If it’s war, where are the doctors?

A military deficit of 50% in medical personnel puts NHS ‘on alert’

Thirty thousand British troops would be served by less than half the number of doctors needed in the event of a war against Iraq, according to Dr John Ferguson, chairman of the British Medical Association’s (BMA) Armed Forces Committee. The shortfall in medical personnel has existed for some years, he said, and is underlined by figures from July 2002. Dr Ian Bogle, BMA Council’s Chairman, also emphasised that there is not only a shortage of doctors for the armed forces, but also within the National Health Service (NHS). Calling these inadequacies would have repercussions on the already stretched health service. It would affect the provision of care of non-emergency patients, in a service already beleaguered by waiting lists.

The British armed forces have only 195 of the 416 general practitioners (GPs) needed - although there are a 96 GP volunteer reservists (mainly in the Territorial Army) who could be called up. However, these doctors work for the NHS as GPs or in hospitals.

There are also shortages in other specialties in the Defence Medical Services: the armed forces have 23 anaesthetists but need 120; 11 orthopaedic surgeons but need 98, and 18 general surgeons - they need 143. Shortages are also found in A&E and burns specialists, and another very significant shortage is in anaesthetists - both in the NHS and the military.

A Ministry of Defence spokesman said the Ministry is ‘...working hard to improve the terms of conditions and pay’ and that although medical care...
Transfusion-borne infections: a global problem

Brenda Marsh reports on measures to protect and improve future blood supplies - by buy-out, improved screening and plasma substitutes

HIV, CDJ, hepatitis B and C can all be transmitted via blood transfusion and these fears are changing no donors and transfusion collection and distribution, but also stimulating the race to create ‘substance’ products.

Ensuring blood supplies - due to the threat of spreading vCDJ via transfusion, China has supplemented its own blood supply by buying plasma from the USA. Now, however, the National Health Service (NHS) has purchased plasma collection firm Life Resources Incorporated, spending some £50 million on ensuring that about 45% of its future blood plasma needs (from foreign sources) will be met, as well as containing costs.

China - home to 20% of the world’s population, it has the fastest HIV growth rates. After years of analysis of blood banking and transfusion practices, a Johns Hopkins-led research team says major improvements in blood collection and screening are needed to ensure the safety and reliability of the blood supply. Associate medical director of the HIV Speciality Testing Laboratory at JH, and assistant professor of pathology, Dr Hua Shan says without this, “China could find itself on the up slope of transfusion-borne infection”.

The Johns Hopkins analysis of China’s blood bank system (pub: The Lancet, 2002) covers everything from donor recruitment to blood transfusion. The country’s problems are common in other countries without infrastructure, money or the firm will of government; says Dr Paul Nuss, director of transfusion medicine at Johns Hopkins, joint author of the study, with Dr Shan (a native of China) and Chinese colleagues. The problem is no problem. China could prove helpful elsewhere.

One of the problems in China is that the blood collection is fragment- ed, largely due to land mass and population distribution. Over 400 blood centres collect whole blood and each city government is responsible for providing oversight, even though national agencies create, monitor and enforce these rules, says the researcher.

What is your specialty?

In which department do you work?

Are you in charge of your department’s budget?

How much influence do you have on purchasing decisions?

Can you implement an expression?

Do you assimilate an apparatus?

Do you purchase surgically?

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Do you observe laboratory equipment?
Gas and water leaks, inaccessible regions, potential dangers at every turn...

Put a spy on the job

into a room and literally detect any faults with the ultrasound spy, still standing in the doorway - because it’s now considerably faster.

You don’t have to check each socket with a leak detection spray, which is time-consuming and costly, not only for our maintenance staff but also for the staff who work in the rooms. This is a real cost saving.

MP: We had nothing remotely comparable with this equipment in the hospital, and what intrigued me is that you can discover faults in gas pipes (we have rather a lot) for all medical gases, and some can be dangerous. For example, laughing gas, used in anaesthetics, is a toxic substance, and we must obviously regularly check installations for leaks. This usually poses a big problem, as it’s a complex procedure without access to equipment. The Ultrasound Spy complements the testing and measuring equipment that we already had in the hospital.

It detects defects that are not immediately obvious, so we can prevent potentially big problems, such as completely broken seals that would let gas and steam escape - at which point it would be heard or seen in the case of steam. Using this equipment we can localise problems as they develop, so this is attractive preventive maintenance, which also cuts energy costs.

EH: What’s the next stage in your strategy?

MP: We will check our steam system, and this will (roughly) take us to the end of 2003.

EH: Then you will start again in 2004 - like painting the Golden Gate Bridge in San Francisco.

MP: Not quite. We’ll try to do this in two to three-year intervals, which has proved practicable.
An initial meeting of the committee is scheduled for February. By earlier agreement, discussion will be prepared in small working groups - mainly on cross-border issues - and will be followed by a cross-border transactions and, latterly, conclusions of the health insurance system - in particular the character of a formal council. Proposals for policy recommendations are now being elaborated in separate plenary group sessions, which the committee intends to present by the end of this year. The plan is to discuss them in three working group sessions:

1: European collaboration for the improvement of resources (members: France, Sweden, Denmark, Austria, HOPE, ESPID).
2: Information requirements of patients, the healthcare professions and political decision-making bodies (Finland, Spain, Ireland, Standing Committee of European Doctors, patients' representatives).
3: Access and quality (Germany, UK, Greece, Italy, Portugal, AIM). The topic 'Compatibility of national health policies with European obligations', in which particular attention will be given to the question of what legislative changes and amendments to EU agreements could be necessary to arrive at European solutions, has been postponed for the moment.

An EU Commission communication on free movement of workers

On 9 December 2002, the EU Commission presented a Communication on 'Free Movement of Workers - achieving the full benefits and potential', which describes central problems faced by EU migrant workers and sets out its intentions to deal with them, taking account of case law of the European Court of Justice. One aspect covered in detail by the Commission is the status of free movement in the context of cross-border healthcare provision. (Report available on: http://europa.eu.int/comm/employment_social/news/2002/dec/694_en.pdf)

Preliminary rulings by the European Court of Justice on the reimbursement of costs for outpatient medical treatment within the EU but outside the country of residence.

A case from Germany was recently referred to the European Court, dealing with the lawfulness of prior approval of cost reimbursement at the cost of medical treatment abroad. A patient with compulsory statutory health insurance had initially been treated for a skin tumour by a consultant in Germany, but the treatment, which concerned several sessions, was then continued partly in Austria and privately invoiced. Two female doctors who had originally worked in the first doctor's practice had a second practice in Austria. The costs of treatment in Austria were charged by the health-insurance-fund member to his local fund. However, the fund refused to pay, pointing out that other than in acute cases - prior approval was required for treatment abroad. In appeal proceedings, the Federal Social Court has now suspended the case and invited the European Court of Justice for a preliminary ruling (case reference B 1 KR 28/01 R).

The Federal Social Court is now asking the European Court whether it is compatible with EC law for a Member State, with a health-insurance system characterized by the principle of providing benefit in kind, and where outpatient medical care is provided by licensed physicians, only to permit reimbursement of costs where non-licensed doctors are used - although under certain conditions of State - if treatment corresponding to the generally recognized state of the art of medical knowledge is not available within the system providing benefit in kind. If an inadmissible obstruction to the free movement of services is perceived therein, the Court is more over asking whether EC law would allow that German law - other than in emergencies - should render reimbursement of costs in the context of self-procured medical services (e.g. dependence) in prior approval by the health-insurance fund.

EU eastward expansion: decision at the EU Summit in Copenhagen

On 12/13 December 2002, the Copenhagen European Council declared the accession negotiations with Estonia, Latvia, Lithuania, Malta, Poland, the Slovak Republic, Slovenia, the Czech Republic, Hungary and Cyprus to be concluded. These States will therefore become new Members of the EU on 1 May 2004. The Accession Treaty, to be signed in Athens on 16 April 2003, will enter into force on 1 May 2004, Bulgarian and Romania accession will become EU Members in 2007, if they can demonstrate in sufficient, prior time that they have made the requisite progress in fulfilling membership criteria. Furthermore, in December 2004, on the basis of a report and a recommendation by the Commission, the European Council will decide on whether Turkey fulfills the political criteria of possible EU admission. If this should be the case, accession negotiations will be opened with Turkey. Source: EU Commission.

New provisions regarding mutual recognition of professional qualifications in the healthcare sector - current state of process

Upon a proposal from the EU Council Presidency, the European 'Competition' Council dealt in November with the revised form of the process for the mutual recognition of professional qualifications. The aim of the reform is to bring together the 15 existing directives to form a single text and, in parallel, to reduce the number of articles on mutual recognition of professional qualifications in seven professions from 300 to 60 (in particular also for doctors, nurses, dentists and midwives). At the Council session, most Member States declared themselves in favour of a simplification of the mutual recognition process, which has prevailed to date. However, Germany rejects the tar- geted reduction of an EU committee. Other aspects are also the subject of disagreement. However, by May this year the Member States should have prepared a Common Position.

EU Directive on Blood and Blood Products: result of mediation procedure

The mediation committee between the Council and the EU Parliament has agreed on a compromise over the EU Directive on Blood and Blood Products. The Parliamentary delegation to the mediation committee has now proposed to the plenary session that the compromise achieved should be accepted. Since the Council had already adopted numerous proposed amendments from the Parliament, from the second reading, the Agreement in Common Position, in the end it was primarily the question of examining donors before each blood donation that remained an issue. While the Parliament had proposed making a doctor responsible for the deciding benefit in kind, the Council deemed the formulation 'member of a healthcare profession' a sufficient requirement. Parliament and Council ultimately agreed that an appropriate qualified member of a healthcare profession (medical expert or biological scientist with appropriate professional experience) should be responsible for examination of donors. Acceptance by way of a third reading of the proposal took place in December 17, 2002 in the European Parliament. Background is the intention that the Directive should improve the current provisions on quality and safety standards for the extraction, testing, processing, storage and distribution of human blood and blood products. The provisions should guarantee that the relevant technical requirements and standards are adjusted to reflect scientific progress. The EU is also introducing a system by which incidents and unfavourable reactions during the transfusion processes are recorded. Areas covered by the Directive will include a suitability check on donors, licensing and equipment of transfusion facilities, qualification and further training of medical, technical and care staff, checking and inspection mechanisms for facilities, a system for tracing back blood donations from the recipient to the donor and, where needed, epidemiological support for donors.

The International Babyfriendly Hospital Award

Throughout the World Health Organization (WHO) and the UN International Children's Emergency Fund (UNICEF) have started to encourage hospitals to promote breastfeeding and give corresponding advice and support for patients in hospital. Both organizations have developed a ten-point programme, which, if adopted by a hospital, guarantees any acceptance of advertising for artificial baby food, will gain it a Babyfriendly Hospital award from the WHO and UNICEF. (Details: www.unicef.org/bfhi).
EU Commission recommends quality criteria for health-related internet content

In December the Commission approved a Communication which set out a number of key quality criteria for health-related internet webpages. The Communication contains recommendations regarding transparency and honesty, authorship, confidentiality and data protection, updating of information, liability and accessibility. The criteria apply both to passive, informative content and to transactions between service or information providers and users. They are intended to particularly serve Member States as a guideline for creating their own quality assurance systems for health-related internet content. The EU Commission aims to pursue implementation of the quality criteria further within the framework of its Action Plan eEurope 2005. It also plans to set up a system of easily recognisable EU seals of approval for internet content. (Details: http://europa.eu.int/information_society/europe/ehealth/index_en.htm).

Phasing out of antibiotic use for growth promotion

In November the European Parliament accepted an Opinion supporting the proposal by the EU Commission that the use of antibiotics as animal growth promoters should be ended. However, the Parliament is demanding that the prohibition should not take effect as early as 1 January 2005, as planned by the Commission, but from 1 January 2006. Moreover, until the end of 2008, use of two substances should continue. Further exceptions should exist for scientific purposes and for pet food. Source: A5-0373/2002.

European Court of Justice proceedings regarding internet mail order medicines

The European Court began hearing a case in December between the German association of pharmacists, Deutscher Apothekerverband (DAV), and the internet pharmacy DocMorris. The DAV takes the view that delivery to Germany breaches current German law on medicines. However, DocMorris invokes the free movement of goods and services within the EU Single Market. The Court must moreover clarify whether the DocMorris internet pages contain prohibited advertising of unlicensed and prescription-only medicines. Primarily the question is whether mere information on product name, package size and prices should be considered as advertising.

A GUIDE FOR RISK MANAGEMENT - Due to the growth in hospital insurance premiums, as well as liability risks, limiting these and controlling costs are vital. But, say Prof. Volker Graf et al., in a 224-page book on the subject, only risk management firmly rooted in quality management can guarantee this. The volume (c. 34 euros. ISBN 3-472-04799-2), which is aimed at managers seeking to integrate risk management into hospital agendas, presents ways of avoiding economic risks whilst still guaranteeing quality treatments. Providing information about requirements as defined by the KonTraG, and essential aspects of risk management in terms of accounting, the publication also offers information about lowering liability risks in hospitals. Main topics covered are:

- Integrating risk management in every day management
- Elements and evaluation of an early risk diagnosis
- Risk management and liability law
- Protective mechanisms from a political/professional perspective
- The risk management process
- Implementing risk management in a hospital routine
- Practical examples and checklists etc.

* AUTHORS: Prof. Volker Graf, CEO Ludwigshafen Clinic and hospital management lecturer at the Ludwigshafen polytechnic; Raimund Lichtmannegger, CEO MedixRisk Bayern Risk Management GmbH and executive for an insurance department handling hospital law suits; Dr Andreas Fuller KBD, CEO of MedixRisk Bayern Risk Management GmbH and project manager for hospital risk management surveys.

Medical books at the Frankfurt Book Fair - 1,000 German and international specialist publishers offered new titles at this year’s event. These ranged from ‘Naturpathy practice today’ by Elvira Bierbach (pub: Urban und Fischer), and ‘Migraine’ by neurologist Hans Christoph Diener, to ‘Differential diagnostics in MRI’ by Francis A. Burgener et al. and ‘Tumour Pain’ by Wolfgang Lurie et al. (pub: Schattauer Verlag). Whilst these books are in the German Language, Schattauer also publishes English-language titles on organ transplants, ENT/Medicine (Atlas), psychology and psychotherapy.

The pros and cons of endoscopic surgery in gynaecology are discussed by Eduard Malik and Klaus Diedrich in ‘Gynaecological Endoscopy’ published in German by Steinkopff Verlag, Darmstadt, which also displayed new titles covering paediatric cardiology, epilepsy, neuropathology and surgical techniques and split liver transplants.

The publisher Urban und Vogel presented ‘Elementa’, a work by gerontologist Ingo Fuesgen, along with books on diets for patients with food allergies and intolerance, a guide for heart patients and another on tinnitus.

The hot issue of euthanasia is aired in ‘Euthanasia: The new civil culture of killing’ published and presented at the fair by Mabuse Verlag of Frankfurt, which also showed works palliative medicine and care, health economics and the role of medicine in the Third Reich.

The ability to integrate people, systems and information in one harmonious flow is more vital than ever in order to improve workflows and enable better decision making. Siemens is developing solutions that combine patient information from all sources with the ability to access data from anywhere, at any time. We're bringing together design excellence and patient care to provide an anesthesia system that can treat all patient categories.

Siemens Medical Solutions that help

Siemens Medical Solutions that help

We're uniting advanced ventilator technology with unique monitoring capabilities to simplify the process of transport and provide continuous data recording. Contact your local Siemens representative for more information, and see how it all comes together.

www.SiemensMedical.com
Catering

Cook, chill & feed as needed

Why do nearly all of Germany’s 32 university hospitals want to convert to ‘cook & chill’ catering? Report by Anja Behnigger

...sounds familiar ?

Cook, chill & feed as needed...
An Executive MBA in Health Care Management

GERMANY - The Hannover School of Health Management (HSHM) [Details www.gisma-hannover.de] offers a unique AACSB accredited Executive MBA programme, with a specialisation in Health Care Management, in co-operation with GfISMA Business School and Purdue University (Kranert Graduate School of Management).

Dedicated to the education of healthcare decision-makers, and particularly focusing on hospital and general healthcare issues, the programme’s organisers say: “It is increasingly clear that healthcare specialists need management skills and a sound understanding of finance, marketing, strategy and organisational behaviour to steer this industry. The programme’s objective is to find answers to developments and challenges in healthcare management.”

The Executive MBA in Healthcare Management represents a specialisation during the third Module of the General Management Executive MBA Programme. The world-renowned faculty of Purdue University teaches management theory, while experts at HSHM and other leading institutions provide the hospital and healthcare content - a partnership guaranteeing a close-to-practice combination of healthcare and management. As part of the campus of one of the world’s leading academic medical centre guarantees close interactions with real life challenges of hospital managers in a rapidly changing environment,” the organisers add.

“The joint Executive MBA programme at HSHM equips participants with invaluable assets for the future. The programme combines excellence and rigor in teaching and research with a strong pragmatic approach.” The Master of Business Administration degree, presented by Purdue University, is AACSB accredited. Organised in an Executive MBA format, students stay six sets of two weeks on campus (six residencies in the US, six in Hannover), applications for the next 22-month programme, commencing in March 2003, must be received by 31st January 2003. Tuition fees: 30,600 euros.

Details: Malte Mevissen, GfISMA Business School, Feodor-Lynen-Str. 27, 30625 Hannover, Germany. (e-mail): mmevissen@gisma-hannover.de. Phone: +49 (0)511-54609-15. Fax: +49 (0)511-54609-54. Dr. Prof. Dr. med. M. Schoenemaker (schoenemaker.matthias@mh-hannover.de). Prof. Dr. oec. V. Amelung (amelung.volker@mh-hannover.de)

XT-2000i
Inheritance of performance

Are we not usually proven right if we believe in the youngest member of a family to perform well, taking after the successful big sister or brother? Likewise, you can believe in the performance of a sysmex instrument.

Our »youngest« family members usually have »older« brothers that have already proven their great performance. With the bigger brother being the xe-2100, you can imagine what capabilities the smaller family offspring has inherited.

The new xe-2000i is the latest member of the sysmex xx-family – haematology analysers employing the highly advanced Fluorescence Flow Cytometry. Featuring almost all parameters and channels of the xe-2100, the xe-2000i distinguishes itself by a compact size and an economical approach, thus conforming to today’s hospital budgets. It offers high quality results with clinically significant information and excellent efficiency for the separation of normal and pathological samples, along with the famous system stability and ease of operation – characteristics of all sysmex instruments.

SYSMEX XT-2000i: Performance inherited!
**EU fragmentation prevents IT growth**

Due to a shortage of doctors and nurses, Greg Lucier points out that everyone working in healthcare in the future will need to be 1-2 times more productive. Automation of some tasks could at least relieve them of some terrors. This can only come from advances in information systems and greater understanding by the healthcare industry of the way hospitals work.

GE’s today’s intensive care units, monitors do not communicate with infusion pumps, which in turn do not communicate with IT systems. So in the future we will need what we call medical automation, where all the electronics and systems are integrated, allowing more of what I call closed monitoring control around a patient. The monitor would be intelligent because it would be integrated with the IT system, and could activate an infusion pump or deliver drugs, without a nurse being so involved in the process. This means we have to build a business incorporating both medical devices and information systems.

About three years ago we were looking at what really drives sufficiency in healthcare - a US concern, but totally universal. I have visited over seventy nations in recent years. We tried to understand what drove the economics of hospitals - which is ultimately a good workflow.

So our vision is to make doctors and nurses more productive by standardising more of their clinical workflow. To this end, in 1997 we acquired market electronics, taking the first step in our medical devices strategy - in cardiology and patient monitoring. There were many patient monitoring more mobile, more wireless. So we needed many companies to integrate these into a standard architectural platform. This was one direction to build up our patient monitoring devices strategy.

On the information system side we had the PACS business, which is where we began. So we shifted on to radiology then cardiology, and next it will be electronic patient records (EPR), and so on, building steps up to an enterprise-wide and hospital-wide information system strategy.

**EU fragmentation prevents IT growth**

EU comes EPR. What is implemented in Europe, are clinical information systems usually large, labo-

atory and critical care systems that are more standard, more uni-

eral and it’s not going to be a big impact on information systems.

That’s where time should be spent.

Our strategy will become a bit less Microsoft-centric, going more towards SUN micro-systems, because we think the centre will be mission critical systems. You must have a unique space environment and more heavy duty IT to keep hospitals running. Microsoft is seen more in doctors’ offices.

**HE. The problem is that we have the ‘GE solution, Siemens solution’, ‘Agfa solution’, ‘Philips solution’ and so on. A radiologist may want one company’s solution, whilst a cardiologist wants another’s. Shouldn’t we be a platform to connect them?**

**GL. Yes, and there have been some good developments. DICOM shapes relatively perfect images. HL7 is not good enough yet, for patients’ case histories. There are questions to answer, such as how one system’s code for diabetes compares with another system’s code. Compatibility is essential to make real changes in how medicine is practised. A lot of work is going on, and perhaps AEG will do what you mentioned in the next five years.**

**EH. Which means everyone will have to speak English.**

**GL. Yes. And Eastern Europe is obviously lagging behind. But I see these markets unfolding in very similar way. It’s just timing. Japan is a few years behind the US, and presents a terrific opportunity. China may grow even better - they have much money now and will happen.**

Recently we moved our headquarter from Tokyo to Shanghai, because we think China is a huge market in the future. For GE Medical, China will surpass Japan soon as the second biggest sales office. Think about the competition from native Japanese sales going to being a fraction of Japanese sales to being larger, in just five years. China is now a billion-dollar business.

**Europe?** Well, due to fragmenta-

**tion I don’t think it will be a future in terms of these developments.**

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**General Electric Medical Systems**

The 9-billion-dollar medical systems division of GE (established over 100 years ago) focuses on medical imaging, healthcare services, and information technology, offering networking and productivity tools, clinical information systems, patient monitoring systems, surgery and vascular imaging, conventional and digital X-ray, computed tomography, electron beam tomography, magnetic resonance, ultrasound and bone mineral densitometry, offering networking and productivity tools, a comprehensive portfolio of clinical and business services. GE operates in over 100 countries, employing more than 100,000 people worldwide.

Information technology produced by GE Medical Systems for clinical and administrative fields can be viewed on www.gemedicalsystemseurope.com/euen/it solvedsolutions/homepage_information.html

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**Digital tomosynthesis**

USA - A new approach to mammogra-

phy may greatly improve the detection of breast lesions and the ability to predict malignancy. Dr. John Rafferty of the Breast Imaging Service at Massachusetts General Hospital (MGH) reported at the RSNA conference - that initial results of a study comparing digital tomosynthesis with standard mammography, showed the former significantly reduced false positive test results.

Overlapping of breast tissue structures can be a problem in mammography and shadows that mimic a lesion on conventional mammography, she said - false positive studies accounting for 5-15% of referred women for additional imaging from screening mammograms. Tomosynthesis eliminates structure overlap, thus preventing unnecessary biopsy calls back.

**Dr Daniel Kopans, MGH director of breast imaging and one of the inven-

tors of the tomosynthesis system (MGH patented) said tomosynthe-

sis is a modification of a standard digi-

tal mammography unit, taking digital mammography to a new level. The breast is held the same way, but only compresses each breast once, rather than twice as in standard mammogra-

phy. In tomosynthesis the X-ray tube moves in a 90-degree arc around the breast while in low-dose images are taken during a 7-second examination.**

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**Real time 3-D**

Optional software offering real-time 3-D enhancement when added to ProSound SSD-5500 produces an advanced data management system (eDMS), has been launched by Aloka Co. Ltd of Tokyo, Japan.

NEW! Digital tomosynthesis

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**seen at the RSNA**

Understanding images - Providing model-based vision software to leading global medical imaging OEMs and for the development of digital radiology, Image Metrics plc (Manchester, UK) develops scalable and technically robust ‘Computer-Aided Radiology’ solutions. These help radiologists in the automated analysis, classification and interpretation in several clinical areas, the firm says.

The firm’s generic Optasia software platform is now applied to work with digital radiography images. The automated classification of diagnostic images of the lateral spine and rapid identification of vertebral deformity, occurring in conditions such as osteoporosis. Image Metrics is seeking commercial partners. Details: www.imagemetrics.com
Aloka plans to distribute the new software enhancement package for ProSound SSD-5500, this spring.

Abdominal imaging update

THE NETHERLANDS - An abdominal imaging update course will be held at the Academic Medical Centre on 23-24 January 2003. Sessions will cover imaging of the liver, pancreas, and for colorectal cancer and inflammatory bowel disease. Live demonstrations will address optical coherence tomography and fluorescence and high-magnification endo-image interpretation (CT, MR imaging) sessions, at a workstation, will include virtual colonoscopy.

Details: js.goeidoop@amc.uva.nl.

Contrast media use set to rise

Although worth $684 million in 2001, the arrival of new diagnostic imaging technologies, including limited- or no contrast agents, depressed sales. However, a new study by market research firm F&S & Sullivan points out... medical institutions are ramping up imaging equipment installations, necessitating expansion in radiological examinations that will continue to need contrast media for imaging...

CT has the highest amount of procedures using contrast agents - in 2001 almost 12.2 million CT examinations in Europe involved contrast agents, pushing the sector to the top in contrast media use.

While there is currently price competition, he believes prices will stabilize by the end.

New imaging technologies that minimize the use of contrast agents in many imaging procedures will see their market saturation. He also forecasts that the market..."will be awash with novel products that can replace the use of contrast media."

These new launches, boasting superior features, may generate higher prices, "mainly because every new addition to the production line increases clinical value and hence, end-users are willing to pay a higher price."

F&S concludes that a closer working environment will develop between contrast media and imaging equipment industries, mainly to develop new agents to complement technology-driven imaging equipment.


http://medicaldevices.troot.com

Known about the new technology?

Good. Let’s talk about telepresence, tele-immersion, teletrauma and nomadic computing.

TELEMEDICINE

Fixed platform CT is cheaper

Costs compared between fixed and transportable scanners

The technical costs of using a fixed platform computed tomographic (CT) scanner are lower than those incurred when using an in-hospital transportable CT. According to the American Health Group, this means that by the year 2000 almost 12.2 million CT examinations in Europe involved contrast agents, pushing the sector to the top in contrast media use.

The researchers calculated fixed costs (machine/service contracts) and direct fixed costs (personnel), plus indirect costs such as space and departmental overheads. Total costs were calculated as the sum of indirect, direct fixed and direct variable costs. Personnel costs were calculated from time and motion analyses involving 95 patients who underwent CT with either a transportable (n = 51) or a fixed platform (n = 44) CT scanner. They calculated costs per examination using low- and high-examination-volume models and used the Wilcoxon rank sum test for comparisons.

The transportable scanner total cost per examination ranged between $108.98 and $162.70 for low- and high-volume models, whereas the fixed platform scanner cost fell between $75.24 and $152.93 for high- and low-volume models respectively. In the fixed platform, transportable scanner, direct fixed and direct variable costs per examination and were calculated as $870.59, $70.73, and $9.42 respectively using the Internet in a multi-centre clinical trial - invaluable where clinical trials focus on rare diseases where the patient base is diverse and geographically dispersed.

Generally, those involved in multi-centre clinical trials must send medical records and images off-site, to safeguard material in the event of a hospital disaster.

Multi-Centre Clinical Trial Using MRE, a project run by scientists at the Kennedy Krieger Institute, Baltimore, tests the feasibility of using the Internet in a multi-centre clinical trial - invaluable where clinical trials focus on rare diseases where the patient base is diverse and geographically dispersed.

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A global system for pro-active monitoring
Plus - firms link to integrate OT and HIS systems

Siemens Medical Solutions (Med) has opened an international System Management Centre (SMC) in Erlangen, Germany, to provide pro-active monitoring for all connected medical devices manufactured by Med. These include CT, MR, Angiography and X-ray systems, as well as nuclear medicine systems and SIENET - Siemens clinical network solution. The pro-active service comes in a package - a long-term investment security for hospitals and private practices, the firm points out.

The SMC registers warnings from the systems and takes corrective action at an early stage. Daily, over 100 systems are being proactively monitored by service personnel; the firm reports. Monitoring commences in Erlangen as soon as a system is switched on at the customer site, and messages are automatically transmitted to the SMC via a worldwide server. Adverse events are reported to the SMC and check-lists from the SMC are sent to the customer. Currently, over 9,000 systems are connected to the Siemens Remote Service Network (Security). The monitoring engineer can only access technical data, i.e. not patient data.

Dr. Eckart Peter Komer, director at the Hanau City Hospital said the system ‘... enables us to have a seamless examination flow in cardiology.’

A co-operation has also been announced between this branch of Siemens and Karl Storz Endoscopy, Tuttlingen. The firms will link international activities in integrated operating theatre systems (OTS) for minimally invasive surgery (MIS). Their goal is an integrated system solution for the OR1-concept with SCB and AIDA from Karl Storz, will provide the backbone for activities in integrated operating theatre systems (OtS) for minimally invasive surgery (MIS). Their goal is an integrated system solution for the entire treatment process, from therapy planning through to patient discharge.

In an interview with European Hospital, Frank Epp, Marketing Manager of Pentax Europe Medical Division, describes the firm’s new digital video endoscopy system, even though this is actually required in guidelines set out by specialist medical associations.

EH: So your competitors face a problem?
FE: Correct... they recommend brushing down the working instrument channels, but do not mention cleaning air and water channels.

EH: Is the effectiveness of this construction scientifically proven?
FE: A study carried out by a working group led by Professor Martiny, at the Institute of Hygiene in Berlin, showed that endoscopes with detachable caps achieved 97% more cleaning efficiency than those without detachable caps.

EH: So, currently your products offer a distinct advantage?
FE: Yes, definitely. PENTAX is continually setting new standards with innovative developments in hygienic construction of flexible endoscopes.

What’s in a name?

Last October, Asahi Optical Co. Ltd became the Pentax Corporation. Through the years the brand name Pentax became a synonym for top-quality optical products. Among Japanese consumers as well as professional and amateur photographers worldwide, brand and company became one, which was taken into account by Asahi Optical, now officially losing its corporate name, used since 1938. During the name change the US subsidiary of Pentax had to be renamed Pentax USA, Inc. to avoid confusion, because that organisation had held the name Pentax Corporation for some time. This name now describes the Japanese company itself and its HQ.

Pentax believes the name change will have a considerable impact on their public image and enhance brand awareness.

Pentax Europe GmbH employs about 210 persons. From April 2001 through March 2002 the European turnover was 217 million euros - representing a growth rate of 21%
Learning from industry

What can hospitals and industry teach each other? Using endoscopy as a focal point, hospital managers, medical professionals and industry experts exchanged views on process optimisation and its potential implementation in medical institutions, at the Olympus Medica Expert Night (Düsseldorf).

‘The concept of a process-based structure led to a revolution in industry,’ said Professor Hermann Simon, industrial strategy consultant for international companies such as Siemens, Mercedes-Benz and Hewlett-Packard. As a result of fundamental revision and the common radical redesigning of business processes, he added, the same dramatic improvements in costs, quality, service and efficiency can be achieved by hospitals - however, at the outset, clear restructuring of processes are needed - and must be followed throughout.

Although the introduction of diagnosis-related groups (DRGs) implies a change from a cost-based to service-oriented focus in public healthcare, in the long run success will only be ensured by outcome-oriented working,’ said Dr Oliver Rentzsch, former professor of healthcare management at Luebeck University and hospital manager in Hamburg. Concentration on medical processes represents a significant response to the introduction of DRGs, he thought, pointing out that success can only be achieved by efficient multidisciplinary medical processes that span departments, and with essential medicine structured in shorter and more effective processes - without omitting what is reasonable and necessary.

‘Health and socio-economist Olaf Lenzen, of agens Consulting, Hamburg, also emphasised that process quality, plus the cost and performance of diagnoses, treatments, care and administration, will determine a hospital’s competitiveness in the future.

It was generally agreed that only efficient departments, adapted to patients’ and healthcare providers’ needs, will increase efficiency and prove successful in this new health-care business orientation.

Existing co-operations between industry and clinics already demonstrate success in cost reductions for logistics, supplies and complex service provisions. An example of the latter was provided by Olympus, which has developed organisational structures to improve processing and increase efficiency in endoscopy departments (in hospitals, health centres as well as for general practitioners (GPs)). The firm carries out detailed analyses of precise needs, processes and relevant products. Each analysis also allows for future-oriented adjustment and need-related planning by the department. Exact simulation models enable a cost-benefit analysis, thus ensuring optimisation of individual processes in the participating facilities.

Source: Thomas Pracht, Olympus Optical Company (Europe) GmbH, Hamburg

Operating Tables

...modular, flexible and functional

Successfully pilot tested at the Katharinen Hospital, Stuttgart, STREAM (sophisticated trauma emergency application management) is a new, fully radiolucent carbon operating tabletop that eliminates multiple, time-consuming repositioning of a patient. The table is intended for quick first aid and when compared with the expected population risk, they were three times as likely to develop MS. And when compared with the expected population risk, they were three times as likely to develop MS.

Dialed between 1980 and 1999, and when compared with the expected population risk, they were three times as likely to develop MS. The authors say their analysis is a little crude and approximate, but that these preliminary findings suggest that nurse anaesthetists are at increased risk of MS, and they call for tighter controls on the levels of circulating anaesthetic gases in operating theatres and better ventilation to minimise the risks.

Contact: Dr Ulf Flodin, University Hospital, Linköping University Hospital, e-mail: ult.flodin@liu.se

Anaesthetics

Whichever something truly new is to be created, you need vision. Taking several steps at a time, the new Video System from Pentax sets new standards in digital video endoscopy. The EPK-1000 video processor and video endoscopes of the 70K and 80K series feature innovative design and exceptional ergonomics, optimising image quality and therapy capability. If you too want to experience endoscopy digitally, contact us: Telephone +49-40-56192·0; Fax +49-40-5604213; E-mail: medical@pentax.de or Internet: www.pentax-endoscopy.com
Many people still have reservations about the potential benefits of information technology (IT) on the quality and cost of healthcare, according to a new US survey carried out by Harris Interactive for the First Health Group.

The survey questioned respondents' reactions to IT use in healthcare, ranging from online access to medical records to remote devices monitoring vital signs. In general, it was found that Americans do value IT and some believe it will improve communication with healthcare providers and their overall healthcare, but many others remain sceptical, and some said the internet and wireless technology has not yet been used to the benefit of patients.

The survey was carried out by Harris Interactive and received responses from more than 1,000 American adults from 24 states.
For new-born babies

Von NETHERLANDS - 80% of Dutch and 30% of German new-borns are now being bathed in a TummyTub inspired by midwives and paediatricians. Instead of lying backwards a baby is held upright in a ‘bucket’, a position similar to being in the womb, said Dr Peter Schwaab, chief gynaecologist at the Maria-Josef-Hospital, Greven, Germany.

Mena van Damme, midwife at Soest maternity clinic, found that babies placed in this bath seem more at ease and ‘... fall asleep faster and sleep through longer’.

The manufacturer points out that the tub is easy for new parents, as only the child’s head needs light support and the sides prevent babies from slipping underwater. They also cut out draughts. Water, at shoulder height, stays warm for c. 20 minutes - ensuring time for relaxation, which may also ease tummy aches. The tub needs just five liters of water, so a child can be bathed almost anywhere, and its size makes transportation easier.

Source: DomoVital Vertriebs GmbH

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Presented at MEDICA (November) by Wouter Bosserhoff GmbH of Wickede, the Eleganza range offers standard as well as deluxe beds. The firm points out that these have removable, easy-to-clean, compact laminated sheets (HPL) that are virtually indestructible. The surfaces can also be equipped with optional X-ray proof backrests.

Bed-length has been shortened eight centimetres to facilitate movement in corridors and lifts. Reclade pedals also have underlying further ergonomic improvement. However, the beds still feature easy-to-service linear motors. Powerled height adjustment ranges from 42 to 82cm and there is ‘invisible’ backrest height adjustment. Power functions can be controlled via a Supervisor panel (storable in the bedding drawer). The lower leg rest in the four-part lying surface is mechanically adjustable.

A double retract feature - Along with 1cm backrest retraction (in accordance with DBiK recommen-}

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Multi-function beds

The Combitainer range made by Heidelberg Drive are also possible:

Customised versions of the KT3 systems for sensitive areas, lock-

They also cut out draughts. Water, at shoulder height, stays warm for c. 20 minutes - ensuring time for relaxation, which may also ease tummy aches. The tub needs just five liters of water, so a child can be bathed almost anywhere, and its size makes transportation easier.

Source: DomoVital Vertriebs GmbH

Innovations

State recognition for quality

GERMANY - The 5th Thuringia State Award for Quality has been gained by Carla Jena, top manager of the Department of Trade and Commerce, and presented by State Premier Dr Bernhard Vogel. The award results from a benchmark marking analysis in accordance with the European Foundation for Quality Management model (EFQM model). Carl Zeiss Jena achieved the best ratings for management of business processes and customer satisfaction in six of the nine criteria.
cardiovascular disease?

Calcium deposits in breast arteries may prove useful in detecting coronary artery disease in women, including those without symptoms, according to research presented by the Mayo Clinic of Rochester, Minn., at the 86th Scientific Assembly and Annual Meeting of the Radiological Society of North America (RSNA). The study indicates that the presence of a certain level of breast arterial calcification puts a woman at a 20% increased risk of coronary artery disease compared with other women of the same age.

Mammograms from 1991-2001 from 1,880 women patients (average age 65 years) who underwent coronary angiography and mammography within a year of each other, between 1991-2001, were reviewed. Results showed a 40% increased risk for coronary artery disease in women with breast arterial calcification (appearing as streaked white lines, unlike calcium deposits indicating breast cancer) compared with all women, and a 20% increased risk after correcting for age.

‘Using an already widely accepted and routine screening test to help determine the presence of coronary artery disease could result in a substantial benefit to patients and the healthcare system,’ said lead investigator Dr Kirk Doerger, a resident in radiology at the clinic. ‘Women with significant arterial calcifications should be referred to a physician for cardiac risk factor screening and possible lifestyle modification.’

‘The fact that so many women die each year unaware of their heart ailments illustrates the need for better detection of coronary heart disease,’ said co-author Dana Whaley MD, senior associate consultant in radiology at Mayo Rochester. ‘Mammograms are already paid for in terms of time and healthcare dollars. Another advantage — less radiation exposure.’

Quick access to coronary sinus

Cardiac Resynchronisation Therapy (CRT) requires two ventricular pacing leads for biventricular, synchronised, stimulation. The biggest challenge is to implant the left ventricular electrode through the coronary sinus in an optimal area on the left ventricle. Studies within the scope of the Contak Registry (1,000 patients) showed that if access to the coronary sinus is found, the left ventricular electrodes is successfully placed in 95% of the cases. Failing to find access to the target vessel caused 63% of all unsuccessful cases. In response to this, the Guidant Corporation has developed additional introducing catheters for its left ventricular Easytrak lead.

A dual-catheter system has now been added to the existing portfolio of five differently shaped introducing catheters: the Rapido dual-catheter system is designed specifically to provide access to the coronary venous system for left ventricular lead placement. This system consists of an inner and outer guiding catheter. Used together, 3-D and telescopic possibilities offer flexibility during coronary sinus cannulation, help to deeply seat the outer guiding catheter, facilitate branch vessel selection and enable a selective venogram.

ECR 2003

March 7-11, Vienna / Austria

ECR goes "all-digital"

ECR 2003 will be the first international radiological meeting to feature an entirely electronic scientific exhibition.

"E³"

European Excellence in Education

"E³" will be a major buzzword at ECR 2003. Its aim is to enhance the quality of continuing education, to grant a broader audience access to the scientific information presented at the meeting, and to produce a wide range of excellent learning and audiovisual materials.

As part of the "E³" initiative, ECR 2003 will feature several interactive teaching sessions.

State-of-the-art scientific programme

The scientific programme at ECR 2003 will include more than 1,000 scientific lectures and several hundred high-quality electronic scientific exhibits.

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