retrouverons ensuite un rythme plus régulier avec l'organisation du congrès 2014 en Allemagne. L'Association allemande des directeurs d'hôpitaux est déjà à pied d'œuvre pour organiser cette conférence qui se tiendra à Berlin les 10 et 13 septembre 2014.

Ce numéro de *(E)Hospital* nous présente de nombreux sujets intéressants que vous pourrez, je l'espère, apprécier. Notre dossier porte sur le récent séminaire de l'AEDH qui s'est déroulé à Düsseldorf. Vous découvrirez également d'autres articles concernant le rendement, l'importance de l'environnement pour des soins infirmiers de qualité et un supplément spécial sur les technologies de l'information. Le country focus nous présente, dans ce numéro, les soins de santé en Roumanie.

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.

COMPTE RENDU DE LA 42ÈME ASSEMBLÉE GÉNÉRALE ORDINAIRE QUI S'EST TENUE LE 16 NOVEMBRE 2012 À DÜSSELDORF, ALLEMAGNE

M. Heinz Kolking, président de l'AEDH, a accueilli les membres à l'Assemblée générale. L'agenda 2012 et le compte rendu de la 41ème Assemblée générale ordinaire ont été approuvés à l'unanimité. Après cela, M. Kolking a pu présenter le rapport d'activité de l'AEDH concernant l'année écoulée.

Rapport d'activité 2012

M. Kolking a expliqué que les principales activités de l'AEDH développées au cours de l'année écoulée se sont organisées autour des difficultés économiques européennes et de celles de la Grèce en particulier. Comme nous le savons tous, nous avions l'intention de maintenir notre congrès en Grèce et nous étions tous prêts à lui allouer tous nos efforts mais nous avons dû nous résoudre à prendre la difficile décision d'annuler le congrès très tôt dans l'année. M. Kolking a souligné qu'il aurait été irresponsable de continuer : trop de signes nous portaient à croire qu'il n'y aurait ni un nombre suffisant de délégués, ni assez de soutien de la part de l'industrie locale.

Les conséquences sont douloureuses pour les associations grecque et européenne et l'AEDH fait tout son possible pour les rendre supportables pour tous. Le Conseil d'administration examinera cette question à la prochaine réunion et le Bureau fera de même en décembre. Il a insisté sur le fait que nous devions réfléchir à la manière dont nous organiserons nos congrès à l'avenir afin que nous puissions nous prémunir contre ce genre de risque.

M. Kolking a poursuivi son compte rendu en remerciant Marc Hastert et l'association luxembourgeoise de nous avoir proposé d'accueillir notre congrès en 2013. La préparation est déjà très avancée. C'est Berlin qui accueillera notre congrès en 2014. Cette situation a causé une importante charge de travail au sous-comité scientifique et à celui des affaires européennes, le SCEA.

Quand il a abordé les questions économiques, le président a fait remarquer que l'AEDH est directement dépendante de l'évolution économique des pays qui soutiennent notre association. Des changements dans les termes et les conditions sont prévus et nous devons être certains que les changements qui s'opèrent au niveau national auront un impact au niveau européen. Pour conclure sur une note plus positive, M. Kolking a annoncé la réélection de M. Willy Heuschen en tant que secrétaire général de l'AEDH.

Le président a conclu son rapport en rappelant le rôle important que l'AEDH se devra de jouer en Europe. Même si, dans un sens, nous ne sommes pas en première ligne, nous pouvons aussi avoir de l'influence et nous devons nous donner la peine d'apporter notre opinion : l'argent n'est rien en regard d'une Europe éminemment sociale. Cette intention mérite amplement d'être défendue.

Présentation des comptes 2011 et du budget 2013

Le secrétaire général M. Willy Heuschen a présenté les comptes 2011 et le budget 2013. Il a expliqué que le budget 2011 approuvé par l'Assemblée générale avait envisagé un excédent de 4 050 € mais que l'année 2011 avait accusé un déficit de 3 928,93 €. Les raisons de cet écart peuvent s'expliquer en partie par la baisse des revenus réels par rapport à l'estimation faite dans le budget 2011. M. Heuschen a souligné l'impact positif qu'ont les nouveaux partenariats conclus avec l'industrie sur notre stratégie à long terme. Il a également remercié nos partenaires Ecclesia et Becton Dickinson pour cet échange fructueux et enrichissant. Profitant de cette occasion, il a annoncé qu'un troisième partenariat avait été signé avec Arcadis.

Malgré le déficit de l'année 2011, le secrétaire général a eu le plaisir d'annoncer la stabilité financière de l'AEDH. Le solde des contributions non acquittées a diminué de 3 116,85 € par rapport à 2010 et s'élève maintenant à 23 126,14 € pour les années 2010 et 2011. Il a également souligné qu'il n'y a pas eu de croissance du capital au cours des années écoulées.

Quand il a abordé le budget 2013 et les nouveaux tarifs des frais d'adhésion, M. Heuschen a déclaré à l'Assemblée générale que le Bureau propose que les frais soient basés, pour les membres ordinaires, sur ceux de 2012 accompagnés d'une indexation de 3%. Cette augmentation nécessaire nous permettra de faire face à la hausse des prix. De plus, il a proposé que la cotisation annuelle pour les membres associés soit augmentée de 100 €.

Il a expliqué que l'AEDH travaille en étroite collaboration avec la Fédération des Hôpitaux Luxembourgeois afin que le congrès qui s'y déroulera en 2013 soit une réussite. Sachant que les organisateurs ont déjà dû verser un acompte de 6 000 € en 2012, nous pouvons estimer un chiffre d'affaires global du congrès de 10 000 €. Toujours pour le budget 2013, nous souhaiterions trouver trois autres partenaires. Nous avons actuellement de réelles opportunités et le chiffre d'affaires est estimé, comme l'an dernier, à 60 000 €.

En ce qui concerne les dépenses, le budget proposé est le même que l'année précédente à part quelques ajustements mineurs en raison de la hausse des prix. Parmi les dépenses extraordinaires, 3 000 € seront utilisés pour rembourser l'Association grecque de l'acompte versé pour le congrès de 2012 qui a dû être annulé. Après le succès des séminaires informatiques, nous avons également mis de côté 7 000 € en prévision de nouvelles activités.

L'adhésion

De façon plus positive, l'AEDH a eu le plaisir d'accueillir un nouveau membre associé. Après une collaboration fructueuse dans le passé, l'Assemblée générale a unanimement accepté l'IUIL, l'Association luxembourgeoise, comme membre associé.

Il y avait cependant aussi une triste nouvelle. Après un long processus de réflexion, nous nous sommes résolus à demander à l'Association turque de ne plus faire partie de l'association. Cette décision n'a pas été prise à la légère et n'est pas motivée par leur difficulté à s'acquitter de leurs cotisations (il n'est pas dans nos habitudes ou dans notre politique d'exclure les membres qui ont des difficultés financières) mais c'est le choix qui nous a semblé le plus adéquat. Il a été approuvé par l'Assemblée générale.

Deux derniers sujets paraissaient encore dans notre agenda. La première intervention est venue de M. Marc Hastert qui a parlé du prochain congrès AEDH en 2013 à Luxembourg et a demandé à tous les membres de divulguer cette information au sein de leurs associations nationales. Arcadis, notre dernier partenaire issu de l'industrie, a ensuite pris la parole pour présenter l'entreprise et ses services. Leo Van der Kemp a décrit le partenariat entre Arcadis et l'AEDH comme un « match parfait » et dit combien il était impatient de continuer la collaboration avec notre association.

En l'absence de questions de l'auditoire, M. Kolking a clôturé la réunion en informant les membres que la prochaine Assemblée générale aura lieu durant le 23ème Congrès de l'AEDH qui se tiendra à Luxembourg le 28 novembre 2013.

L'application de la directive sur les soins de santé transfrontaliers en milieu hospitalier : comment gérer la qualité ?

La directive européenne sur les droits des patients en matière de soins de santé transfrontaliers est entrée en vigueur le 24 avril 2011. Sa transposition en droit national dans les États membres doit être effectuée avant le 25 octobre 2013. Au cours de ce processus de transposition, l'AEDH soutient que les acteurs impliqués dans la gestion hospitalière ont le devoir d'exprimer leur point de vue et de se prononcer quant aux mesures qui peuvent être mises en place. C'est pour favoriser l'échange des informations et des expériences au niveau européen que ce séminaire a été organisé.

L'expérience des directeurs d'hôpitaux européens et les résultats du questionnaire AEDH y ont également été présentés. À la lecture des résultats du questionnaire, nous sommes étonnés de constater que la qualité n'est pas toujours une priorité et peut même parfois être absente des projets de mission des hôpitaux. Il est toujours possible de répondre à ce questionnaire et nous invitons tous nos membres à consacrer un peu de leur temps à le remplir.

Les conclusions de ce séminaire sont les suivantes :
- Les systèmes sont déjà complexes et nous devons veiller à ce que la directive ne les complexifie pas davantage ;
- Nous pensons que la directive est une opportunité qui doit nous permettre d'accroître la transparence ;
- Nous sommes convaincus qu'une définition commune de la qualité est absente de la directive et que l'AEDH a un rôle à jouer dans l'élaboration d'un cadre commun pour la qualité.

« People Performance » : un outil de référence pour les hôpitaux
Par Bart Van Daele

L'outil de benchmark « People Performance », destiné à l'évaluation du personnel médical et paramédical, a été conçu pour créer des critères objectifs en matière d'évaluation du personnel. Un projet pilote a été initié : après avoir mis au point les définitions et les questions méthodologiques et ajusté un modèle préliminaire sur la base du feedback des hôpitaux, un outil de base de données décisionnelle a été conçu par une société de logiciels professionnels. L'analyse montre qu'il n'y a pas de corrélation significative entre l'efficacité de l'équipe soignante et la taille ou le nombre des services dans un hôpital, si l'on fait exception des laboratoires et du service des urgences. En ce moment, vingt et un hôpitaux participent intensivement à cette analyse comparative afin que les résultats puissent être utilisés pour la préparation des budgets 2013. À l'avenir, elle prendra également en compte l'efficacité d'une équipe en fonction du nombre et du profil des membres qui la constituent et permettra une analyse plus approfondie de la gestion de l'équipe soignante, médicale et paramédicale.

L'environnement de travail des infirmier(e)s : trouver des solutions pour la satisfaction des infirmier(e)s et des patients
Par Walter Sermeus, Luk Bruyneel

L'étude « Registered Nurse Forecasting » (RN4CAST) était l'une des plus importantes études de ce genre et comprenait un consortium de chercheurs de quinze pays sous la direction de l'Université Catholique de Louvain (UCL), en Belgique, et de l'Université de Pennsylvanie, aux États-Unis. Les résultats montrent que tous les pays de cette étude sont confrontés à des challenges en ce qui concerne la qualité des soins et le maintien à son poste du personnel infirmier qui sembleraient liés à l'organisation des soins infirmiers. Les États-Unis ont un propos intéressant qui permet aux infirmier(e)s de rester à leur poste et de rendre la profession plus intéressante. En effet, aux États-Unis, le nombre d'infirmières ayant déclaré avoir l'intention de quitter l'emploi qu'elles occupaient était beaucoup plus faible. Cela semble être le résultat d'une suite d'efforts entrepris pour améliorer la dotation en personnel infirmier dans les hôpitaux.

Un bon environnement de travail est le postulat de départ pour obtenir des soins de bonne qualité : les investissements en personnel sont inutiles dans les hôpitaux si l'on ne s'occupe pas de l'environnement. Un suivi qualitatif de cette étude dans les hôpitaux belges participant à l'étude RN4CAST a montré l'importance du rôle des infirmières surveillantes. Nous pouvons apprendre les uns des autres la stratégie la plus appropriée pour gérer cette situation difficile avec succès, c'est ce que nous apprennent les résultats de l'étude « Registered Nurse Forecasting ».

Le système de santé néerlandais : noblesse oblige
Par Guy Peeters

Le modèle néerlandais qui a été créé en 2006 est très réussi : le système de santé néerlandais est considéré par beaucoup comme le meilleur en Europe et il sert de modèle à de nombreux pays qui cherchent à l'imiter dans leur propre système de santé. Nous avons de-

mandé à Guy Peeters, du Maastricht University Medical Centre, s'il est véritablement aussi exceptionnel qu'on le dit.

Ainsi, il se demande maintenant comment maintenir son haut niveau de prestation. C'est un système en constante évolution et on peut actuellement observer plusieurs mouvements qui sont contradictoires. D'une part et pour des raisons de qualité et de coûts, il y a une concentration et une différenciation des activités de soins de santé et d'autre part une limitation de la concentration demandée par les autorités antitrust. En outre, un élément de mécanisme de marché – conçu dans ce système pour réduire les listes d'attente et augmenter la liberté des prix et des capacités – s'oppose au contrôle des budgets de la santé instaurés par le politique.

À l'avenir, c'est une approche systémique axée sur la prévention et la prévision qui devra être privilégiée. Pour cela, la collaboration entre les spécialisations au sein même des établissements hospitaliers et entre toutes les parties prenantes de la chaîne de santé en général est nécessaire. Ce qui implique donc également une nouvelle vision du rôle de son propre établissement dans le système de santé : nos activités ne doivent pas avoir pour fondement « le système de soins de santé sert les établissements de santé », mais « les établissements de santé servent le système de soins de santé ». Chaque établissement a l'obligation de proposer des soins de santé abordables et durables.

Les « Real Time Location Systems » dans l'environnement hospitalier

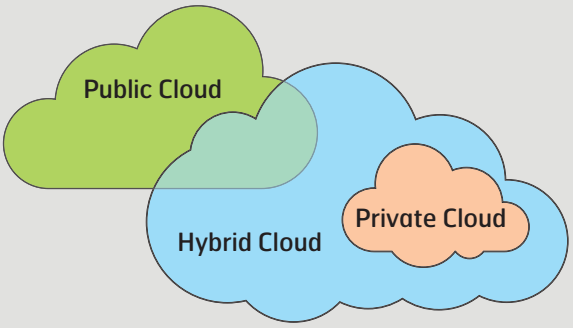
Par James Stahl

Les « Real Time Location Systems » (RTLS) ont d'abord été connus dans le milieu de la santé comme une forme plus sophistiquée de gestion des stocks pour les équipements mobiles coûteux comme les pompes à perfusion, les machines à ECG, ou les lits. Récemment, ils ont commencé à être utilisés pour la mesure du fonctionnement, l'analyse opérationnelle et la démarche que l'on doit accomplir.

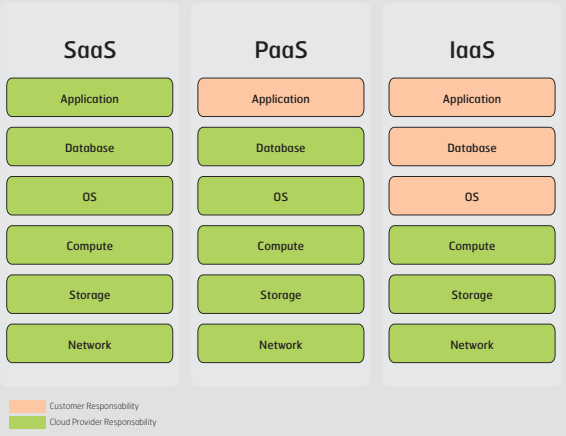
L'application clinique des RTLS en est encore à un stade relativement précoce, mais un travail conséquent a déjà été entrepris dans le domaine de la recherche des foyers infectieux dans les hôpitaux, pour la gestion des lits dans les salles d'urgence. Les centres hospitaliers sont des espaces physiques complexes et les ressources que l'on recherche peuvent se trouver n'importe où. En principe, les RTLS fournissent les mécanismes virtuels à mettre en place pour être en mesure de prodiguer des soins. Si les lignes directrices préconisent la réalisation de la thérapie ou de l'examen adéquat à la bonne personne et au bon moment, les RTLS sont la logique qui permet un meilleur accès à la technologie. Enfin, les RTLS, sous une forme ou sous une autre, deviendront probablement la pierre angulaire des environnements informatiques qui seront bientôt omniprésents dans les hôpitaux et qui relient les dossiers de santé électroniques (DES), les examens effectués au lit du malade, et les autres ressources hospitalières au patient et au prestataire.

Les applications du « cloud computing » dans le dossier de santé électronique

Par Gonzalo Fernández-Cardeñosa, Isabel de la Torre-Díez



Le « cloud computing » est apparu ces dernières années comme un nouveau modèle de stockage et de traitement de l'information. L'environnement de l'e-santé est-il prêt à s'engager dans le cloud ? Ce paradigme offre plusieurs avantages en termes d'évolutivité, de flexibilité et de disponibilité des ressources. Dans les dernières années, nous avons assisté à une incroyable croissance de l'information numérique. Les solutions basées sur le cloud surgissent comme un moyen de gérer cette énorme quantité d'informations.



L'environnement de l'e-santé peut profiter de cette nouvelle technologie : une information clinique plus disponible permettra au personnel médical d'améliorer son efficacité. Les solutions basées sur le cloud donnent également la possibilité aux patients de jouer un rôle actif dans ce processus, de consulter leur propre dossier de santé électronique à partir de n'importe quel ordinateur possédant une connexion Internet. Afin de garantir la confidentialité des données patients, les prestataires de services de cloud computing et les organismes de santé doivent maintenant s'attacher très sérieusement et en priorité aux questions de confidentialité et de sécurité.

Heinz Kölking

UNSERE EUROPÄISCHE VERANTWORTUNG

Überzeugte Europäer haben es heute nicht leicht. Die vielfältigen Auswirkungen der Finanz- und Schuldenkrise sind augenscheinlich. Zu Unrecht werden diese Probleme mit der Entwicklung in Europa in Verbindung gebracht. Darüber hinaus gibt es in vielen Ländern Europas die Tendenz zurück zur Nation und Kleinstaaterei. Selbst auf nationaler Ebene müssen wir Bestrebungen zur Separation erkennen.

Umso wichtiger ist es, dass Europa in Verantwortung weiter entwickelt wird. Hierfür gibt es Institutionen. Institutionen sind nicht Selbstweck. Europa ist für die Menschen da. Umso wichtiger ist es, dass wir alle, jeder für sich in seinem Wirkungskreis die Voraussetzungen für ein gemeinsames Europa verbessert. Wir im EVKD tun dies durch Dialog und Erfahrungsaustausch für die Krankenhäuser und damit für die Menschen, die Patienten und die Mitarbeiter. Um hier erneut den Philosophen Karl Raimund Popper zu zitieren:

„Wir sind alle mitverantwortlich für das, was kommt. So ist es unser aller Pflicht, statt etwas Schlimmes vorauszusagen, uns einzusetzen für jene Dinge, die die Zukunft besser machen können."
Wie schon im vergangenen Jahr hat der EVKD in diesem Jahr ein Seminar auf der weltweit größten Medizinmesse in Düsseldorf durchgeführt. Erneut ging es um die Richtlinie zur grenzüberschreitenden Versorgung von Gesundheitsdienstleistungen. Wurden im letzten Jahr noch die vielfältigen Erwartungen über die Wirkung dieser Richtlinie aus unterschiedlichen Perspektiven beleuchtet, ging es diesmal um Fragen der konkreten Umsetzung aus der Perspektive des Managements im Krankenhaus. Von besonderer Bedeutung ist dabei die Qualität der Strukturen, Prozesse und der Ergebnisse. Die Definition von Standards und eine Vergleichbarkeit sind eine wesentliche Voraussetzung für europaweit angebotene Gesundheitsleistungen. Auf der Grundlage einer Befragung wird dieser Prozess nunmehr in den Gremien des EVKD vertieft.

Die Folgen der Finanzkrise gehen auch unserer Arbeit im Verband nicht vorbei. In allen Ländern wird gespart und das hat erhebliche Auswirkungen auf die Staatshaushalte. Die Finanzierung von Krankenhäusern ist in unseren Ländern partiell oder ganz eine staatliche Aufgabe. Die Auswirkungen sind zum Teil dramatisch. In diesem Kontext sehen wir uns in der Pflicht, uns für die erfolgreiche Arbeit der Krankenhäuser einzusetzen und auf die Bedeutung der Gesundheitsversorgung als sozialpolitischen Grundpfeiler hinzuweisen. Darüber hinaus sind Krankenhäuser immer auch ein regionaler Wirtschafsfaktor mit vielen Arbeitsplätzen.

Aber auch unsere Arbeit im EVKD ist unmittelbar betroffen. Die Verschiebung unseres diesjährigen europäischen Kongresses in Athen war und ist schmerzlich, war aber vor dem Hintergrund der Ereignisse unumgänglich. Die Wirkungen dieser Entscheidung werden uns noch eine Zeitlang befassen. Wir werden gemeinsam mit unseren griechischen Freunden nach Wegen suchen, damit wir in absehbarer Zeit mit unserem EVKD in Griechenland präsent sein können.

Gleichwohl werden wir vom 28. bis 29 November 2013 einen Kongress in Luxemburg durchführen. Wir sind sehr dankbar, dass unsere Kollegen in Luxemburg sich dazu bereit erklärt haben.

Für 2014 (10. – 13. September) ist dann im regulären Rhythmus unseres Europakongresses der deutsche Verband der Krankenhausdirektoren Gastgeber in Berlin.

Über die aufgezeigten Inhalte hinaus hat diese Ausgabe von (E)Hospital viele weitere interessante Themen für Sie zusammen gestellt. Der Länderfokus befasst sich in dieser Ausgabe mit unseren Partnern aus Rumänien.

Ihr
Heinz Kölking
Präsident EVKD

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

42. ORDENTLICHE GENERALVERSAMMLUNG 16.11.2012, DÜSSELDORF

Der Präsident der EVKD, Hr. Heinz Kölking, hieß die Mitglieder zur Ordentlichen Generalversammlung herzlich willkommen. Die diesjährige Tagesordnung sowie das Protokoll der 41. Ordentlichen Generalversammlung wurden einstimmig angenommen. Nachfolgend stellte Herr Kölking den Tätigkeitsbericht der EVKD vor.

Tätigkeitsbericht

Hinsichtlich der hauptsächlichen Tätigkeitsbereiche des vergangenen Jahres erklärte Herr Kölking, dass sich die Aktivitäten EVKD im Wesentlichen auf die wirtschaftliche Situation in Europa konzentrierten, mit besonderem Fokus auf Griechenland. Wie allen bestens bekannt, hatten wir die Absicht, unseren Kongress in Griechenland abzuhalten; doch obwohl sich alle Beteiligten extrem bemühten, sahen wir uns Anfang des Jahres gezwungen, eine schwierige Entscheidung zu treffen – und den Kongress abzusagen. Heinz Kölking betonte, dass es unverantwortlich gewesen wäre, mit den Vorbereitungen fortzufahren, da es von den potentiellen Teilnehmern zu viele Hinweise darauf gab, dass nur eine unzureichende Zahl von Delegierten erschienen wäre sowie es nur eine unzureichende Unterstützung von Seiten der örtlichen Wirtschaft gegeben hätte.

Die Folgen sind schmerzhaft, sowohl für die Griechische als auch die Europäische Vereinigung, und die EVKD setzt alles daran, diese Konsequenzen für alle so erträglich wie möglich zu gestalten. Der Geschäftsführende Ausschuss wird diese Angelegenheit beim der nächsten Sitzung weiter erörtern, ebenso wie das Präsidium im Dezember. Herr Kölking unterstrich weiter, dass bei der zukünftigen Organisation des Kongresses intensiv zu überlegen sei, wie die Risiken so gering wie möglich gehalten werden könnten.

In weiterer Folge dankte Heinz Kölking dann Herrn Marc Hastert und der luxemburgischen Vereinigung für deren Angebot, den kleineren 2013 Kongress abzuhalten. Die Vorbereitungen laufen bereits auf Hochtouren. 2014 folgt dann der Kongress in Berlin. Diese Situation bedeutet insgesamt eine enormen Arbeitsaufwand für den unterausschuss Wissenschaft sowie den unterausschuss Europäische Angelegenheiten (SCEA).

Weiter ging es mit wirtschaftlichen Angelegenheiten: der Präsident merkte an, in welcher Weise die EVKD direkt von Trends in Ländern abhängig ist, die unsere Vereinigung unterstützen. Es gibt derzeit Veränderungen (der allgemeinen Geschäftsbedingungen) und wir müssen sicherstellen, dass Veränderungen auf nationaler Ebene sich auch auf EU-Ebene auswirken. Eine positive Nachricht: im Rahmen seines Tätigkeitsberichts verkündete Heinz Kölking auch die Wiederwahl von Willy Heuschen als Generalsekretär der EVKD.

Der Präsident schloss seinen Bericht mit einer nochmaligen Betonung der bedeutenden Rolle der EVKD in Europa. Obwohl wir in gewissem Sinne im Hintergrund agieren, können wir doch auch Einfluss nehmen und diesen auch lohnend kommunizieren; ein sozial gerechtes Europa ist von viel größerer Bedeutung als Geld und immer wert, dafür zu kämpfen.

Geschäftsbücher 2011 und Wirtschaftsplan 2013

Generalsekretär Willy Heuschen stellte die Geschäftsbücher und den Wirtschaftsplan für 2013 vor. Er erklärte, dass das von der Generalversammlung angenommene Budget 2011 einen Überschuss von € 4.050 voraussah, das Jahr 2011 jedoch mit einem Defizit von € 3.928,93 endete. Diese Diskrepanz lässt sich teilweise durch die niedrigeren tatsächlichen Einahmen als die im 2011 Budget vorgesehenen Einnahmen erklären.

Herr Heuschen unterstrich dann den positiven Einfluss der neuen Partnerschaften mit der Industrie auf unsere langfristige Strategie und bedankte sich bei den Partnern Ecclesia und Becton Dickinson für den guten und bereichernden Austausch. Zudem nahm er die Gelegenheit zum Anlass, die dritte Partnerschaft mit Arcadis zu verkünden.

Trotz des Defizits für das Jahr 2011 zeigte sich der Generalsekretär erfreut darüber, die finanzielle Stabilität der EVKD bekanntzugeben. Der Restsaldo ausstehender Einlagen wurde im Vergleich zu 2010 um € 3.116,85 reduziert und beträgt nun € 23.126,14 für die Jahre 2010 sowie 2011. Herr Heuschen unterstrich zudem, dass wir in den vergangenen Jahren keinen Kapitalzuwachs aufgewiesen haben.

Hinsichtlich des Wirtschaftsplan für 2013 und neuen Raten der Mitgliedsbeiträge erklärte Herr Heuschen der Generalversammlung, dass laut Vorschlag des Vorstands die Gebühren für ordentliche Mitglieder auf denen von 2012 basieren sollten, mit linearer Indexanpassung von 3%. Diese Erhöhung ist erforderlich, um die steigenden Preise zu bewältigen. Zusätzlich wird eine Erhöhung um € 100 der jährlichen Gebühr für außerordentliche Mitglieder vorgeschlagen.

Herr Heuschen berichtete weiters von der engen Zusammenarbeit zwischen der EVKD und der Vereinigung der Krankenhäuser Luxemburgs, um den Erfolg der Konferenz 2013 sicherzustellen. Aufgrund der Tatsache, dass die Organisatoren bereits 2012 eine Anzahlung von € 6.000 geleistet haben, gehen wir davon aus, dass der Kongress einen Gewinn von € 10.000 abwerfen wird. Ebenfalls im Wirtschaftsplan 2013 ist das Ziel enthalten, drei zusätzlich Partner zu finden. Für dieses Ziel gibt es realistische Möglichkeiten; der geschätzte Beitrag liegt wie im letzten Jahr bei € 60.000.

Auf der Ausgabenseite ist das vorgeschlagene Budget dasselbe wie letztes Jahr, abgesehen von einigen kleineren Anpassungen aufgrund angestiegener Preise. Als außerordentliche Ausgaben werden € 3.000 Rückerstattung veranschlagt. Dies ist notwendig, da die griechische Vereinigung eine Anzahlung für den 2012 Kongress - der abgesagt werden musste - geleistet hat. € 7.000 werden für neue Aktivitäten - nach dem Erfolg der IT-Seminare - veranschlagt.

Mitgliedschaft

Positiv ist die Begrüssung eines neuen Mitglieds der Vereinigung zu vermelden. Nach der erfolgreichen Zusammenarbeit in der Vergangenheit hat die Generalversammlung einstimmig beschlossen, die Luxemburger Vereinigung IUIL als außerordentliches Mitglied aufzunehmen.

Es gab jedoch leider auch negative Nachrichten. Nach einem langen Prozess der Reflexion wurde die türkische Vereinigung für den Ausschluss aus der Vereinigung vorgeschlagen. Diese Entscheidung wurde nicht leichtfertig gefällt und beruht nicht auf der Tatsache, dass sie ihre Mitgliedschaft nicht bezahlen können (es ist gegen unsere Grundsätze, solche in finanziellen Schwierigkeiten auszuschließen), sondern es gab einfach kein Interesse mehr von türkischer Seite. Der Ausschluss wurde von der Generalversammlung bestätigt.

Die letzten beiden Punkte der Tagesordnung betrafen Präsentationen. Die erste kam von Herrn Marc Hastert, der die 2013 EVKD in Luxemburg vorstellte und alle Mitglieder dazu aufrief, den Kongress in ihren nationalen Vereinigungen anzukündigen. Danach ergriff unser neuester Partner aus der Industrie, Arcadis, das Wort und stellte sich und seine Dienste vor. Leo van der Kemp beschrieb die Partnerschaft zwischen der EVKD und Arcadis als „einfach perfekt" und brachte zum Ausdruck, wie sehr er sich auf die Zusammenarbeit mit der Vereinigung freue.

Da es keine Fragen der Teilnehmer gab, schloss Herr Kölking die Sitzung und informierte die Mitglieder über den Termin der nächsten Generalversammlung: diese wird am 28. November 2013, am 23. Kongress der EVKD in Luxemburg stattfinden.

Die grenzüberschreitende Gesundheitsversorgung im Krankenhausalltag: Wie sieht das optimale Qualitätsmanagement aus?

Am 24. April 2012 trat die EU-Richtlinie über Patientenrechte in der grenzüberschreitenden Gesundheitsversorgung in Kraft. Die Umsetzung in nationales Recht ist bis zum 25. Oktober 2013 abzuschließen. Während dieser Übergangsphase sollten die Akteure des Krankenhausmanagements aktiv ihre Meinung zu diesem Thema kundtun und die nötigen Aktionen kommentieren, betont die EVKD. Aus diesem Grund wurde das Seminar organisiert: zum Austausch von Informationen und Erfahrungen auf europäischer Ebene.

Zusätzlich zu den Erfahrungsberichten von Krankenhausmanagern aus ganz Europa wurden die Ergebnisse des EVKD Fragebogens vorgestellt. Etwas überraschend zeigte die Auswertung, dass Qualität nicht immer eine Priorität darstellt und bisweilen nicht in die Leitbilder der Krankenhäuser aufgenommen wurde. Die Umfrage läuft nach wie vor und wir ersuchen alle Mitglieder dringend sich daran zu beteiligen.

Aus dem Seminar können die folgenden Schlüsse gezogen werden:

- Die Systeme sind bereits jetzt komplex, und wir müssen sorgfältig darauf achten, dass die Richtlinie nicht noch weiter zu dieser Komplexität beiträgt
- Die Richtlinie stellt eine Chance dar, die Transparenz zu erhöhen
- Wir glauben, dass in der Richtlinie noch eine allgemeine Definition der Qualität fehlt, und dass die EVKD in der Entwicklung eines gemeinsamen Qualitätsrahmens eine Rolle spielen sollte.

Mitarbeiterleistung: ein Benchmarking-Instrument für Krankenhäuser

Von Bart Van Daele

Zweck des Benchmarking-Instruments „Mitarbeiterleistung" (People Performance) war die Entwicklung objektiver Kriterien zur Evaluierung von Mitarbeiterfunktionen. Im Rahmen eines Pilotprojekts wurden Definitionen und methodologische Belange bestimmt, ein vorläufiges Modell auf Basis von Rückmeldungen der Krankenhäuser angepasst und nachfolgend von einer professionellen Software-Firma innerhalb eines Datendepots konzipiert.

Die Analyse zeigte, dass es keine signifikante Korrelierung zwischen Leistung der Mitarbeiter und Größe oder Anzahl der Abteilungen in Krankenhäuser gibt, mit der Ausnahme von Laboratorien und Notfallabteilungen. Zum jetzigen Zeitpunkt nehmen 21 Krankenhäuser am Benchmarking teil, das sehr stark für die Budget-Erstellung 2013 eingesetzt wird. In der Zukunft sind die zeitgleiche Analyse und Benchmarking von Pathologie und Arbeitnehmerprofil geplant, womit die umfassendere Analyse der Unterschiede im Personalbereich möglich sein wird.

Das Arbeitsumfeld des Krankenpflegepersonals: der Schlüssel zur Zufriedenheit von Pflegekräften und Patienten

Von Walter Sermeus, Luk Bruyneel

Die Studie ‚Registered Nurse Forecasting' (RN4CAST) war eine der größten dieser Art und bezog ein Konsortium von Forschern aus 15 Ländern unter Führung der Katholischen Universität Leuven in Belgien sowie der University of Pennsylvania in den USA ein. Ihre Ergebnisse zeigen, dass sich alle Länder dieser untersuchten Herausforderungen hinsichtlich Betreuungsqualität und Mitarbeiterbindung gegenübersehen. Dies scheint in engem Zusammenhang mit der Organisation des Pflegepersonals zu stehen. Die USA bieten eine interessante Sichtweise bezüglich der Mitarbeiterbindung von Pflegepersonal und der Attraktivität dieses Berufs. In den USA gab ein weitaus geringerer Prozentsatz dieser Mitarbeiter die Absicht an, ihren derzeitigen Beruf zu verlassen. Dies könnte auf verstärkte Bemühungen zurückzuführen sein, mehr Pflegekräfte in Krankenhäusern anzustellen.

Ein gutes Arbeitsumfeld ist die Voraussetzung für das Erreichen guter Pflegeresultate; Investitionen in Mitarbeiter stellen sich in Krankenhäusern mit schlechtem Umfeld als sinnlos heraus. Eine qualitative follow-up Studie an belgischen Krankenhäusern, die an der RN4CAST Untersuchung teilnahmen, zeigte die große Bedeutung von Managern der Pflegekräfte in diesem Zusammenhang auf. Generell scheint es eine gute Strategie zu sein, auf Basis dieser Ergebnisse aus den Erfolgserlebnissen anderer zu lernen.

Das Gesundheitssystem der Niederlande – Adel verpflichtet

Von Guy Peeters

Das im Jahr 2006 eingeführte holländische Model ist äußerst erfolgreich; die Gesundheitsversorgung in den Niederlanden wird als eines der besten in Europa angesehen. In der Tat eifern viele Länder bei Erstellung ihrer Systeme diesem Modell nach, doch wir fragten Guy Pee-

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ters vom Maastricht University Medical City, ob das System tatsächlich so gut ist, wie jeder zu denken scheint.

Eine wichtige Frage hinsichtlich des holländischen Systems ist, wie man den hohen Standard aufrechterhält. Das System wird fortlaufend weiterentwickelt und derzeit gibt es mehrere Bewegungen, die sich gegenseitig widersprechen. Einerseits liegt eine Konzentrierung und Differenzierung von Gesundheitsaktivitäten aufgrund von Qualität und Kosten vor, andrerseits sind Beschränkungen der Konzentration durch Wettbewerbsbehörden zu beachten. Zusätzlich gibt es ein Element des Marktmechanismus im System, das dazu dienen soll, Wartelisten zu verkürzen und Preis und Volumen zu liberalisieren – diesem steht allerdings die politisch induzierte Kontrolle des Makrobudgets der Gesundheitsversorgung gegenüber.

In der Zukunft ist ein systematischer Ansatz erforderlich, der sich auf Prävention und Voraussage fokussiert. Dies setzt die Zusammenarbeit zwischen Fachbereichen innerhalb der Krankenhäuser und zwischen allen Interessensgruppen innerhalb der allgemeinen Gesundheitsversorgungskette voraus. Eine neue Vision bezüglich der Rolle der eigenen Organisation innerhalb des Gesundheitssystems ist gefragt: als Basis für Aktivitäten darf nicht „das Gesundheitssystem dient den Gesundheitseinrichtungen" gelten, sondern vielmehr „die Gesundheitseinrichtungen dienen dem Gesundheitssystem". Jede Einrichtung ist demnach verpflichtet, die Gesundheitsversorgung leistbar und nachhaltig zu erhalten.

Real-Time Location Systems (RTLS) im Krankenhausumfeld

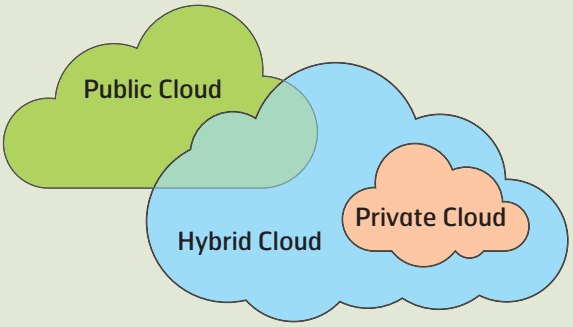
Von James E Stahl

RTLS fanden im Gesundheitsbereich zuerst in Form eines hochentwickelten Bestandsmanagements für kostspielige mobile Geräte wie Infusionspumpen, EKG-Maschinen und Betten ihren Einzug. Doch in letzter Zeit werden RTLS mehr und mehr bei Messtechnik, operativer Analyse sowie bei Operationen angewendet. Die klinische Anwendung von RTLS befindet sich nach wie vor in einem relativ frühen Stadium, doch solide Arbeit wurde bereits auf dem Gebiet des Aufspürens infektiöser Ausbrüche in Krankenhäusern geleistet, ebenso beim Bettenmanagement in Notfallabteilungen.

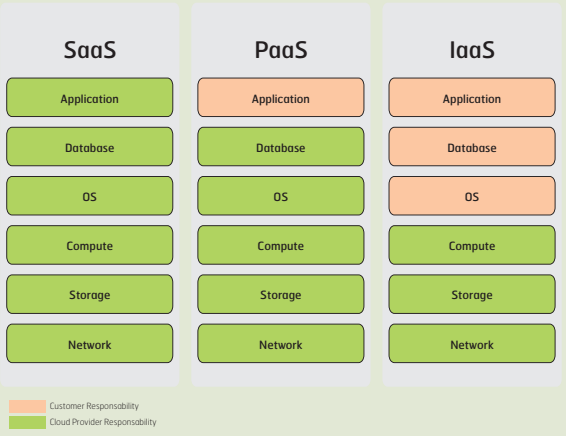
Allgemeine Krankenhäuser sind komplexe physikalische Räume, in denen erforderliche Ressourcen nahezu überall lokalisiert werden können. Im Prinzip liefern RTLS den Mechanismus für die Errichtung virtueller Pfade zur Bereitstellung von Pflege. Während Richtlinien dazu dienen, die richtige Therapie oder Untersuchung der richtigen Person zur richtigen Zeit zukommen zu lassen, sind RTLS die logische, arbeitserleichternde Technologie. Und letztlich sind RTLS – in welcher Form auch immer – wahrscheinlich das Rückgrat weiterer „sensing" Umfelder in Krankenhäuser, die die Verbindung von elektronischen Krankenakten, Point-of-Care Tests und weiteren Krankenhausressourcen mit Patient und Anbieter erlauben.

Cloud-Lösungen im Bereich elektronischer Krankenakten

Von Gonzalo Fernández-Cardeñosa, Isabel de la Torre-Díez



Cloud-Computing wurde in den letzten Jahren zunehmend als neues Modell für das Speichern und den Umgang mit Information angeführt. Ist das e-Health Umfeld bereit für einen Umzug in die Wolke? Das Cloud Paradigma bietet mehrere Vorzüge hinsichtlich Skalierbarkeit, Flexibilität und Verfügbarkeit der Ressourcen. In den letzten Jahren hat die digitale Information ein enormes Wachstum verzeichnet. Cloud-basierte Lösungen zeigten sich als Möglichkeit, mit dieser überwältigenden Informati-



onsmenge umzugehen. Das e-Health Umfeld kann von dieser neuen Technologie profitieren; die Verbesserung der Verfügbarkeit der klinischen Daten wird das medizinische Personal bei der Verbesserung ihrer Effizienz unterstützen. Cloud-basierte Lösungen erlauben zudem dem Patienten, aktiv an diesem Prozess teilzuhaben, indem sie ihre elektronische Krankenakte (electronic health records, EHR) von jedem Gerät mit einer Internet-Verbindung abrufen können. Datenschutz und Sicherheit müssen für beide Parteien im Vordergrund stehen: Gesundheitseinrichtungen und Cloud-Service-Anbieter müssen beide die Vertraulichkeit von Patientendaten gewährleisten.

AGENDA 2012

January 2013

Critical Care Congress (SCCM) 19-23
San Juan, Puerto Rico
www.sccm.org

European Forum for Good Clinical Practice (EFGCP) Annual Conference 29-30
Brussels, Belgium
www.efgcp.eu

February

18th International Symposium on Infections in the Critically Ill Patients 7-8
Sevilla, Spain
http://www.infections-online.es

Dementias 2013 7-8
London, UK
www.mahealthcareevents.co.uk

March

ECR 7-11
Vienna, Austria
www.myesr.org

European Association of Hospital Pharmacists Congress 13-15
Paris, France
www.eahp.eu

IT@Networking Awards 2013 14-15
Brussels, Belgium
www.itandnetworking.org

ISICEM 19-22
Brussels, Belgium
www.intensive.org

April

World Health Care Congress 8-10
Washington, D.C., United States
www.worldcongress.com

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- Intelligent Hospitals
- Pharma Supplement
- Focus: Ireland

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