A tongue twister town

Luhacovice

A small spa town in Moravia, this place is renowned for its hot springs with high CO₂ content, making it a popular destination for health and wellness.

Don’t wait to watch them die
Take health services to men!

Tele-oncology proves successful in Canada

An estimated 6.7 million people in developed countries were diagnosed with cancer in 2007. Delivering their care is no easy matter. Tele-oncology, the remote provision of oncology services, could not only reduce the costs of consultations for cancer departments, but also for patients. Kerry Heacox, of 11 Communications, reports on the success of remote consultations in Labrador and Newfoundland.

Past introduced in the late ’90s, by the mid-00s pilot tele-oncology programmes were implemented. However, when the funding ended, most were discontinued, either as not cost-effective or inadequately evaluated.

Today, the ubiquity of the Internet and the sophistication of streaming video and audio technology eliminate the highest hurdles of adding telediagnosis consultations to the repertoire of services provided by cancer treatment centre. Other than cost, now the biggest hurdle is specialist acceptance.

A model tele-oncology programme has flourished since 2003 in the far north-eastern Canadian provinces of Labrador and Newfoundland. This was the brainchild of Dr Max House, an emeritus professor at the Memorial University of Newfoundland. Dr House is not a household name, yet his pioneering initiatives, started in 1990, to provide telemedicine equipment on offshore North Atlantic drilling rigs to deliver remote triage to seriously injured rig workers, was instrumental in the development of telediagnosis and telemedicine.

Since then, the clinical culture of the Memorial University of Newfoundland has been keen on implementing cost-effective and beneficial ways to use telemedicine and has been a global leader in this field. In 2001, the Newfoundland Cancer Treatment and Research Foundation and Memorial University’s Telehealth and Education Technology Resource Agency began an 18-month pilot programme to demonstrate the effective development, integration and sustainability of delivering oncology clinical services remotely.

The Newfoundland and Labrador Tele-oncology Programme originates from the Dr H Bliss Murphy Cancer Centre in St. John’s, Newfoundland, and initially served 22 communities, some located a four-hour distance away. The video-conferencing system is used by patients for pre- and post-surgical and radiation therapy treatment consultations with an oncologist. The patient visits a participating clinic or hospital, where a clinician or nurse is in attendance.

Utilisation has increased dramatically. In the second half of 2005, Dr House, the principal operator, Bad Luhacovice AG, had a thrombosis, which has placed on men’s health issues.

There is little doubt about the urgency. A striking fact is that low social status affects men’s health far more than women’s. In socially deprived areas of Great Britain, for example, men’s life expectancy is as low as 54 years, whereas in other areas their life expectancy is up to 80 years. In many cases, the differences are even more extreme. One concludes that the problem of inequalities in health has to deal with men’s health issues.

The spa reached a height of popularity for over 300 years, these springs have been used for their health-giving properties. The current spa operator, BAD Luhacovice, 40, offers 1,100 beds and 20% of patients/guests are foreigners, primarily from Germany, Austria and Israel, but more recently also from the US, Asia and Russia. The ratio of private payers to insurance patients is currently 50:50.

Don’t wait to watch them die. Take health services to men!

• The lower life expectancy of men is mainly due to insufficient uptake of healthcare services and an unhealthy lifestyle
• Low social status influences men’s health far more than women’s health
• Medical care must address men at work, at sports centres, and other gatherings

Patient care 18-20

Lab & Pharma 15-17

IT & Teled 8-9

Radiology 10-12

Cardiology 12

Surgery 13

LED Lighting units
Endoscopic submucosal dissection
Arthroscopic procedures

10 Radiology
Multidetector CT angiography
The dawn of molecular CT
Global aims for Chinese ultrasound

European Forum for Those in the Business of Making Healthcare Work

Season’s greetings from the EH team

May you know joys, peace and success in all your fine endeavours in 2009
**Healthcare and the 2009 EU Presidencies**

The next two countries to preside over the EU Presidency — the Czech Republic (first half year of 2009) and Sweden (second half) — recently presented the priorities of their presidencies for healthcare at the European Health Forum Gastein (EHFG). In cooperation with France, holder of the previous six months EU Presidency, five common key themes were defined:

- Promoting an EU for patients
  - Improving health security at European level
  - Ensuring safe and efficient pharmacueticals
  - Addressing disease prevention and health promotion
  - Promoting actions for healthy and dignified aging

In terms of healthy and dignified aging, the Czech Republic will focus on financial sustainability, while Sweden will highlight the dignity aspects of elder care, promoting closer cooperation between health and social policy areas.

Another focal point for both presidential periods will be the antimicrobial resistance in and beyond hospitals. Sweden will focus on the poor development of new antibiotics, and evaluating the possibilities of accelerating research for new antibiotics.

E-health implementation to improve patient safety and quality of care is also on the agenda during both presidencies.

The Swedish presidency will also follow up on the EU alcohol strategy. A conference, which will examine progress made in its implementation and to explore possible improvements, may include topics such as young women and fatal alcohol syndrome, children in families with alcohol problems and the identification of the ‘drivers’ that contribute to alcohol-related harm.

**Report: Christian Przunowski**

---

**Tele-oncology proves a success in Canada**

Tele-oncology now encompasses treatment for kidney disease, neurology, occupational therapy and in 2009, diabetes, as well as oncology in 42 rural communities.

The Centre for Health Information reported that, between July 2008 and October 2008, more than 22,000 patient visits and physician case reviews with specialists had been conducted.

Tele-oncology has become one of the largest components in oncologist Dr. Jonathan Greenland's practice. He attributes the tele-oncology programme for being able to reduce...
Czech hospitals are seeking powerful inspiration regarding antibiotics (ATB) consumption from France, where a recent public campaign helped to decrease ATB consumption by 30%. It is generally recognised that Czech physicians over-prescribe antibiotics, leading to the genesis of new antibiotic-resistant bacterial systems. According to Dr Vlastimil Jindrák, who heads the antibiotic unit at Prague Homolka Hospital, it is more than likely that antibiotics worth over CZK one billion are prescribed and used improperly each year. Czech officials and healthcare sector leaders are preparing a public campaign similar to French one, expecting that both health professionals and the public will gain better knowledge of appropriate ATB usage.

Another Nobel Prize winner? The Czech Academy of Sciences has announced that its representatives will nominate Professor Antonín Holy for Nobel Prize for Medicine in 2009. Interviewed by a newspaper, Academy Chairman Professor Vaclav Paces said: "We will do our best to make the Nobel Prize committee members change their thinking in a way to recognise not only exceptional minds working in basic research but also those who developed instruments directly saving patients’ lives. This is the case for Prof Holy’s discoveries."

Prof Holy is certainly one of the brightest brains. Czech science has ever had. His numerous discoveries include antivirals used for the treatment of herpetic eruptions (Duvira, 1980, or Vistide, 1996), AIDS/HIV (Viread, 2001 or Truvada, 2004) or hepatitis B (Hepsera, 2002). He invented the above mentioned drug, Viread, in 2001, it is currently the most powerful treatment available for AIDS/HIV infection. Should the Academy of Sciences efforts be fruitful, Prof Holy would be just third Czech and Nobel Laureate in this country’s history. So far, the Nobel Prize for Chemistry (polarography) was awarded to Jaroslav Heyrovsky in 1959, and to Jaroslav Seifert in 1984 for literature.

**Can you afford to give us a lifetime of the very best care?**

By integrating imaging, lab diagnostics and healthcare IT, we can advance the science of medicine and the economics of healthcare.

Imagine a healthcare system that keeps us healthier by detecting disease earlier. Quality of life increases and costs are better controlled. Genomics and the integration of molecular diagnostics, advanced imaging and healthcare IT open up new possibilities for a lifetime of care. Together, we can deliver on the promise of personalized medicine. www.siemens.com/healthcare +49 69 797 6420

Answers for life.
**INTERNATIONAL EVENTS**

**Despite the poor market outlook Medica 2008 proved a superlative event**

Düsseldorf, November – Medica’s anniversary had many significant facets: in its 40th year, and for the 40th time, the spectacular international medical trade fair broke its previous year’s record in visitor numbers – but, only just. The event was not only struck by the sudden winter onset, but also by a storm that brought a level of chaos to Messe Düsseldorf’s outdoor environs.

Meanwhile, the 17 exhibition halls, hosting 137,000 visitors, were so many that interference networks overloaded and transmission intermittently ceased. Nonetheless, MEDICA and COMPAMED again offered a superlative stage on which to present the world’s most up-to-date medical technologies manufactured by over 4,300 exhibitors (50% of them from countries other than Germany). Along with the exhibition the congress programme provoked stimulating discussions between and with medical experts.

Apart from the customary high interest in medical technology and electronics, interest was high in physiotherapy procedures and medical IT. Among the individual country’s pavilions we visited, New Zealand showed us innovations from Pulsecor and WinScribe. Pulsecor was demonstrating its mobile, non-invasive measuring device, which is already in use at university hospitals in Edinburgh and Aarhus. This provides a simple, accurate and quick assessment of aortic stiffness and central blood pressure measuring various echocardiographic values takes a minute.

WinScribe focuses on equipping mobiles, e.g. blackberries and PDAs, with a dictating function, so that physicians can update medical records wherever they are and transmit them to a typist automatically. It was pointed out that this improved communication can result in up to 50% savings in diagnosis management costs.

Draeger introduced Drug Test 5000, a saliva-based, quick drug test that recognises six different classes of substances: cannabis, cocaine, opiates, amphetamines (so-called designer drugs) and benzodiazepines (tranquilisers). In up to 10 minutes it gives results for each substance, firm report. This not only leads to fast information about potential drug misuse but also helps to reduce the number of more costly and time intensive blood tests in a laboratory.

Some programme highlights

During the opening session the focus was on the RSNA’s goal to work with other international, radiology societies to establish a uniform global standard of practice. RSNA President Theresa C McLoud MD, said that universal availability of images electronically, and the potential of access to local specialist through internet technology, has ‘flattened’ the world, and made the need for worldwide uniform standards for radiology professionals of critical importance. She recommended that ‘radiology training and residency curricula should reflect international changes in our specialty area and the need for subspecialisation’. In addition to the implementation of a core curriculum for three years of residency training, Dr McLoud recommended that all radiologists should have two years of subspecialty training. Global certification should include a national board to oversee standardised exams, managed through the cooperative efforts of the world’s radiology societies.

Professor Maximilian F Reiser MD, Chair of the Department of Clinical Radiology, Munich University, was named Honorary Member, the highest tribute the RSNA bestows to radiologists who do not work in radiology in North America. Dr Reiser was recognized for his leadership in European radiology, specifically cited for his vision and work for the European Congress of Radiology (ECR), the European Society of Musculoskeletal Radiology, and the German Radiological Society. Another new Honorary Member was neuroradiologist Dr Jian-Ping, President of Beijing Tiantan Hospital, who is also principal advisor for radiology to the Chinese Ministry of Health.

More than 1,800 scientific papers, 1,606 education exhibits and 729 scientific posters were accepted. The 2008 head-turners to present various mobile applications for the world’s smallest heart-lung machine (Cardiohelp), Maquet showed an original and completely equipped ADAC rescue helicopter, causing a stir and much interest among visitors.

Chicago, November – At first glance, the 94th Scientific Assembly and Annual Meeting of the Radiological Society of North America appeared to be bigger than ever and impervious to the massive economic recession of its host country. RSNA 2008 was more than just. The event was not only even more spacious compared to the previous year.

Throughout the RSNA meeting, the visual effect was that each exhibit hall was sparsely populated and professional attendance had plummeted. In fact, it had not. The RSNA reported a decline in professional attendance of only 1%, or 774 fewer medical professionals and a total attendance of 58,795.

Judging by the size of the crowds in the hallways and sky bridge linking exhibit halls and seminar rooms, it appeared that a good number of profession- al attendees were not keen on physical expansion of the exhibits. At the RSNA, where a stroll around exhibit halls can lead to the discovery of new products and services, the three-hall layout may have had a totally unexpected, very detrimental effect. With the exception of the smaller vendors lucky enough to find their booths strategically positioned near the huge displays of Agfa Healthcare, Fuji Medical Systems, GE Healthcare, Philips Healthcare and Siemens Healthcare, many vendors were publicly saying that radiologists and their administrative staff were not visiting the exhibit halls in the way they had done during the past decade.

This does not bode well for the economic well-being of diagnostic imaging vendors. Just prior to the RSNA meeting, Philips Healthcare had announced that 1,600 jobs would be cut in 2009.

Mark Vochos, GE Healthcare’s president and CEO for global diagnostic imaging, said in an interview with international news agency Reuters that GE Healthcare probably would also reduce jobs and cut costs (see report on Page 3). Additionally, the American Hospital Association (AHA) has recently published a report stating that 45% of US hospitals surveyed stated they were delaying purchases of clinical technology or equipment, and that 3% were delaying IT investments.

Crowding and congestion in the aisles were indeed reduced. In fact, there were 24 fewer companies exhibiting and 3,373 fewer vendor employees, a drop of 14% compared to the record vendor participation of 2007. And even though more exhibit hall space was now available, the total area rented was 47,759 square metres, a reduction of 4% in rentable space compared to the previous year.

With so many US companies filing bankruptcy or shutting down, some RSNA attendees also appeared very cautious about ordering products from smaller vendors. The topic of vendor survival and the robustness of the diagnostic imaging industry to withstand a recession successfully appeared to have been discussed more than the RSNA 2008 scientific programme itself.

No less impressive were accurate plastic models of the human anatomy, for use by doctors to explain their illness to patients very clearly to patients who often cannot understand what is being said. Even experts in various medical fields were markedly impressed by the oversized dimensions of the organs.

Rcession fears penetrate RSNA 2008

...
The clean-room specialists
From planning to training and facility management

Since 1985, Ortner cleanrooms unlimited has specialised in all areas of clean-room technology – from clean-room planning and implementation to clean-room facility management. The special requirements of customers and partners require comprehensive, expert knowledge of each of the special aspects of clean-room technology, such as flow measurement technology, or ventilation and air conditioning. Providing solutions for customers’ problems requires not only experts, with their sovereign command over their individual specialties, but also, and especially, partners for whom the classic skills of accuracy, reliability and discipline continue to be a guiding principle. Ortner cleanrooms unlimited stands for this dual way of thinking.

www.ortner-group.at

HÄMOSAN Life Science Services GmbH is a private Research and Service Company with core competencies in the safety and total quality management systems. Clean-room facilities are available for training and small scale production. The training programmes have a clear emphasis on hands-on experience. Correct behaviour and procedures in clean-rooms are explained in theory in the morning classes. In the afternoon, the ideas are put into practice. Thus, the goals of learning by carryout out a method and creating awareness for contamination control are the basis of HÄMOSAN clean-room training.

Teams from hospitals will find a place where both learning and the training of the new contents can be done in a top quality, appealing environment.

www.hamosan.com

Product innovations in neurological rehabilitation and traumatology

Tyromotion GmbH presented a truly sensational and innovative neurological rehabilitation device, named PAILO. Developed with the help of top physicians and therapists, the device measures hand and arm functioning and has an additional sensor system to provide interactive training programmes. PAILO is simply plugged in to the USB interface on a patient’s PC or laptop and then the tailor-made software provides the appropriate therapy. The core competence of Tyromotion GmbH and its extensive network is in its combination of mechanics, electronics and software, which promises all-in-one product development in medical technology.

www.tyromotion.com

A full service provider in traumatology, I.T.S. GmbH, specialises in medical implants and instruments made of titanium. The firm’s research and development department has worked with Austrian doctors to make existing plates even more advanced and user-friendly, so that patients can particularly benefit from the reduced intervention times. A good example is the new, narrower LTS plate for the head of the humerus, which ensures a surgeon’s intervention can be minimally invasive. This reduces operating times, which saves costs and benefits patients, because they can return to their normal way of life more quickly.

www.itsimplant.com

IT-solutions and tele-monitoring

Other Austrian companies focus on hospital equipment and IT-solutions. For example, the Graz-based e-movation team focuses on the development, introduction and integration of highly innovative, comprehensive IT solutions for healthcare industry and its service providers, together with complex e-government applications and their integration with local authorities and existing healthcare structures. At Medica 2008, the company’s presentation focused on the development of mobile solutions based on the Apple iPhone as an all-in-one end device for doctors and healthcare staff, and on the introduction of RFID components in the healthcare industry. There was a live demonstration of a support application for logistical and clinical processes in healthcare based on intelligent RFID systems.

www.e-movation.at

By using the Near Field Communication (NFC) standard eHealth systems provide an out-of-the-box solution for easy-to-use wireless home-, health- and tele-monitoring applications. The eHealth systems research unit is part of the Biomedical Engineering division of the Austrian Research Centre GmbH – ARC, developing and evaluating IT-solutions and services, for example to facilitate personalised therapy management of chronic diseases such as diabetes mellitus, heart failure, hypertension, obesity and others.

www.arc.at

Life Science Austria (LISA) is a focal programme acting as a centre for people from all over the world who are interested in the life sciences in Austria. With its associates in the Austrian regions, ecosplus/Technopols Lower Austria, Human Technology Styria, the LISA Vienna Region, the Tyrolean Future Foundation and the Upper Austrian Technology & Marketing Company TMG including the Health Cluster, LISA is the first point of contact in Austria for anyone with questions about scientific collaboration, setting up an operation, or funding and sponsoring projects and businesses in this country.

Austria Wirtschaftsservice GesmbH (aws) is responsible for running the programme for the Austrian Federal Ministry of Economics and Labour. LISA forms the gateway to the Austrian life sciences scene – lively and creative, and with enormous potential for innovation.

LISA – Life Science Austria
Ungargasse 37, 1030 Vienna
E-mail: lisa@awsg.at
www.lifescienceaustria.at

LISA – Life Science Austria
CoNTRY sPECIAL

At MEDICA 2008 – the world’s biggest medical trade fair – Life Science Austria (LISA) placed 16 companies and institutions firmly under the international spotlight. At the Austrian stand visitors examined their impressive range of innovations, which included medical implants and instruments, neurological rehabilitation equipment, video communications systems for healthcare, such as e-health systems using NFC and other innovative IT solutions, bio-safety and clean-room technology, mechatronics and precision engineering. Along with these were inspiring presentations of research projects carried out at the Medical University Graz.

I.T.S. implants enable a quick return to normal life for patients

LISA – Life Science Austria
CoNTRY sPECIAL

The clean-room specialists
From planning to training and facility management

Since 1985, Ortner cleanrooms unlimited has specialised in all areas of clean-room technology – from clean-room planning and implementation to clean-room facility management. The special requirements of customers and partners require comprehensive, expert knowledge of each of the special aspects of clean-room technology, such as flow measurement technology, or ventilation and air conditioning. Providing solutions for customers’ problems requires not only experts, with their sovereign command over their individual specialties, but also, and especially, partners for whom the classic skills of accuracy, reliability and discipline continue to be a guiding principle. Ortner cleanrooms unlimited stands for this dual way of thinking.

www.ortner-group.at

HÄMOSAN Life Science Services GmbH is a private Research and Service Company with core competencies in the safety and total quality management systems. Clean-room facilities are available for training and small scale production. The training programmes have a clear emphasis on hands-on experience. Correct behaviour and procedures in clean-rooms are explained in theory in the morning classes. In the afternoon, the ideas are put into practice. Thus, the goals of learning by carryout out a method and creating awareness for contamination control are the basis of HÄMOSAN clean-room training.

Teams from hospitals will find a place where both learning and the training of the new contents can be done in a top quality, appealing environment.

www.hamosan.com

Product innovations in neurological rehabilitation and traumatology

Tyromotion GmbH presented a truly sensational and innovative neurological rehabilitation device, named PAILO. Developed with the help of top physicians and therapists, the device measures hand and arm functioning and has an additional sensor system to provide interactive training programmes. PAILO is simply plugged in to the USB interface on a patient’s PC or laptop and then the tailor-made software provides the appropriate therapy. The core competence of Tyromotion GmbH and its extensive network is in its combination of mechanics, electronics and software, which promises all-in-one product development in medical technology.

www.tyromotion.com

A full service provider in traumatology, I.T.S. GmbH, specialises in medical implants and instruments made of titanium. The firm’s research and development department has worked with Austrian doctors to make existing plates even more advanced and user-friendly, so that patients can particularly benefit from the reduced intervention times. A good example is the new, narrower LTS plate for the head of the humerus, which ensures a surgeon’s intervention can be minimally invasive. This reduces operating times, which saves costs and benefits patients, because they can return to their normal way of life more quickly.

www.itsimplant.com

IT-solutions and tele-monitoring

Other Austrian companies focus on hospital equipment and IT-solutions. For example, the Graz-based e-movation team focuses on the development, introduction and integration of highly innovative, comprehensive IT solutions for healthcare industry and its service providers, together with complex e-government applications and their integration with local authorities and existing healthcare structures. At Medica 2008, the company’s presentation focused on the development of mobile solutions based on the Apple iPhone as an all-in-one end device for doctors and healthcare staff, and on the introduction of RFID components in the healthcare industry. There was a live demonstration of a support application for logistical and clinical processes in healthcare based on intelligent RFID systems.

www.e-movation.at

By using the Near Field Communication (NFC) standard eHealth systems provide an out-of-the-box solution for easy-to-use wireless home-, health- and tele-monitoring applications. The eHealth systems research unit is part of the Biomedical Engineering division of the Austrian Research Centre GmbH – ARC, developing and evaluating IT-solutions and services, for example to facilitate personalised therapy management of chronic diseases such as diabetes mellitus, heart failure, hypertension, obesity and others.

www.arc.at

Life Science Austria (LISA) is a focal programme acting as a centre for people from all over the world who are interested in the life sciences in Austria. With its associates in the Austrian regions, ecosplus/Technopols Lower Austria, Human Technology Styria, the LISA Vienna Region, the Tyrolean Future Foundation and the Upper Austrian Technology & Marketing Company TMG including the Health Cluster, LISA is the first point of contact in Austria for anyone with questions about scientific collaboration, setting up an operation, or funding and sponsoring projects and businesses in this country.

Austria Wirtschaftsservice GesmbH (aws) is responsible for running the programme for the Austrian Federal Ministry of Economics and Labour. LISA forms the gateway to the Austrian life sciences scene – lively and creative, and with enormous potential for innovation.

LISA – Life Science Austria
Ungargasse 37, 1030 Vienna
E-mail: lisa@awsg.at
www.lifescienceaustria.at

LISA – Life Science Austria
CoNTRY sPECIAL

At MEDICA 2008 – the world’s biggest medical trade fair – Life Science Austria (LISA) placed 16 companies and institutions firmly under the international spotlight. At the Austrian stand visitors examined their impressive range of innovations, which included medical implants and instruments, neurological rehabilitation equipment, video communications systems for healthcare, such as e-health systems using NFC and other innovative IT solutions, bio-safety and clean-room technology, mechatronics and precision engineering. Along with these were inspiring presentations of research projects carried out at the Medical University Graz.
Make a note in your 2009 diary: The Hospital Manager Symposium

 Participation in the Hospital Manager Symposium, which is organized by EUROPÄISCHES HOSPITAL in cooperation with the European Congress of Radiology and which is part of the congress, has increased continuously since its introduction six years ago and now includes about 250 attendees who listen closely to the lectures and discussions.

 What makes this event so successful is the combination of three factors: the expertise and knowledge (of which there is plenty) that make for a healthy radiology department: management, IT and finance. Once again, this event has invited leading experts in these fields to give talks and lead discussions with participating hospital and department managers.

 Stefan Furtmüller MA, Manager of Contrast Management-Consulting

 ‘What makes a hospital successful?’

 The general conditions for hospital management are not easy (too many stakeholders and interest groups, different financial systems, etc.). Nonetheless, the existing conditions and structures still offer numerous opportunities to increase efficiency with regards to customised and high-quality healthcare delivered by VR-Leasing tools and methods can help here. Some hospital groups make good use of these approaches (at least in some areas) and for most organisations there is still quite a lot of room for improvement.

 Leonardo La Pietra, CEO of the European Institute of Oncology ‘Accreditation and standards of excellence in Europe’

 Leonardo La Pietra will describe the individual management of the European Institute of Oncology and experience with Joint Commission International Accreditation.

 In perspective, the MCC should be part of a more integrated patient file that will be able to jump through the healthcare system. Information technology (IT), with the realisation of an electronic patient’s record (ERP), accessible online from different places, could provide a valuable aid in the management of medication continuity.

 Dr. Pierre Thopet, Director of the Arras Hospital ‘Changing medical and organisational processes through IT’

 The new Arras Hospital has incorporated far-reaching choices in terms of technology. The first results of these selections are visible today. The implementation of new ‘admissions-pathway-billing’ circuits and new cooperation initiatives is having an impact on information productivity. Particularly in the ‘Programme for the Categorisation of Information Systems’ and DRGs financing. The results are positive. Since July 2007 we have been experimenting with ‘paperless’ consultations: the analysis and impact of this new way of working.

 Dr. Hanna Pohjonen, Healthcare IT Consultant, Rosalécordy ‘Enablers for teleradiology’

 In her speech, Hanna Pohjonen will discuss the advantages of e-market places that offer a secure platform for the provision and consumption of imaging services by developing a new working environment for professionals and teams, a shared workspace for cross-border communications and access to individual images and patient records.

 Andre Hoppen: When it comes to financing

 We distinguish between manufacturer-owned leasing, which means financing solutions available directly from the manufacturers whose products a hospital chooses; the independent leasing companies that mainly offer contracts with small business volumes, and bank-linked leasing, facilitated by VR-Leasing.

 The particular feature of the VR-Leasing group is that, whilst it is a generalist company and offers services through the leasing model, it works around specific business divisions, which means there are specific solutions for IT companies, for the automotive sector and the medical sector. VR Medico is a separate division within VR-Leasing. All our employees have many years of experience in the business such as medical technology, health economics, medicine and pharmaceuticals. With this staff structure we are well-positioned and talk the same language as the customers. This is particularly important for advising large and individual customers, helping us to gain an understanding of their specific requirements and enabling us to offer customised financial solutions.

 A further feature of VR-Medico is that our credit analysts are trained at the Academy of the German Hospital Association to ensure they can fully read and understand hospital balance sheets, as well as why and how balances function, based on the DRGs. Or, let’s take the example of the gGmbH in Germany: this type of company is not aimed at achieving profit but rather at a social service – but it still enters into leasing contracts.

 We don’t only operate in Germany; VR-Leasing cooperates with a multitude of subsidiaries and partner companies and offers medical technology leasing over almost all of Europe. Each country has specific requirements as to how a leasing contract should be set up.

 One basic difference between Germany and other European countries is that, in Germany, there is not normally a requirement to make a down-payment, something which is a requirement for a leasing contract in most other countries. Additionally, the balance sheets in the various countries are very different. In Eastern European countries, for instance, hospitals draw up balance sheets in an analogue way, based on the IFRS standard or the US-GAAP standard, that is, based on international balance sheet guidelines, which is actually quite rare in Germany.

 In Eastern European countries we also distinguish between financial leasing and operational leasing, which, again, is the exception in Germany.

 What is the difference between the two kinds of leasing and which is suitable for the market in a way that ensures they don’t suffer any losses.

 Operational leasing means that the leasing company has to dispose of the equipment at the end of the lease term. Within the EU, medical technology can only be sold (and sold on) via so-called medical products advisors. This is why the leasing company has to work with the manufacturers and brokers when it comes to selling on the equipment.

 Operational leasing offers more flexibility but is more expensive. The lease duration is a maximum of four years, after that the equipment is returned or sold on. Operational leasing is the right product for customers who want to keep continuously abreast with technological progress and innovation, maybe because they are market leaders for a particular medical service in their area. These may be large service providers but also individual, smaller surgeries that cooperate with large service providers, and which bridge a medical gap for the respective service provider, or which offer the best possible service based on the latest technological developments. By comparison, the lease duration for financial leasing is eight years and obviously works out cheaper.

 Our concept of responsibility towards the customer not only includes advising them to choose the right strategy but also to monitor whether they actually generate enough money in working with the leased equipment to cover the monthly outgoings of the lease. This involves assessing how many private payers, private patients, patients covered by medical insurers and referring doctors are passing through the hospital and what types of patients with what GOA figure (physician fee schedule figure) these are. A lease contract is not a matter of course but in each case it is put to the acid test.

 This can lead to surprising results. One example is a hospital with 80 beds, located near a conurbation, was under economic pressure and the question is whether it should be closed or whether there may be a new, viable concept. If yes, what could this concept look like? The hospital’s advantage is its regional aspect and location, which many patients appreciate because relatives and friends have easy access and can visit more often. Through negotiations instigated by VR Medico the hospital made contact with a large provider in the nearest big town, which was interested in attracting more patients from further afield to certain departments. Both hospitals operate with different billing structures. The small hospital works with DRG-based compensation structures for appraisals, for instance, something which the large hospital cannot afford to do because it has a different structure. In the end, the cooperation has ensured a minimum provision of basic services in the small hospital, whilst special interventions or intensive therapy were transferred to the large hospital.

 After such intensive therapy the patients were transferred to the small, regional hospital. The conclusion: The large hospital gets some relief of the too tight hospital stays, the regional hospital takes over aftercare and brings patients closer to their families – and the cooperation has positive effects for both hospitals in terms of DRG billing.

 © Dr. Vasco Luis Jose de Mello, CEO of Quiron Hospital

 ‘Investment strategies and financing solutions in health-care projects’

 Vasco Luis Jose de Mello will deal with the question: What new approaches are available for hospital managers and hospital groups to face current investment and its financing by the large hospitals.

 He will focus on two key issues – how to minimise investment needs and how to optimise financing solutions – with an actual perspective from a company with the biggest infrastructure plan in Spain in the last few years.

 Session 1 – Management

 Stefan Furtmüller MA, Manager of Contrast Management-Consulting

 ‘What makes a hospital successful?’

 Dr. Wilhelm Manhof, CEO of Wiener Krankenanstalten Verband ‘Changes in Viennese hospital structure’

 Leonardo La Pietra, CEO of the European Institute of Oncology ‘Accreditation and standards of excellence in Europe’

 Session 2 – Management

 Dr Marco Marchetti, Medical Director Unità di valutazione della tecnologia ‘The impact of IT on the healthcare system and organisation’

 Dr Pierre Thopet, Director of Arras Hospital ‘Changing medical and organisational processes through IT’

 Dr Hanna Pohjonen, Healthcare IT Consultant, Rosalécordy ‘Enablers for teleradiology’

 Session 3 – Financing

 Vasco Luis Jose de Mello, CEO of Quiron Hospital ‘Investment strategies and financing solutions in health-care projects’

 Andre Hoppen: When it comes to financing
US ONCOLOGY EXPERTISE TO SPREAD GLOBALLY

According to the American Cancer Society’s first Global Cancer Facts & Figures report there will be 27 million new cancer cases and 17.5 million cancer deaths globally in 2018 ‘due to the growth and aging of the population’ as well as lifestyles. Sadly, the lack of access to medical care is one reason for the gap in cancer survival between economically developed nations and developing countries, the report adds.

New cancer centres to be set up internationally by the University of Pittsburgh Medical Center (UPMC) in a partnership with GE Healthcare could help to alleviate pressures from healthcare providers within such areas. Their aim is to combine UPMC’s strength in developing and operating oncology centres that offer advanced diagnosis and radiotherapy treatments close to patients’ homes, and GE’s expertise in the provision of the necessary medical equipment.

UPMC already operates one of the largest cancer programmes in the USA, serving 38,000 newly diagnosed patients annually in over 40 centres in western Pennsylvania, and also runs two cancer centres in Ireland.

GE Healthcare will conduct assessments to determine which markets are most appropriate for cancer centres. Key factors will include the availability of a suitable local partner, regulatory requirements and patient volumes. Once a market is selected, UPMC will negotiate definitive agreements for the construction, ownership and operation of those centres.

Meike Lerner of European Hospitals, asked Charles E Bogosta, Executive Vice President University of Pittsburgh Medical Centre (UPMC), President, International and Commercial Services Division, and Jim Torres, General Manager, Global Funding Operations, GE Healthcare, about the background and aims of the project.

‘About a year ago, GE and UPMC came together to tackle a common problem: to improve the level of cancer care around the world,’ Charles Bogosta explained. ‘We immediately came up with a business structure. Our aim is to establish at least 25 cancer centres internationally within the next 10 years. In these, we’d like to provide the opportunity of high-quality cancer care that we offer in the US and Ireland. UPMC would lead the management side and the development of clinical protocols and pathways.’

Described their collaboration as a ‘win-win’ situation, Jim Torres explained: a win for UPMC as the clinical operator and a win for the countries where the new centres will be established. ‘UPMC will bring best practice clinical knowledge and GE the state-of-the-art medical diagnostic technologies. Together we can bring solutions for a level of quality of care that otherwise wouldn’t be possible.’

The partnership is a continuation of a 20-year relationship between GE and UPMC, Charles Bogosta pointed out. In Western Pennsylvania, where we planned 14 new cancer centres, GE provided all the technologies they currently use. So it was natural to take the relationship overseas, as we did in Ireland. Now we’ve formalized that and are leveraging GE’s market intelligence and international expertise. This is very complementary.’

90% of oncological care occurs in smaller communities, Charles Bogosta pointed out. ‘Our model is to settle the centres in these. Going into several countries, we’ve found great interest in this specific concept – every country in the world could be a candidate for this. It has to be customized wherever we go. As yet, we just don’t know whether we will place one or more centres in a country; discussions with the countries are very preliminary right now.’

Speaking of project financing, Charles Bogosta said this will mainly be handled by their local partners – i.e. hospital companies and governments. ‘With the current economic situation, things are going a bit slower than in other times. But so far, discussions with our partners are very optimistic. Oncology is targeted as a very high priority in every country.’

Asked whether the centres will be centrally linked, he explained that, although they will be local, each will be able to make the most of its international background and share education and research. ‘We already have many centralised processes that will bring efficiency to all these locations.’

Finally, Jim Torres added: ‘This project is going along with our strategy for globalization and becoming local in the global markets. GE Healthcare is already in over a hundred countries, so we have a strong understanding of local markets, know the key players, and can provide that intelligence to UPMC and find the right locations and partners. GE is a global player in providing healthcare solutions; we have a broad spectrum of products, so we provide the global footprint – the healthcare solutions – whilst UPMC brings the clinical expertise.’
A study carried out this year by the VHitG e.V. (a German association of IT solutions providers for healthcare) produced the first comprehensive market analysis of systems installed in hospitals, along with an analysis of the use of IT through the subjective appraisals of users. The objective of the study was to determine the trends, focus and requirements of users.

Based on a differentiated evaluation of IT used in the hospital from the perspective of three important groups of decision-makers (106 commercial, 167 medical and 206 IT leaders) the potential, requirements and obstacles in IT use, from users’ viewpoints, were examined. Additionally, the future requirements for IT leaders were investigated.

Study examines the benefits and shortcomings of the use of IT in healthcare

A study carried out this year by the VHitG e.V. (a German association of IT solutions providers for healthcare) produced the first comprehensive market analysis of systems installed in hospitals, along with an analysis of the use of IT through the subjective appraisals of users. The objective of the study was to determine the trends, focus and requirements of users.

Based on a differentiated evaluation of IT used in the hospital from the perspective of three important groups of decision-makers (106 commercial, 167 medical and 206 IT leaders) the potential, requirements and obstacles in IT use, from users’ viewpoints, were examined. Additionally, the future requirements for IT leaders were investigated.

The study results show that users viewed the IT contribution as essential or positive. In fact, it is considered so valuable that the topic of IT is typically not just approached purely from a cost perspective. Moreover, there is agreement that IT solutions are essential without IT. To the contrary, the IT and medical decision makers agree that, to realise new and profitable business models for their hospitals, IT is necessary. In this context they criticise the lack of networking facilities with the outside world and the insufficient provision of software training. The biggest potential for IT use is considered to be immediate data availability. Further opportunities are seen in particular in knowledge-based systems, the transparency of the invoicing and accounting structure and support for management decisions. As yet there is little evidence of the successful networking of IT solutions in clinical systems and in the implementation of new business processes.

Another, major insight from the study concerns the role of the head of IT which is due to undergo major change. The IT head of the future will soon contribute to an organisation’s financial results; be involved in the hospital’s strategy and will need to gain knowledge of clinical processes to optimise comprehensively the hospital processes.

From the association’s point of view, among the essential conclusions in the publication ‘Pens are the backbone of IT’ is the contribution to workflow support, set against the background of a low distillation of these workflow systems, which was clearly evident. This demonstrates an important potential to increase the IT contribution significantly. On the other hand, a lack of interfaces is seen as an obstacle. The association sees potential here not only in education for end users, but also in the support of integration and standardisation.

The investigation looked at VHitG member companies, whose products are used in 90% of German hospitals, and specifically at the number of IT solutions installed in 2007 in all 2,093 German hospitals.

Based on a differentiated evaluation of IT solutions installed in 45 segments, the study shows that most hospitals use solutions from different suppliers, and the HIS is not the only system they use. The study also investigates whether the software had been developed by the providers themselves, or whether they had merely installed third party products, or whether they were just the retailer. For quality assurance, the VHitG study was monitored by two independent organisations: Munich Technical University and Consultive Marketing & Industrieberatung Gmbh.

The ‘usability’ obstacle raises serious alarm bells, says the study. This subject includes a broad range of technical and ergonomic aspects. Thus VHitG is considering a follow-up study in 2009, in which the focus on usability will increase.

Security – The laptop will not work away from the hospital, data is encrypted and stored web-based so there is no data stored directly on the laptop.

Future potential – A next step is to take electronic referrals form GP surgeries and consultants within the Trust. The hospital reception also has a touch-screen computer check-in system where patients can register, therefore a lot of staff are prepared for their arrival at the relevant department.

A new IT system, designed to improve the efficiency and effectiveness of the therapy department at the Royal Orthopaedic Hospital (ROH) NHS Foundation Trust in Birmingham, is reported to have shown clear benefits for therapists, managers and patients.

Wireless technology enables the therapists to use laptops or tablet PCs during their rounds. Named TIARA, the new system gives clinicians rapid, easy access to full patient histories and allows details of assessments and interventions to be recorded onto the system.

As one of the busiest orthopaedic centres in Europe, the ROH Trust provides elective surgery to the population of Birmingham and provides a spinal service to the West Midlands. About 65,000 out-patients are seen annually, with 13,000 patients treated as in-patients or day cases.

In terms of therapy services the hospital offers in- and out-patient services, including physiotherapy and occupational therapy, rehabilitation and sports medicine and has a busy hydrotherapy service.

TIARA Therapy Manager Nikki Mason explained that TIARA replaces three previous systems that were incompatible. Since the system went live last April, implementation has been smooth and it has been used for appointments, registration and collection of statistics and auditing patients’ records. They now have full electronic patient records for inpatient physiotherapy, inpatient occupational therapy and outpatient physiotherapy,” she said. However, we do not have the system for hydrotherapy because of problems with having laptops in a water environment, we are looking at ways to resolve that.

Since its introduction, the new IT system for therapists has made significant improvements and seen hand-written notes phased out. It has also helped managers with statistical data, noted in managing patient flow and seen physiotherapists spend less time on administration. ‘We have a better idea of waiting times and can manage our waiting lists more effectively,’ Nikki Mason added. ‘From the physiotherapist’s perspective there are some patients with more complex needs that cover several areas. Instead of having separate notes in those different areas, the notes are on the laptop and we can see them straight away.’ The therapist can move between patients in wards or in consulting rooms, carrying no documents, only the laptop, and clinical records can be viewed by multiple users with appropriate access.

A new system can detail patient attendance, highlighting for example which patients are poor attendees, which patients are more likely to identify those patients that are more dedicated to their treatment’, Nikki Mason explained. Data collection and storage is also more formatted and standardised. The system is a lot more auditable and helps us move towards improved evidence-based practice. Ultimately, the patient is receiving an audited, quality service and it is helping reduce waiting times.”

A new IT system, designed to improve the efficiency and effectiveness of the therapy department at the Royal Orthopaedic Hospital (ROH) NHS Foundation Trust in Birmingham, is reported to have shown clear benefits for therapists, managers and patients.

Wireless technology enables the therapists to use laptops or tablet PCs during their rounds. Named TIARA, the new system gives clinicians rapid, easy access to full patient histories and allows details of assessments and interventions to be recorded onto the system.

As one of the busiest orthopaedic centres in Europe, the ROH Trust provides elective surgery to the population of Birmingham and provides a spinal service to the West Midlands. About 65,000 out-patients are seen annually, with 13,000 patients treated as in-patients or day cases.

In terms of therapy services the hospital offers in- and out-patient services, including physiotherapy and occupational therapy, rehabilitation and sports medicine and has a busy hydrotherapy service.

TIARA Therapy Manager Nikki Mason explained that TIARA replaces three previous systems that were incompatible. Since the system went live last April, implementation has been smooth and it has been used for appointments, registration and collection of statistics and auditing patients’ records. They now have full electronic patient records for inpatient physiotherapy, inpatient occupational therapy and outpatient physiotherapy,” she said. However, we do not have the system for hydrotherapy because of problems with having laptops in a water environment, we are looking at ways to resolve that.

Since its introduction, the new IT system for therapists has made significant improvements and seen hand-written notes phased out. It has also helped managers with statistical data, noted in managing patient flow and seen physiotherapists spend less time on administration. ‘We have a better idea of waiting times and can manage our waiting lists more effectively,’ Nikki Mason added. ‘From the physiotherapist’s perspective there are some patients with more complex needs that cover several areas. Instead of having separate notes in those different areas, the notes are on the laptop and we can see them straight away.’ The therapist can move between patients in wards or in consulting rooms, carrying no documents, only the laptop, and clinical records can be viewed by multiple users with appropriate access.

A new system can detail patient attendance, highlighting for example which patients are poor attendees, which patients are more likely to identify those patients that are more dedicated to their treatment’, Nikki Mason explained. Data collection and storage is also more formatted and standardised. The system is a lot more auditable and helps us move towards improved evidence-based practice. Ultimately, the patient is receiving an audited, quality service and it is helping reduce waiting times.”

A new IT system, designed to improve the efficiency and effectiveness of the therapy department at the Royal Orthopaedic Hospital (ROH) NHS Foundation Trust in Birmingham, is reported to have shown clear benefits for therapists, managers and patients.

Wireless technology enables the therapists to use laptops or tablet PCs during their rounds. Named TIARA, the new system gives clinicians rapid, easy access to full patient histories and allows details of assessments and interventions to be recorded onto the system.

As one of the busiest orthopaedic centres in Europe, the ROH Trust provides elective surgery to the population of Birmingham and provides a spinal service to the West Midlands. About 65,000 out-patients are seen annually, with 13,000 patients treated as in-patients or day cases.

In terms of therapy services the hospital offers in- and out-patient services, including physiotherapy and occupational therapy, rehabilitation and sports medicine and has a busy hydrotherapy service.

TIARA Therapy Manager Nikki Mason explained that TIARA replaces three previous systems that were incompatible. Since the system went live last April, implementation has been smooth and it has been used for appointments, registration and collection of statistics and auditing patients’ records. They now have full electronic patient records for inpatient physiotherapy, inpatient occupational therapy and outpatient physiotherapy,“ she said. However, we do not have the system for hydrotherapy because of problems with having laptops in a water environment, we are looking at ways to resolve that.

Since its introduction, the new IT system for therapists has made significant improvements and seen hand-written notes phased out. It has also helped managers with statistical data, noted in managing patient flow and seen physiotherapists spend less time on administration. ‘We have a better idea of waiting times and can manage our waiting lists more effectively,’ Nikki Mason added. ‘From the physiotherapist’s perspective there are some patients with more complex needs that cover several areas. Instead of having separate notes in those different areas, the notes are on the laptop and we can see them straight away.’ The therapist can move between patients in wards or in consulting rooms, carrying no documents, only the laptop, and clinical records can be viewed by multiple users with appropriate access.

A new system can detail patient attendance, highlighting for example which patients are poor attendees, which patients are more likely to identify those patients that are more dedicated to their treatment’, Nikki Mason explained. Data collection and storage is also more formatted and standardised. The system is a lot more auditable and helps us move towards improved evidence-based practice. Ultimately, the patient is receiving an audited, quality service and it is helping reduce waiting times.”
eFA project gains accolades in Connectathon

The first Connectathon of ‘eFA’, a hospital-driven German electronic patient record (EPR) project was considered a success by health IT providers and hospital representatives. During the Berlin event, Siemens, iSoft, and Ispro received certificates for implementing basic eFA functionalities in their connected care solutions, writes Philipp Grätz von Grätz.

Initiated by private hospital chains such as Asklepios and Röhn, and backed by the German Hospital Association (DKG), the eFA project is widely considered one of the most important IT standardisation projects in German healthcare. Under the eFA umbrella, the Berlin-based Fraunhofer ISST has been working since 2007 on technical specifications for an EPR with decentralised data storage to be deployed in regional and supra-regional connected care scenarios. In Germany, because this type of EPR is not a life-long record but records only a specific treatment, it is referred to an ‘electronic case record’ (elektronische Fallakte).

Pilot projects of eFA at four hospital chains and another eight individual hospitals have been running for more than a year. Following the Berlin Connectathon, eFA is bound to leave the pilot stage: ‘This was an important step towards commercial products that are available for all hospitals as off the shelf solutions,’ said ISST-project manager Dr Jörg Caumann.

The Connectathon provided three scenarios to test the solutions live and in public. All three solutions that entered the race – iSoft’s Lorenzo, Siemens’ Soarian Integrated Care, and Ispro’s Jesaja.net – were successful in the scenarios ‘eFA client compatibility’ and ‘eFA services compatibility’. The former means that it is possible to access and edit data in electronic case records of competing providers via an eFA client. eFA services compatibility means that it is also possible to use eFA-related services, for example a search function.

Only the Siemens product received a certificate for the third scenario ‘eFA peer to peer compatibility’, which means that the system can build up regional networks with the electronic case records of other providers. This is essential, because otherwise a doctor in private practice who wants to communicate electronically with different hospitals would have to use different portal solutions to access different case records.

All in all, hospital representatives were quite satisfied with what they saw in Berlin, and announced that they will implement the current eFA specification 1.2 as soon as possible. ‘At Asklepios we will enter the national rollout at our hospitals beginning in April 2009,’ said Dr Silke Haferkamp of UKA. ‘At Röhn we will finish the eFA rollout in our ten hospitals beginning in April 2009, and will add another twenty hospitals without SAP in 2009.’ Röhn is running eFA pilots based on Soarian Integrated Care in Leipzig, Frankfurt/Oder and Hildesheim. Aachen University Hospital (UKA), which uses iSoft’s Lorenzo, has already implemented two eFA projects with cooperating hospitals and, next year, will start a third with cardiologists in the Aachen region. ‘We are also envisioning cooperation with Maastricht hospital, based on eFA standards,’ said Dr Silke Haferkamp of UKA. However, there is presently no time scale for this.

To make the eFA initiative sustainable, hospitals and hospital chains are now launching a non-profit organisation – the eFA Association (eFA-Veren). Membership fees will be used to update the eFA specification and make it compatible with the German national health IT infrastructure, including its smartcard components. ‘Our ambitious goal is to create a nationwide standard in the end,’ said Uwe Pöttgen, who also proudly reminded the guests that the hospitals have invested a six digit amount of money so far into the development of the eFA standard, and that this standard nonetheless remains freely accessible for anyone.
ECR 2009

RADIOLOGY/NUCLEAR MEDICINE

Carestream Health plans to demonstrate its newest, low-cost, digital imaging and IT solutions at ECR 2009 (European Congress of Radiology). The range includes:

- First Wireless, Cassette-Size DR Detector
- New Biograph inCT
- Hot on the heels of cardiac catheterisation
- Coronary artery evaluation using 64-Row Multidetector Computed Tomography Angiography
- The Carestream Health RIS/PACS architecture can synchronise disparate PACS. Images and reports are automatically sent back to the original PACS or RIS for local storage and distribution.

First Wireless, Cassette-Size DR Detector

The company has announced that it will also demonstrate the industry’s first wireless, cassette-size DR detector that can be used with existing wall stand or table-based Buckys. The Carestream DRX-1 System is expected to be available during the first quarter of 2009. It incorporates a console and a wireless 35 x 43 cm (14 x 17 inch) cassette-size detector that provides a rapid, affordable conversion for users of radiographic film or computed radiography systems. It requires no modifications to existing room and speed equipment, resulting in very low installation costs. The DRX-1 system delivers high-quality preview images in fewer than five seconds, which significantly improves productivity, even for users of computed radiography (CR) systems.

Hot on the heels of cardiac catheterisation

Carestream reports that imaging service providers have seen advance previews of a new DR detector, complimenting its latest generation PET-CT, the Biograph Molecular CT. This new platform from Carestream will become available worldwide in spring 2009. The Web-based RIS employs a Microsoft®-HIT architecture with the flexibility of a thin-client solution, Carestream explains. ‘This architecture will allow users to refine features to workflow and speed implementation. It also will deliver secure remote access for physicians, enable greater collaboration using DICOM 3.0 technology, and offer an optional portal that allows patient scheduling within parameters set by healthcare providers.’

The latest Carestream Health IT for radiology will go on show

At Medica 2008, Siemens introduced its latest generation PET-CT, the Biograph inCT. During a European Hospital of the Year (HHOY) meeting in September, Markus Lusser, worldwide Head of Distribution and Marketing for Molecular Imaging at Siemens, outlined the advantages of the new hybrid system, which aims to extend the spectrum of medical imaging to ‘molecular computed tomography’. 

I wouldn’t use the word forced, because PET-CT is already an established modality. It means that nuclear medicine specialists and radiologists jointly establish the diagnostic and patient in nuclear medicine, typically cannot evaluate and diagnose the results of a CT examination, and a radiologist cannot evaluate all PET results, so we are supporting closer cooperation with our CT.

But this has a significant bias towards radiology. Some hospitals in Germany have nuclear medicine departments and professorships. To use the new mCT effectively, radiology and nuclear medicine will now have to work together in one department.

As the manufacturers, we don’t think so much in terms of the structural categories but look at issues from a clinical point of view. Moving away from the situation in Germany, internationally there is a strong trend towards integrated imaging – and we aren’t interested in promoting one group to the detriment of another. Hybrid systems, such as molecular CT, need the expertise of both groups if the potential of ‘molecular imaging’ is to be fully exploited. For example, this type of CT can actually be used for organ perfusion. However, that requires a radiologist’s expertise in the necessary technological skills. If you then superimpose the result with that of a PET examination, as this is where nuclear medicine comes into play – you gain a third type of measurement, at no extra expense, which can be relevant for fast and precise diagnosis. But the crucial point is that about 95% of all PET-CT users do not use CT for advanced examination protocols, such as contrast-CT.

So they are only driving your luxury limousine, not the van.

Unsurprisingly, about 75% of patients stated they would prefer fast and painless CT for future examinations. According to the radiologist only a third of catheterisations are actually combined with therapy, i.e. the vessels are only widened in about a third of cases. In all other cases, catheterisation is only used for clarification.

Seeking a low-cost diagnostic procedure

For some time, radiologists have been looking for a way to assess reliably the condition of coronary arteries and vessels, whilst avoiding the risk of complications in doing this via angiography. CT has proved to be the procedure with the biggest potential to take over from catheterisation, as the international team carrying out the CorE-64 study discovered.

Some 400 patients with diagnosed or suspected coronary heart disease underwent a two-fold examination approved by the Federal Office for Radiation Protection, employing catheterisation and CT. ‘We were able to detect stenosis requiring treatment using CT with the same precision as with the cardiac catheter, which means non-invasive CT examination that is free of complications is equally capable of identification as catheterisation,’ Dr Deery concluded.

‘64-slice CT is currently the most promising procedure for non-invasive coronary angiography. However, in a direct, multi-centre comparison with conventional coronary angiography limitations are also evident. The sensitivity of 85% and the negative predictive value of 83% are lower than in previous single-centre studies,’ he explained. ‘This means that, with large-scale use of 64-slice CT for coronary angiography, the realistic results for diagnostic precision are lower in previous examinations (with about a 95% sensitivity) which were not multi-centre. Nevertheless, and this is clearly demonstrated by our first international, multi-centre study, the diagnostic value of CT is higher than with all other non-invasive procedures to detect coronary artery stenosis. Moreover, CT was on a par with conventional coronary angiography in the prediction of the necessity of revascularisation.’

In terms of assessing for which risk score cardiac catheterisation and CT are appropriate Dr Deery added: ‘Non-invasive cardiac CT could be a sensible “filter” prior to cardiac catheterisation for patients with low to medium probability (20-60% pre-test probability) of coronary artery disease. On the contrary, these are patients with asymptomatic complaints or existing, conflicting results of other examinations. Patients with typical, symptomatic problems should definitely still be examined via cardiac catheterisation and, if necessary, revascularisation. On the other hand, it has been shown that there is no improvement in outcomes for patients, even in asymptomatic patients, which means that CT does not seem to be a sensible approach for these patients. As Rita F. Fiedberg writes in her article about our study in the New England Journal of Medicine, there is a need for more randomised – and ideally publicly sponsored – studies to further analyse the benefits of low-cost, non-invasive CT prior to the large-scale use of cardiac CT.’

The CorE-64 results were first published in the New England Journal of Medicine (2009; 359: 2134-36).
A Chinese company firmly determined to expand its global presence

Shenzhen Landwind Industry Co. Ltd. (Landwind) began operations as a distributor for Siemens and Philips ultrasound products in mainland China and later commenced production of its own black and white ultrasound equipment on an Original Design Manufacture (ODM) basis for HONDA in 2004. Today, Landwind manufactures ultrasound diagnostic scanners and other medical imaging systems, as well as hospital information management systems.

The company’s three ultrasound imaging systems – C Series, F Series and Veterinary – are far more advanced than the firm’s initial product. Elegantly designed and with foldaway backlit keyboards, their features include a 10in high-resolution monitor or LCD monitor; dynamic focusing and aperture imaging; multi-frequency, high density probes; a full range of measurement and calculation software packages; display modes B, B/B, M; cine review; storage capacity, and much else.

This year, the company presented its ultrasound equipment at MEDICA in Germany and the RSNA in Chicago. Landwind’s Vice President, Wang Guozhong, was present at both events. When in Dusseldorf, he met with Daniela Zimmermann (European Hospital) to talk about the firm’s product and aims. ‘Generally speaking, we just provide good products at affordable prices,’ he explained. ‘For ultrasound and X-ray technology we have our own R&D capabilities. The products have the same features as others on the market, because all the products almost do the same thing; but, compared with competitors’ products, our performance is very good, the image quality and powerful clinical functions are very good and very powerful. And initially we will take the localization strategy to expand our business in European countries.

Landwind’s colour Doppler ultrasound equipment – MIRROR 2 – is designed on all-digital architecture and delivers outstanding performance and smooth workflow to meet different needs of patients and clinicians. It incorporates the latest image processing technology, such as Multi-beam Parallel imaging, Superior Aperture Filter, and Magic Focus, and provides versatile clinical applications, from abdomen, OB/GYN and plays a part in ergonomic design to relieve doctors from fatigue.

For X-ray, we produce the mobile DR, and CR, and the all-digital DR, and a hanging-bracket for the DR. These are also in the medium price range,’ Wang Guozhong said.

Did the firm’s presence at MEDICA prove valuable? ‘It’s the best trade show for medical equipment in the world,’ he responded. ‘This is the fourth time our company has been here, and we’ve done very, very well in Hall 10. It’s a very good opportunity for us, and we want to enlarge our space next year, to be in the middle of the hall with our competitors.’

Brobach with the ticklish question of European and American reservations that Chinese firms may copy their products. Wang Guozhong counteracted that his company has only a 15-year history and that, ‘… for the R&D experience, and particularly for high-tech equipment, we want to do it ourselves. We learn from our competitors, but we need to have our own technologies, our own development. We learn from Philips or Siemens, but we don’t do the me-too products. We pay much more attention to our own R&D centre; just over 10% of our gross margin goes into that. In China we employ almost 700 people and our annual turnover is almost €100,000,000.

Landwind, playing a more and more important role in medical equipment provider international will be global and definitely expanding.

Shanghai Landwind Industry Co. Ltd. (Landwind) began operations as a distributor for Siemens and Philips ultrasound products in mainland China and later commenced production of its own black and white ultrasound equipment on an Original Design Manufacture (ODM) basis for HONDA in 2004. Today, Landwind manufactures ultrasound diagnostic scanners and other medical imaging systems, as well as hospital information management systems.

The company’s three ultrasound imaging systems – C Series, F Series and Veterinary – are far more advanced than the firm’s initial product. Elegantly designed and with foldaway backlit keyboards, their features include a 10in high-resolution monitor or LCD monitor; dynamic focusing and aperture imaging; multi-frequency, high density probes; a full range of measurement and calculation software packages; display modes B, B/B, M; cine review; storage capacity, and much else.

This year, the company presented its ultrasound equipment at MEDICA in Germany and the RSNA in Chicago. Landwind’s Vice President, Wang Guozhong, was present at both events. When in Dusseldorf, he met with Daniela Zimmermann (European Hospital) to talk about the firm’s product and aims. ‘Generally speaking, we just provide good products at affordable prices,’ he explained. ‘For ultrasound and X-ray technology we have our own R&D capabilities. The products have the same features as others on the market, because all the products almost do the same thing; but, compared with competitors’ products, our performance is very good, the image quality and powerful clinical functions are very good and very powerful. And initially we will take the localization strategy to expand our business in European countries.

Landwind’s colour Doppler ultrasound equipment – MIRROR 2 – is designed on all-digital architecture and delivers outstanding performance and smooth workflow to meet different needs of patients and clinicians. It incorporates the latest image processing technology, such as Multi-beam Parallel imaging, Superior Aperture Filter, and Magic Focus, and provides versatile clinical applications, from abdomen, OB/GYN and plays a part in ergonomic design to relieve doctors from fatigue.

For X-ray, we produce the mobile DR, and CR, and the all-digital DR, and a hanging-bracket for the DR. These are also in the medium price range,’ Wang Guozhong said.

Did the firm’s presence at MEDICA prove valuable? ‘It’s the best trade show for medical equipment in the world,’ he responded. ‘This is the fourth time our company has been here, and we’ve done very, very well in Hall 10. It’s a very good opportunity for us, and we want to enlarge our space next year, to be in the middle of the hall with our competitors.’

Brobach with the ticklish question of European and American reservations that Chinese firms may copy their products. Wang Guozhong counteracted that his company has only a 15-year history and that, ‘… for the R&D experience, and particularly for high-tech equipment, we want to do it ourselves. We learn from our competitors, but we need to have our own technologies, our own development. We learn from Philips or Siemens, but we don’t do the me-too products. We pay much more attention to our own R&D centre; just over 10% of our gross margin goes into that. In China we employ almost 700 people and our annual turnover is almost €100,000,000.

Landwind, playing a more and more important role in medical equipment provider international will be global and definitely expanding.
Real-time Tissue Elastography
A bridge between mammography and biopsy

Radiologists are paying increasing attention to ultrasound real time tissue elastography (HI-RTE). Earlier this year, at their annual meeting, the Austrian, Swiss and German Ultrasound Societies (ÖGUM, SGUM, DEGUM), highlighted the effectiveness of the method in differentiating soft from stiff tissue, i.e. healthy areas from tumours, a key differentiation in breast cancer diagnosis. Meeting with Ellison Bibby, European Product Manager for Radiology Ultrasound with Hitachi Medical Systems, Daniela Zimmermann, of European Hospital, asked for an update on the use of sonoelastography in this area.

The breast is the best-known example of how patients are taught to palpate for tumours. A tumour is stiff compared to the surrounding tissue, and that's exactly what real-time tissue elastography images,' Ellison Bibby explained. 'The stiffness relative to the surrounding tissue, and that's exactly what real-time tissue elastography images, Ellison Bibby explained. ‘The stiff-tissue, and that's exactly what real-time tissue elastography images, Ellison Bibby explained. ‘The stiff-tissue, and that's exactly what real-time tissue elastography images.'

HI-RTE is like a 'palpation image', that looks at new additional information – how the tissues react to stress, which is related to tissue elasticity. The tissues are gently compressed by the transducer in a repetitive manner to distort the tissue. The 'echo data from one image frame is compared to the next to build up a pattern of tissue displacement. Where there are differences in tissue stiffness, the amount of displacement varies – normal soft tissues will show greater distortion than stiffer tissues.'

asked for an update on the use of sonoelastography in this area

The tissues are gently compressed by the transducer in a repetitive manner to distort the tissue. The 'echo data from one image frame is compared to the next to build up a pattern of tissue displacement. Where there are differences in tissue stiffness, the amount of displacement varies – normal soft tissues will show greater distortion than stiffer tissues.'

asked for an update on the use of sonoelastography in this area

The tissues are gently compressed by the transducer in a repetitive manner to distort the tissue. The 'echo data from one image frame is compared to the next to build up a pattern of tissue displacement. Where there are differences in tissue stiffness, the amount of displacement varies – normal soft tissues will show greater distortion than stiffer tissues.'

asked for an update on the use of sonoelastography in this area

The tissues are gently compressed by the transducer in a repetitive manner to distort the tissue. The 'echo data from one image frame is compared to the next to build up a pattern of tissue displacement. Where there are differences in tissue stiffness, the amount of displacement varies – normal soft tissues will show greater distortion than stiffer tissues.'

asked for an update on the use of sonoelastography in this area

The tissues are gently compressed by the transducer in a repetitive manner to distort the tissue. The 'echo data from one image frame is compared to the next to build up a pattern of tissue displacement. Where there are differences in tissue stiffness, the amount of displacement varies – normal soft tissues will show greater distortion than stiffer tissues.'

asked for an update on the use of sonoelastography in this area

The tissues are gently compressed by the transducer in a repetitive manner to distort the tissue. The 'echo data from one image frame is compared to the next to build up a pattern of tissue displacement. Where there are differences in tissue stiffness, the amount of displacement varies – normal soft tissues will show greater distortion than stiffer tissues.'

asked for an update on the use of sonoelastography in this area

The tissues are gently compressed by the transducer in a repetitive manner to distort the tissue. The 'echo data from one image frame is compared to the next to build up a pattern of tissue displacement. Where there are differences in tissue stiffness, the amount of displacement varies – normal soft tissues will show greater distortion than stiffer tissues.'

asked for an update on the use of sonoelastography in this area

The tissues are gently compressed by the transducer in a repetitive manner to distort the tissue. The 'echo data from one image frame is compared to the next to build up a pattern of tissue displacement. Where there are differences in tissue stiffness, the amount of displacement varies – normal soft tissues will show greater distortion than stiffer tissues.'

asked for an update on the use of sonoelastography in this area

The tissues are gently compressed by the transducer in a repetitive manner to distort the tissue. The 'echo data from one image frame is compared to the next to build up a pattern of tissue displacement. Where there are differences in tissue stiffness, the amount of displacement varies – normal soft tissues will show greater distortion than stiffer tissues.'

asked for an update on the use of sonoelastography in this area

The tissues are gently compressed by the transducer in a repetitive manner to distort the tissue. The 'echo data from one image frame is compared to the next to build up a pattern of tissue displacement. Where there are differences in tissue stiffness, the amount of displacement varies – normal soft tissues will show greater distortion than stiffer tissues.'
The popularity of LED lighting units is inevitably increasing because LED light is infrared-free and cool, creating good work conditions for surgeons, and minimizing the danger of tissue dehydration. In addition, the nearly limitless service life of LEDs lowers maintenance costs and ensures safe, reliable work, the operating theatre equipment and surgical lighting specialist Berchtold explains.

This year, the firm introduced the E-Generation Chromophare surgical lights with gas discharge and halogen technology, and has added new LED models. Berchtold explains that the light ensures optimum differentiation of tissue types while simultaneously illuminated, shadow-free light field under all working conditions. And, our ‘Spectronixx’ colour optimization filter puts the finishing touches to a light that remains homogeneous at every type of colour temperature. Moreover, the infrared-free light ensures a cool light field even during surgical procedures that may last for several hours. Higher temperatures near the surgeon’s head and shoulders are reduced to a minimum – as with all E-Series lights from Berchtold.

In addition, if needed, the colour temperature can be adjusted freely over a range of 3,600 to 5,000 Kelvin. ‘Berchtold’s special Colour Select feature brings optimum visibility to colour contrasts. The flat, self-contained design of the surgical light ensures easy, hygienic cleaning with a minimum of turbulence to laminar air flow.’ A specially developed sensor system in the handgrips allows repositioning of the lighting unit without changing the light field adjustment. Adjustment of the light field is carried out purely electronically to eliminate mechanical aberrations,’ Berchtold points out. ‘Operating theatre personnel have a choice of ergonomic, intuitive adjustment directly on the lighting unit itself or via a wall-mounted control panel. Easy-to-understand symbols eliminate complications in turning the light on and off, or adjusting parameters such as the light field, lighting intensity, and colour temperatures. The accompanying, downward-pointing GuideLite for orientation can also be managed with either of the control panels. The GuideLite offers c. 10% residual light and serves to ensure visibility in the surroundings during endoscopic procedures.’

### Slow frozen liver successfully transplanted

Israel – A slow frozen pig’s liver has been thawed without damage and successfully transplanted into another pig, according to Israeli scientists (initial results published in Rejuvenation Research, followed by the journal New Scientist).

Working at the Agricultural Research Organisation in Bet-Dagan, the scientists used a much slower freezing system than usual. To reduce the formation of jagged damaging crystals in water inside the cells, they cooled the organ by just 0.3 degrees Celsius per minute. About an hour and a half later, the pig liver was fully frozen. It was then thawed immediately and transplanted into the other animal, and was reported to be in very good condition. Two hours later, after the recipient was killed, the transplanted liver was checked and found to have regained some signs of blood flow and was producing a bile-like liquid, indicating that some of its functions were working again.

However, it had been working in tandem with the existing liver, and only working for a couple of hours before the examination as to its function. Thus the research could not ascertain whether it could recover all of its functions to work independently and keep the animal alive.

If further experiments to test this are successful, the researchers hope that frozen organs could be banked for future transplants.
German pre-clinical and clinical trauma care of severely injured people enjoys an excellent reputation, partly due to the country’s intensive work in trauma surgery and related medical disciplines. Nevertheless, it should be pointed out that the current outcome of polytrauma care in Germany is extremely heterogeneous. Data collected by the Federal Statistics Bureau, released in 2002, indicate that the mortality rate among traffic accident victims varies greatly between the Federal States: e.g. 2.2% in Mecklenburg-Westphalia and 4.5% in Berlin. Moreover, data in the trauma register maintained by the German Society for Trauma Surgery (DGU: Deutscher Gesellschaft für Unfallchirurgie – DGU) show significant differences for individual hospitals regarding the mortality rate following severe trauma. These quality differences can be attributed to two primary causes:

- The catchment areas of the individual hospitals differ markedly in the Federal States: 4634 km² in Mecklenburg-Westphalia, as compared to 541 km² in North Rhine-Westphalia. Similar differences apply to the number of medical helicopter and the size of the regional road grid.
- The number of traumatology departments, organisation, staff availability, infrastructure and material resources of the hospitals participating in the register vary significantly.

In view of these differences, in 2004 the DGU launched the Traumatenetzwerk initiative, which aims to raise the quality of poly-trauma care, regional trauma networks, and to register the local trauma network structures between supraregional and regional trauma centres and basic trauma surgery care aimed to ensure that every seriously injured patient is taken to the shock room of a suitable or even certified hospital within a 30-minute drive from the accident site. The White Paper on trauma care for severely injured persons (Weissbuch der Schwerverletztenversorgung) published by the DGU in 2006, demands the following:

- Defined criteria for the admission of accident victims from the site to a trauma centre or facility offering basic trauma surgery.
- Implementation of harmonised staff of medical and organisational preconditions (e.g. shock room).
- Standardised treatment plans and transfer criteria for the early phases of trauma care for severely injured patients, according to the evidence-based DGU guidelines (e.g. DGU guideline S3).
- Implementation of medical qualifications by joint training programs (e.g. AMTS, ATLS, www.atls.de).
- Participation in external and internal quality assurance programmes and collection of current care figures based on the DGU trauma register (www-traumaregister.de).
- Implementation of telecommunication systems that enable participating hospitals to coordinate the further care path in or immediately after the acute treatment phase.

Currently, more than 500 hospitals, regional networks, and hospitals in Germany, which produce ESD knives. ‘There are certain preconditions for their use: intensive patient information, suitably or even in emergency surgery, appropriate and technically necessary sufficient training and an experienced operator,’ she adds.

In ESD, experienced endoscopists train surgeons to use the new instruments and ensure they can adequately handle complex lesion removal. The firm also supports the national ESD register, launched in October under the auspices of, among others, Dr. Fass’s department at Addioges Klinikum Barmbek and in partnership with the German Society for Gastroenterology (DGVS). The register aims to document the application of the ESD procedure to obtain information on outcomes. Data is being recorded on indication, complications and the therapy course for each patient. Within days of the announcement of the register in 2004, more than 120 German hospitals where ESD is currently being offered, had signed up, the company reports.

Endoscopic submucosal dissection (ESD)

High resolution endoscopy triggers new approaches to the detection and resection of early-stage carcinomas. The narrow Band Imaging and HDP/IV allows a significant magnification of the endoscopic image and increasingly detailed rendering of the mucous membrane. Lesions that were considered impossible to be correctly diagnosed by traditional endoscopy can be detected earlier. Endoscopic submucosal dissection (ESD) provides experienced endoscopists with a new technique to resect early gastric cancer without damaging the organ affected. This invasive surgery was only required to treat the early-stage tumours of the oesophagus or the stomach.

The decision about whether a malignant gastric tumour can be resected by ESD depends on the tumour’s size and surface area, explained Dr. Siegbert Palas, medical director of the gastroenterology department at Asklepios Klinikum Barmbek, Germany. ‘ESD is an option if the tumour of the oesophagus and the stomach affects only the lower mucosal layer or, in the case of a colon tumour, the lower submucosa.’

First, to mark the submucosa, a liquid is injected into it. Then insulation-tip diathermic knives – also known as ‘IT-knives, hook-knives of flex-knives – are used to cut the mucosa generously around the neoplasm. Finally, the submucosal tissue under the neoplasm is dissected. Thus, an organ-saving resection in performed by ESD ensures negative margins and local recurrence is reduced.

Through very promising results have been discussed: the procedure takes some time and is bleeding as well as perforation risk are still quite high. This holds true particularly for inexperienced users, explains Barbara Opaika, product manager for endotherapy instruments at Olympus Medical Systems, which produces ESD knives. ‘There are certain preconditions for their use: intensive patient information, sufficient training and an experienced operator,’ she adds.

In ESD workshops organised by Olympus to promote ESD, experienced endoscopists train surgeons to use the new instruments and ensure they can adequately handle complex lesion removal. The firm also supports the national ESD register, launched in October under the auspices of, among others, Dr. Fass’s department at Addioges Klinikum Barmbek and in partnership with the German Society for Gastroenterology (DGVS). The register aims to document the application of the ESD procedure to obtain information on outcomes. Data is being recorded on indication, complications and the therapy course for each patient. Within days of the announcement of the register in 2004, more than 120 German hospitals where ESD is currently being offered, had signed up, the company reports.

Arthroscopic surgery

Osteoarthritis of the knee is a degenerative disease that causes joint pain, stiffness and decreased function. Its frequency increases dramatically with aging populations. Treatment is multidisciplinary, combinations of pharmacological, physical therapy and/or surgery are most used for patients. Before the disease reaches the stage where a total replacement of the affected articulation, keyhole surgery is often performed. Using arthroscopy, lavage of the joint, removing fragments of cartilage and calcium deposits. Also surgical smoothing (debridement) of the articulation surfaces and osteophytes is undertaken, aiming to reduce synovitis and eliminate any mechanical obstruction.

Although widely practiced there is in fact little or no scientific evidence for any benefit from this procedure in osteoarthritis of the knee. In fact the results from a large-scale randomised, controlled trial published in 2002 showed no benefit of surgery (Massey TB, Danks AJ, Hallihan A, et al. A controlled trial of arthroscopic therapy for osteoarthritis of the knee. N Engl J Med 2002;346:1914-1921). The trial methodology was heavily criticised and arthroscopy continued to be routinely used.

Does it provide additional benefit for the osteoarthritic knee? by Jane McDouall

This September new results from Ontario (Canada) were published (Kirkley A, Birmingham T, B, Litschfield R, et al. A randomized trial of arthroscopic surgery for osteoarthritis of the knee. N Engl J Med 2006;355:1097-1107). This single-center, randomized, controlled trial of arthroscopic surgery was carried out in 118 patients with moderate to severe osteoarthritis of the knee. Patients were randomly assigned to surgical lavage and arthroscopic debridement, together with optimised physiotherapy and medication (which included anti-inflammatory agents or to physiotherapy and medication alone. Arthroscopic surgery was performed under general anaesthesia within six weeks of randomisation of the patient.

At two years follow-up, the primary outcome was the total Western Ontario and McMaster Universities Osteoarthritis index (WOMAC) score (range, 0 to 240); higher scores indicate more severe symptoms). While secondary outcomes included the Short Form-36 (SF-36) Physical Component Summary score (range, 0 to 100; higher scores indicate better quality of life).

Patients were assessed by a nurse, blinded to treatment, 3, 6, 12, 18, and 24 months from the start of treatment. Interestingly, it was only at the first three-month visit that the results from surgery were significantly better than those in the medical group (p=0.01). At the end of the study no difference was found between the two treatment groups: WOMAC scores were 38±7±64 in the arthroscopy group compared with 38±7±68 in the medical group (p=0.03). Different sub-group analyses also failed to find an advantage for surgical over medical treatment. Likewise surgery failed to show any improvement over medical treatment for quality of life and pain assessments (secondary end-points).

However, as in all trials these one has limitations, perhaps excluding those patients who have large meniscal (‘bucket handle’ tears), in whom arthroscopic surgery is considered an effective option, biased the results towards medical intervention.

Perhaps the answer is for rheumatologists to judge each case on its individual merits and surgery be proposed after careful consideration of the particular individual rather than as a routine practice for all.

The non-invasive resection of gastric tumours

The non-invasive technique of endoscopic submucosal dissection (ESD) provides experienced endoscopists with a new technique to resect early gastric cancer without damaging the organ affected. This invasive surgery is only required to treat the early-stage tumours of the oesophagus or the stomach.

The decision about whether a malignant gastric tumour can be resected by ESD depends on the tumour’s size and surface area, explained Dr. Siegbert Palas, medical director of the gastroenterology department at Asklepios Klinikum Barmbek, Germany. ‘ESD is an option if the tumour of the oesophagus and the stomach affects only the lower mucosal layer or, in the case of a colon tumour, the lower submucosa.’

First, to mark the submucosa, a liquid is injected into it. Then insulation-tip diathermic knives – also known as ‘IT-knives, hook-knives of flex-knives – are used to cut the mucosa generously around the neoplasm. Finally, the submucosal tissue under the neoplasm is dissected. Thus, an organ-saving resection in performed by ESD ensures negative margins and local recurrence is reduced.

Through very promising results have been discussed: the procedure takes some time and is bleeding as well as perforation risk are still quite high. This holds true particularly for inexperienced users, explains Barbara Opaika, product manager for endotherapy instruments at Olympus Medical Systems, which produces ESD knives. ‘There are certain preconditions for their use: intensive patient information, sufficient training and an experienced operator,’ she adds.

In ESD workshops organised by Olympus to promote ESD, experienced endoscopists train surgeons to use the new instruments and ensure they can adequately handle complex lesion removal. The firm also supports the national ESD register, launched in October under the auspices of, among others, Dr. Fass’s department at Addioges Klinikum Barmbek and in partnership with the German Society for Gastroenterology (DGVS). The register aims to document the application of the ESD procedure to obtain information on outcomes. Data is being recorded on indication, complications and the therapy course for each patient. Within days of the announcement of the register in 2004, more than 120 German hospitals where ESD is currently being offered, had signed up, the company reports.
Changing the way we live

Marcel van Kasteel MBA, is VP of Philips and CEO of Handheld Immunoassays, a Philips Incubator venture in Eindhoven, the Netherlands, which recently announced that, by the end of next year, the first device to test for drug abuse will be marketed that will make on the spot testing simple and quick for use by the police. Daniela Zimmermann asked him about the development and what makes it different from testing kits that are already available.

The incubator venture at which he works is one of several ventures set up by Philips to develop new and very different technologies in fields beyond its existing businesses, so that it can create new businesses.

The first partnership for Handheld Immunoassays is with the UK all-in-one drug testing firm Concateno. Under development is the first application of a new saliva-based drugs abuse product. ‘A few years ago, Philips Research started a magnetic biosensor research project, and this led to our group being set up to focus on developing it for handheld immunoassay platforms. Think about glucose testing at point of care, where you have a finger-prick of blood and test for glucose; with our device, sensitivity goes up to 600 million times more than a glucose measurement. So, the possibility is that, with this technology, you could measure all kinds of different proteins – in home settings as well as in ambulances, at hospital admissions departments and in intensive care. It’s lab testing outside the central lab.

This is not specifically Philips’ line of business, so we launched Magnotech Technology to take Philips into the world of point-of-care (POC) diagnostics. We are not the first to do this, but we are convinced we have something different in POC testing devices, because with this technology you only need a finger-prick of blood. We are looking for a solution within two minutes, and one offering ease of use, with no mixing of reagents or adding reagents, so that an untrained person could do it. At the moment, a heart attack patient is brought to hospital and monitored, and a blood sample is sent to the central lab. A very well-organized laboratory can send results back in 30-60 minutes – but the standard is about 60 minutes – and the patient is still lying there. Suppose you have a technology that can give results in two minutes, in an ambulance or admissions department. You could decide on the right treatment even before the patient is admitted.

The elderly with chronic diseases could also benefit from this type of technology, he pointed out. They would not need to visit a clinic for a blood test and results would be ready immediately, thus two visits would become unnecessary. ‘In the future, a patient could use this technology at home, take a finger-prick of blood, send the information over the Web or via a television (TV). Of course, it all depends on their age. Philips’ research shows that elderly people don’t like computers too much; they prefer friends. So Philips has a lot of home solutions, such as TV systems through which data can be transferred to the doctor, who looks at it and sends a recommendation to the patient, for example: You’re okay, go on with your medication, or Come continue on page 16.

Easy-to-use hand held immunoassays

The Magnotech technology is based on a cartridge, with built-in analyser and software. A drop of blood (or saliva) is put into the cartridge, filtered, and then passes through different areas that hold tiny amounts of different reagents. ‘It’s basically a test strip,’ Marcel van Kasteel explained. ‘Next, the cartridge is to be placed into the analyser, where the real reaction takes place. I think the key message is the potential this technology offers – ease of use, so that non-trained people could run it; speed, so you could get results in a couple of minutes; this opens the possibility for multi-tests with the same cartridge, also important for certain viral diseases when you’d like a combination of certain assays.’

Marcel van Kasteel MBA, is VP of Philips and CEO of Handheld Immunoassays, a Philips Incubator venture in Eindhoven, the Netherlands, which recently announced that, by the end of next year, the first device to test for drug abuse will be marketed that will make on the spot testing simple and quick for use by the police. Daniela Zimmermann asked him about the development and what makes it different from testing kits that are already available.
The overall quality of laboratory operations has traditionally been evaluated using a combination of three variables: analytical quality, timeliness (turnaround time) and operational efficiency.

One hospital that has succeeded on all three measures simultaneously is St. Mary's Hospital Centre (SMHC), a 414 bed acute-care bed, McGill-affiliated teaching hospital located in Montreal, Quebec, Canada.

In 1998, SMHC acquired a pre-analytical automation system from Beckman Coulter for its core laboratory. Over the next five years, as the hospital's sample volume continued to rise, the lab's pre-analytical system was gradually upgraded, finally to become, by the end of 2003, a Total Lab Automation (TLA) system, under the direction of Ralph Dadoun, PhD, MBA, Vice-President of Corporate and Support Services.

The results of this endeavor proved to be profound – and continue to deliver prominent benefits today. Not only did the laboratory witness improved cost efficiency and quality of services, it also achieved a lower risk of human errors. Benefits include:

- **Higher Quality Patient Care**: SMHC’s pre-analytical automation system improved the lab’s TAT (from the lab’s receipt of the specimen to the validation of the result) by more than 50%, (90 percent of results are delivered in under 3 hours). More importantly, the automation system drastically reduced the variability of results, which improved reliability and physician satisfaction.
- **Fewer Manual Manipulations**: Automation in the laboratory, as in any other field, drastically reduces the number of manual steps needed to obtain a test result, and therefore reduces labour. At SMHC, the number of manipulations per sample dropped from 12 to two. On a typical day this represents a reduction in thousands of manual steps. Furthermore, fewer manual manipulations equates to a lower risk of exposure to blood-borne pathogens, thus increasing staff safety.
- **Better Use of Lab Space**: By implementing a core lab, coupled with automation, the lab reduced its lab space while doubling its volume of operations has traditionally been evaluated using a combination of three variables: analytical quality, timeliness (turnaround time) and operational efficiency.

**Increased Productivity and Cost Efficiency**

SMHC's overall productivity – the number of reportable results per hour worked – improved by 110% and was achieved during a 48% increase in volume and a 27% decrease in worked hours (16 FTEs).

**Improved Reliability and Physician Satisfaction**

SMHC achieved a pay-back period within three years, as the hospital's overall productivity – the number of reportable results per hour worked – improved by 106% and was achieved during a 48% increase in volume and a 27% decrease in worked hours (16 FTEs). Due to the stunning improvements evidenced at SMHC, the laboratory has received numerous awards, including one from the Canada's Provincial Ministry of Health and Social Services, which named SMHC the Most Productive and Cost Efficient Core Laboratory in Quebec.

**Improved Revenues and Profits**

Automation coupled with the Laboratory Information System (LIS) enabled the SMHC lab to enjoy a 60 percent growth in its outreach testing program and a substantial increase in profits.

**St. Mary's Hospital Centre**

*The Most Productive and Cost Efficient Core Laboratory in Quebec*

**Increased Revenues and Profits – Automation**

By implementing a core lab, coupled with automation, the lab reduced its lab space while doubling its volume of operations has traditionally been evaluated using a combination of three variables: analytical quality, timeliness (turnaround time) and operational efficiency.

**Evolution of volume, labour and productivity before and after automation**

**Fewer Manual Manipulations**

Automation in the laboratory, as in any other field, drastically reduces the number of manual steps needed to obtain a test result, and therefore reduces labour. At SMHC, the number of manipulations per sample dropped from 12 to two. On a typical day this represents a reduction in thousands of manual steps. Furthermore, fewer manual manipulations equates to a lower risk of exposure to blood-borne pathogens, thus increasing staff safety.

**Better Use of Lab Space**

By implementing a core lab, coupled with automation, the lab reduced its lab space while doubling its volume of activity. Lab space reduction: from 7,720 sq. ft. to 5,775 sq. ft. Volume of reportable results (RR): up from 1,241,000 to 2,388,339. This brought the number of RR/sq. ft. from 161 to 416.

**Implementing a core lab with an automation system enabled SMHC to reduce its space while doubling its volume**

**Quick Return on Investment**

SMHC achieved a pay-back period within three years. The NPV and IRR were $1.54M and 35% respectively over six years, with an estimated life of the automation system of more than 10 years.

**Due to the stunning improvements evidenced at SMHC, the laboratory has received numerous awards, including one from the Canada's Provincial Ministry of Health and Social Services, which named SMHC the Most Productive and Cost Efficient Core Laboratory in Quebec.**

**Today, the lab continues to be a positive reference for global laboratories seeking improvements through automation.**

**Source:** Beckman Coulter

---

*KIMES 2009*

25th Korea International Medical + Hospital Equipment Show

**MARCH 12 - 15, 2009**

COEX, SEOUL, KOREA

www.kimes.kr

More than 1,200 companies and 60,000 visitors are expecting to fill-up 36,027m² of exhibition space in KIMES 2009.

**ORGANIZERS**

Korea Medical Devices Industrial Coop. Association
Korea Medical Device Industry Association

*Contact: Korea E & Ex Inc.*

T. +82-2-351-0102
F. +82-2-351-0103
E-mail: kimes@kimes.kr
The Eppendorf Young Investigator Award 2008

The 14th Eppendorf Young Investigator Award 2008, worth €15,000, was presented at MEDICA in November. The winner, Dr Simon Boulton of the DNA Damage Response Laboratory, London Research Institute (UK), received the award for his work describing a novel protein that impacts human genome stability and cancer. By combining his knowledge of Caenorhabditis elegans (a nematode) and yeast DNA repair systems, he devised a screening strategy that led to the discovery of a novel helicase in C. elegans, which has many of the properties of the yeast helicase. He then identified the human counterpart (RTEL-1) and could demonstrate that this protein functions as an anti-recombinase. Dr Boulton managed to identify this anti-recombinase activity, which is important for maintaining genome stability in animals. In RTEL-1 deficient mice, activity deregulation of homologous recombination is the probable cause of the loss of genome integrity. Conversely, over-expression of RTEL-1 also causes cancer through promiscuous disassembly of the recombination intermediates involved in repair and leading to mutations that cause cancerous growth. A prospective therapeutic drug is already being tested clinically. During his acceptance speech at a gala dinner attended by scientists and those from related industries, Dr Boulton mentioned his PhD supervisor Professor Stephen Jackson, from the Wellcome/CRC Institute, Cambridge (UK), who received the first Eppendorf Young Investigator’s Award in 1995. Other speakers were Dr Michael Schroeder of Eppendorf, Dr Nick Campbell of Nature publishing group, Professor Kai Simons, Director of the Max-Planck-Institute of Molecular Cell Biology and Genetics in Dresden, and Professor Hermann Gaub from Munich. Launched in 1995 to coincide with Eppendorf’s 50th anniversary, the prize honours outstanding molecular biology-based, life sciences research work in Europe, sponsoring young European scientists (up to 35 years old). To raise the award’s profile further, a partnership with the publishing group Nature was forged. The group publicises the winner’s work via a blog and podcasts to an ever growing internet community of young research scientists representing the future of biomedical research. Eppendorf AG has strong links with this research field and its founders want the award to reflect their commitment to advancing research in healthcare. An independent scientific committee selects the annual winners, each receiving a personal gift of €15,000. Award details: www.eppendorf.com/award2009 award applications: http://www.nature.com/nature/awards/eppendorf

Advances in autoimmune disease diagnostics

European revenues could reach $722 million in 2015

The European market for autoimmune disease diagnostics has demonstrated sustained growth due to advances in detection technology and automation, according to a new analysis from Frost & Sullivan (F&S) (http://www.drugscovery.frost.com). ‘Active consolidation is occurring in the market, promoting technology and product integration. However, the lack of clarity with regard to reimbursement policies for autoimmune diagnostic tests persists, posing a challenge to market expansion,’ F&S reports. ‘The market earned revenues of $513.5 million in 2008 and estimates this to reach $722.0 million in 2015.’

F&S research analyst Suraj Ramanathan adds: ‘The development of novel biomarker panels has accelerated the diagnosis of many autoimmune complications. Exhaustive R&D by many universities and research organisations has yielded promising results in the use of multiple biomarkers for autoimmune disease diagnosis.’

Patient screening with multiple biomarkers associated with several autoimmune diseases has been seen to improve diagnostic accuracy, bringing advantages to physicians. Among the public, however, there is a general lack of awareness about autoimmune diseases, which presents a challenge to this market’s growth, F&S explains. ‘Such low levels of awareness may derive from the rarity of many autoimmune complications among the general population,’ says Suraj Ramanathan. ‘Many patients in Europe, unable to find a proper treatment for their condition, are consequently switching to traditional methods, such as oriental medicine. In conjunction with medical research organisations and hospitals, manufacturers should establish awareness programmes and interactive workshops for the public,’ he advises. ‘These could highlight the prevalence of autoimmune diseases, while encouraging physicians to interact with the public on the symptoms, aetiology and progression of autoimmune diseases.’

‘To receive a virtual brochure on this market in Europe, e-mail Patrick Cairns, giving your full name and title, company name, phone number, company e-mail address, website, city, state and country (pcairns_pr@frost.com).’

From left: Günter Bechtler, Kai Simons, award winner Simon Boulton, Dieter Häussinger, Reinhard Jahn, Michael Schroeder.
**Want to open a care facility?**

What should be done?

Care facilities with a future should orientate around the concrete needs of current or future target groups. These are usually the demand categories of service categories. However, they should still be manageable and their size should not deter other residents. Rural areas in particular have many small facilities with about 30-50 beds, which may be pleasant for residents but not economically viable. One possibility may be ‘satellite models’, i.e. having a central office with deals administration for all facilities belonging to the organisation in a 50km radius. The facilities are relatively small (70-100 beds) and can – through franchising, for example – be let out to different owners. Apart from purely administrative tasks, such facilities could also include management of care processes. Personnel costs would be borne by the funding body.

The residents have apartments with a small kitchen and a washing machine, to retain their autonomy as far as possible in their previous living space, as well as loss of autonomy.

**What are services required?**

Categories expected by future residents:

- Assisted Living, allowing a seamless, individually customised transition to the next categories.
- In-patient geriatric Care
- Care for mentally and physically disabled residents
- Long-term care

**What does ‘trends in demand’ mean?**

To avoid over capacities, a future care facility must orient itself around the respective birth rates from about 70 years ago, i.e. they must consider the lowered birth rates after the economic crisis of 1929 and during World War II. Additionally, after WWII, due to late return of war prisoners, the birth rate only began to rise again in about 1960.

Therefore, due to improved care structures in out-patient services, people who need care can remain in their own homes for longer. The average time spent in care facilities has dropped from 280 days to 180 days. Hospice spaces are in greater demand. The future, calculated needs up to 2030 is expected to be around 200,000 beds, which equates to 2,000 new facilities if one looks at a usage/life expectancy of buildings of about 50 years. The (often enforced) move to a new facility whenever it becomes clear that current structures are no longer up line with the residents’ demands, and that new concepts – particularly structural – are needed.

**Determining trends in demand**

Anyone wishing to develop or take over a care facility should initially check the market to avoid bad investment.

**What is the demand level of future residents?**

In the future, the demographics will change at an early stage, and react accordingly. This means that investors and care providers need to adjust their strategies accordingly.

**What do future residents demand from a care facility, so that they find it an acceptable residence?**

(long text on what future residents demand)

**What should be done?**

Care facilities with a future should orientate around the concrete needs of current or future target groups. These are usually the demand categories of service categories. However, they should still be manageable and their size should not deter other residents. Rural areas in particular have many small facilities with about 30-50 beds, which may be pleasant for residents but not economically viable. One possibility may be ‘satellite models’, i.e. having a central office with deals administration for all facilities belonging to the organisation in a 50km radius. The facilities are relatively small (70-100 beds) and can – through franchising, for example – be let out to different owners. Apart from purely administrative tasks, such facilities could also include management of care processes. Personnel costs would be borne by the funding body.

The residents have apartments with a small kitchen and a washing machine, to retain their autonomy as far as possible in their previous living space, as well as loss of autonomy.

**What are services required?**

Categories expected by future residents:

- Assisted Living, allowing a seamless, individually customised transition to the next categories.
- In-patient geriatric Care
- Care for mentally and physically disabled residents
- Long-term care

**What does ‘trends in demand’ mean?**

To avoid over capacities, a future care facility must orient itself around the respective birth rates from about 70 years ago, i.e. they must consider the lowered birth rates after the economic crisis of 1929 and during World War II. Additionally, after WWII, due to late return of war prisoners, the birth rate only began to rise again in about 1960.

Therefore, due to improved care structures in out-patient services, people who need care can remain in their own homes for longer. The average time spent in care facilities has dropped from 280 days to 180 days. Hospice spaces are in greater demand. The future, calculated needs up to 2030 is expected to be around 200,000 beds, which equates to 2,000 new facilities if one looks at a usage/life expectancy of buildings of about 50 years. The (often enforced) move to a new facility whenever it becomes clear that current structures are no longer up line with the residents’ demands, and that new concepts – particularly structural – are needed.

**Determining trends in demand**

Anyone wishing to develop or take over a care facility should initially check the market to avoid bad investment.

**What is the demand level of future residents?**

In the future, the demographics will change at an early stage, and react accordingly. This means that investors and care providers need to adjust their strategies accordingly.

**What do future residents demand from a care facility, so that they find it an acceptable residence?**

(long text on what future residents demand)
Meeting the needs of religious faiths and different cultures

Increasing migrations of people of various ethnic backgrounds and faiths means their numbers among hospital patients is also rising. In the last issue of European Hospital (vol. 17, 5/08) we highlighted efforts to accommodate the religious needs of patients in various EU countries. Clearly, these important and often confusing issues are also affecting hospitals in many others. We continue with reports from correspondents and contributors on how their countries approach and tackle this trend to enhance medical care.

The Czech Republic

Our correspondent Rostislav Kuklik (above) reports that the physician-to-patient ratio in hospitals is a very specific when it comes to different cultures or ethnicities. Worldwide, local doctors who care for patients from other than a major cultural background must be prepared to handle difficult situations, and solve truly unexpected issues. That’s also true for Czech physicians, who may be confronted with patients coming from two different groups: visitors from abroad or local minorities, such as gypsies, the latter representing most of the potential patients from different cultural backgrounds, because 300,000 of them live in this country. No exact data exists on this, because there is huge difference between the number of people actively endorsing their gypsy origin and the number who claim gypsy as their primary language (mother tongue).

Estimates of their real count vary between other than a million and half a million people.

In terms of foreigners, physicians don’t usually face much problems when taking care of their gypsies, because they all come here on purpose – for business, tourism, or as patients seeking medical procedures that are cheaper than in their own countries, or for similar reasons – and it is highly likely that they come from a good social environment, at least middle class. In any case, all doctors need to solve their healthcare problems, deal with sometimes demanding communication, and satisfy these patients, is a good command of English, empathy, and the usual professional attitude towards a patient. When it comes to local gypsy patients, communication may become very tricky in the blink of an eye. In this regard, their behaviour patterns are very similar to other Indo-European nations, which include their very strong family relations and loud emotional expressions and gestures. However, any physician with average psychological skills and much patience can relate to this patient facet safely (around 10 members coming to visit is normal). A real problem emerges when a gypsy patient is hospitalized and must be treated for the treatment of mental illness is a very sensitive issue, because many are either long-term unemployed (lifetime unemployment is not an exception in this ethnic group) or currently without an income. According to United Nations research in 2003, about 70% of gypsies are unemployed, so here we base our opinion on the experience of the staff at the Hospital of the Diocese of Graz.

Austrian law and Islam

Islam in Austria has the same rights and duties as any other church, going back to the Law on Islam, passed in 1912 by Emperor Franz Joseph. For years, the government officially has declared the existence of a legal person as a counterpart to the state was required. Since 1979, this has been the Islamic community, which means that Muslims in this country have a legal status unique in Europe. Islam has the freedom of speech, gatherings and press. There is no impediment to practising Islam. There is Islamic religion education in state schools based on a state-devised curriculum as well as the respective teacher training. Muslim females can wear headscarf – such as unrolling the prayer rug on the school or in preachers’ offices for a woman to ensure adherence to the Islamic community abides by this. A Muslim woman who insisted that the law on religious freedom meant she could wear a yashmak (veil) in court was found guilty by law to do so. The Islamic religious community stated that Islam does not call for the wearing of a yashmak and that a headscarf suffices for a woman to ensure adherence to religious duties.

Legal situations can arise that are not compatible with everyone’s perception of Islam. Individual Muslims must accept this because, in return, they are granted religious freedom, but vice versa they do not have the right to insist on their views or others.

How Muslims perceive Europeans/Christians

Many Muslims are migrants from traditionally Islamic countries where religion is an essential part of everyday public life. Religion is something visible, not just an inward matter. In Austria they join a society where religion is more of a private matter, so they are not respected, but not playing an essential part in everyday public life and not so publicly displayed. Europe – and therefore Austria – is considered by Muslims to be Christian in a way that, to them, makes it an essential part of their identity to be Christian. The largely internalised religiosity of many Christians is often hard for Muslims to recognise and they conclude that religion is not important to Christians. Social differences and circumstances are interpreted as a lack of lived faith, further evidence for Muslims that their religion is not important to Christians. This sometimes leads to ethnical and religious closed circles, with symbols in public spaces. The experience of hospital nurses shows that the Christian and Muslim symbols, are well respected and tolerated if someone professes their Christian faith and strongly believe that it is important.

How Austrians view Muslims.

An ostentatious religious custom or ritual – such as unrolling the prayer rug on the hospital ward or wearing a headscarf – seems strange to Austrians and is considered inappropriate, because, as pointed out, religion is considered a private matter. Muslims realise that, in Austria, Islam is perceived as backward, formalistic and misogynistic. Islam is also increasingly connected with an inclination towards violence and we tend towards a subliminal distrust of Muslims.

I remember when invited to a celebration of the end of Ramadan, talking to a lady who ran a Turkish grocery store with her husband in a small town. Suddenly she nervously asked: ‘Tell, me, why are these people so afraid of us when all we want to do is live here in peace?’ I was very affected by this.

These views lead to tensions and misgivings that are also evident in hospitals. This is why the Centre for Nursing Staff, an institution run by the parish at the University Hospital Graz-Seckau, and the Nursing Directorate of the University Hospital Graz-Seckau, held an inter-religious and inter-cultural disciplinary study day on the subjects of Christians and Muslims in the hospital last March.

Dr Markus Ladstätter, Vice Director of the Catholic University College for Education Grass-Seckau and specialist in Islam, gave the following recommendations and advice for the dialogue between Christians and Muslims. He warned insistently against over-hasty valuations.

• Islam is complex, Islam existed in times of openness and in times of restriction. Therefore it must not be reduced to a certain period in time as progress, modernity and openness cannot be considered as one religion.

• We should try to refrain from over-hasty assessments. Someone already with a preconception will perceive anything as a confirmation of his or her own preconceptions and will not learn anything new. Learning means opening ourselves up to new facts.

Europe and – therefore Austria – is considered by Muslims to be Christian in a way that, to them, makes it an essential part of their identity to be Christian. The largely internalised religiosity of many Christians is often hard for Muslims to recognise and they conclude that religion is not important to Christians. Social differences and circumstances are interpreted as a lack of lived faith, further evidence for Muslims that their religion is not important to Christians. This sometimes leads to ethnical and religious closed circles, with symbols in public spaces. The experience of hospital nurses shows that the Christian and Muslim symbols, are well respected and tolerated if someone professes their Christian faith and strongly believe that it is important.

For further information visit our website www.european-hospital.com

HEALTHCARE WIPES

Pal’s new range of disinfectant healthcare wipes is compliant with the Medical Devices Directive (MDD/93/44/EEC), and carries the CE mark.

The wipes provide disinfection of external non-porous surfaces of medical equipment and devices for sterilisation in a multitude of environments.

For more information contact: 0845 810 6105

available from...

P A T I E N T  C A R E

19
Religiously motivated behaviour is often strong and culturally dependent interpretations of Islam in different countries of origin. This results in hostile differences not specific to Islam.

Visiting hours – progress or regression?
Even after intensive discussion many questions remain. What are the limits to spreading this knowledge across barriers, to contact people who can mediate after their health and seek treatment. Islam commands that followers look of the opposite sex, others cannot accept they will be treated by medics would never do this. Whilst some Muslim men will different views and interpretations of As in Christianity, there are many different countries of origin. Patients’ faiths. ‘There are no constant hospital guidelines regarding patients’ faiths. There are many different countries of origin. Patients’ faiths. ‘There are no

Rita Kober, of the nursing directorate, initially interpreters were supplied with the support of the hospital management. Some planning difficulties arose because some patients’ clothes should be adhered to as far as possible. The easiest thing would be for men only to be treated by male medics, and for women – meaning doctors as nurses. Certainly, exceptions are not permitted, so examinations by doctors or nurses of the opposite sex are possible. However, it should be avoided and interpreted

Islam forbids the consumption of foods considered to be unclean. This particularly includes alcohol and pork. A solution would be to offer the patient what is prepared according to Jewish guidelines. Muslims can consume dairy produce, eggs, fish, vegetables and fruit. Another option is vegetarian diet, as long as this does not contravene a diet prescribed by the doctor. Another possibility is relatives to supply food from outside the hospital.

Hospital visits: Muslim patients tend to receive many visitors. This is based on the religious duty of Muslims to look after someone who is ill, but is also simply something that is done. Relatives and friends visit, often with the children, and often bring food. Visits are particularly important if a patient is dying; according to Islamic rules, someone who is dying should never be alone. The dying person forgives those who may have done something to him in earlier times. Therefore, it is important to ensure that relatives are able to offer the patient this spiritual, terminal care as a human being.

Migrant medicine as a course for future patients. How does one deal, for instance, with a patient who doesn’t speak German? Almost 10% of Germany’s population is now of foreign origin, with Turks, Kurds and Swabians from the former Yugoslavia. Since 2004 trained medical doctors have been able to spend a term learning about cultural and religious views facing new types of problems with future patients. How does one deal, for instance, with a patient who doesn’t speak a word of German?

Migrants’ genders? Within the Muslim faith, dealing with unknown members of the opposite sex, others cannot conceive of it and would rather go without necessary treatment – despite the Islam commands that followers look after their health and seek treatment.