CAROTID STENTING: 'A FEEDING FRENzy'

Vascular experts urge caution over stent placement to prevent stroke
Karen Dente reports from New York

A t the Vascular and Endovascular Issues, Techniques and Horizons (VEITH) Symposium in November, attended by key opinion leaders in the field of vascular surgery, physicians remained divided on the issue of stroke prevention with carotid stent placement in patients with carotid artery disease. Most experts agree that more information is needed regarding stents, particularly for those with asymptomatic disease.

Kenneth Oriel MD, of the Cleveland Clinic, Ohio, an avid proponent of stenting who was involved in the pivotal SAPPHIRE trial, sees a ‘big future’ for carotid stenting. ‘All the trends look in favour of stenting,’ he said in an interview. The SAPPHIRE trial, a randomised study comparing stenting to surgery in symptomatic patients with over 70% occlusion of the carotid artery, paved the way for FDA-approval and reimbursement this year. However, it has been the subject of much debate, and the value of the study has come under heavy scrutiny by many opponents in the field of vascular surgery, who have performed the surgical procedure to remove plaque for many years with a very low risk of complications.

Carotid stenting is rapidly becoming a high-volume operation in the United States, hastened on by device-manufacturers promulgating it as a minimally invasive procedure. ‘The bundling together of hospitals’ purchasing power is resulting in continuing pressure on prices, which presents challenges for the sales and marketing activities of medical devices manufacturers.’

Karen Dente

New link between gum and cardiovascular diseases

Dental treatment has decreased in many areas where dental services have suffered health service cutbacks, but this, in turn, could dent healthcare budgets in a bigger way.

In the December issue of the Journal of Lipid Research, researchers at the Virginia Commonwealth University (VCU) reported finding that patients with generalised aggressive periodontitis generally had elevated plasma levels of a particularly bad subclass of the low density lipoprotein (LDL) called small-dense LDL. Severe periodontitis is characterised by chronic infection and inflammation of the gums - and this may contribute to these patients’ elevated risk for heart disease and stroke.

The researchers suggest that it may be beneficial to test periodontitis patients for changes in their plasma lipoprotein profiles, so that available medication can be taken if necessary.

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NEW LINK BETWEEN GUM AND CARDIOVASCULAR DISEASES continued from page 1

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surgery at the Albert Einstein College of Medicine, describes it as ‘...a feeding frenzy’.

The industry's apparent push to promote stenting is generally perceived to be a lesser procedure than surgery raises the fear of a possible increase in spread stenting - even in asymptomatic patients who may not be at high enough risk to justify treatment. The procedure is often performed along with other surgeries, that symptomatic patients should be treated using other highly warranted in implementing a stent device in asymptomatic patients. 10 days after admission if I would get level 1 evidence. Level 1 evidence is pretty strong,’ he stated in an interview.

“If you leave patients with a low risk for stroke alone, then the risk of getting a stroke per year is about 1.5%, which is low,’ said Peter R F Bell MD, a vascular surgeon at the Leicester Royal Infirmary in the United Kingdom, and leading opponent to the SAPPHIRE trial. In Europe there is the temptation not to operate on low risk patients, while in the US, historically, such patients have been operated on out of fear that complications in association with the surgical treatment,’ he pointed out, referring to results from the recent Endovascular prostatic artery stenting trials. There has never been a good study showing that carotid stenting reduces stroke rate or death level,’ Dr Voith added.

The industry's apparent push to replace it by a procedure that doesn't require surgery, even in prospective, randomised trials, has many stroke experts alarmed, particularly since the procedure is not without inherent risks, such as embolisation to the brain, a complication affecting up to 80% of patients.

In a scathing rebuttal to Dr O' Sullivan’s defence of SAPPHIRE at the symposium, Dr Bell contended that the status of '5% approved evidence' and its funders investigating lack in equipoise.'It is just not the trial on which there should be a whole trend of treatment, which is what they are suggesting,' A recent Cochrane systematic review found insufficient evidence to support widespread change in clinical practice away from recommending carotid endarterectomy as the treatment of choice for suitable carotid artery stenosis. ‘It is ethical and necessary that randomised trials comparing endovascular treatment with surgery continue to recruit patients,’ authors concluded.

Well, what about the patient? The patient for SAPPHIRE was industry-understand and become knowable- about the risks and benefits. These trials showed that you can treat asymptomatic disease with a stent and death rate of around 2-3%. ‘That's the ball park,’ said Peter A Schneider, Managing Director of the Hawaii Permanent Medical Group, speaking at the symposium. ‘You've got to be in the ball park to have something that I think will be of value to the patient.' In the end, it all depends on how the risks and benefits are phrased by the doctor to the patient. If you tell them, look, I have something that is going to work 95 percent of the time, they'll say they want it. And that can be a stent at this point. It has that kind of success rate,’ Peter Schneider explained. ‘But if, on the other hand, they say you can have a stent, but the risk of stroke or death is going to be twice as high, they'll say ‘No, don't give me the surgery.' So it all depends on how you present the data to them.'

Dr R F Bell, speaking at the symposium, acknowledged that SAPPHIRE did not show superiority of stenting over surgery, but it did show non-inferiority. He stated in an interview, ‘... it doesn't show we should reject stenting in these [high risk] patients, but it does say we should consider stenting and we certainly should be offering that to the patients as a viable option. I personally try to give my patients the data and tell them that this, this, this, almost all - will pick stenting over endarterectomy.'
Germany - The organisers of Medica, the world’s largest medical trade fair, and ComPaMED, the international trade fair for components, parts and raw materials for medical manufacturing, have reported that 137,000 visitors from around 100 countries attended these events in November. Almost 40% of the visitors were from countries other than Germany, and these included a particularly high number from overseas markets such as the USA, India, China or Taiwan, and Arab countries.

Future? and over 1,500 participants gained perspectives on DRGs, increasing competition and demands for the quality care.

ComPaMED had 302 exhibitors this year, visited by around 9,900 people.

The trend towards miniaturisation and even more compact, yet increasingly complex systems was the central theme of the joint stand and Forum of IVAM - Germany’s Professional Association for Microtechnology. Details for 2006: http://www.medica.de. http://www.compamed.de

The industry, with its innovative power, has sent out exactly the right signals countering the discussions about healthcare costs, said Wilhelm Niedergöker, Managing Director of Messe Dusseldorf, who said he had conducted numerous talks with exhibitors during the event. ‘The interest taken by visitors in more efficient and higher quality diagnosis and therapy procedures was enormous and therefore spirits among exhibiting firms were correspondingly high.’

The Medica Media section virtually served as a point of departure for an electronic health card route, the organisers noted. ‘Visitors along this route were able to network with various exhibits covering the card theme.’ Companies explained the functions and procedures associated with the card explained, including, for example, card processes, electronic prescription, data protection, physicians’ digital signatures etc.

Other new innovations viewed by visitors was a heart implant with built-in transmitter that automatically sends cardiac data to a medical care centre; ultrasound devices with optimised sound heads for improved 3-D imaging, and more compact laboratory equipment for low-cost rapid tests at doctors’ practices.

The Congress. There were over 500 speakers and 170 workshops, and much else, and discussions ranged over cancer types; worldwide infectious diseases; pain therapy and disease in old age. ‘The presentation of the latest state-of-the-art research in stem cell therapy by experts from the Düsseldorf Heinrich-Heine University was very well received,’ said Gerd Fischer, Secretary General of the German Society for Medical Diagnostics. ‘The pros and cons had already been exhaustively debated in the run-up and now at the event itself the focus was on an exchange of ideas about current options.’

The 28th Deutsche Krankenhaustag (German Hospital Congress) followed the theme ‘Hospital 2006 - Closure or
Faced with rising costs, diminished resources and growing demands, health systems around the world are under siege and many will be unsustainable within 15 years unless a fundamental change occurs. The crisis, according to PricewaterhouseCoopers Health Research Institute, is prompting healthcare organisations and policymakers to seek urgent solutions in unlikely places—outside their own borders. In the Institute’s recent report ‘HealthCast 2020: Creating a ‘New Normal for Healthcare’, the researchers have identified best practices and unveiled the result of surveys and interviews with 780 health leaders in 27 countries. ‘Everyone we spoke with, in every country, seems to understand that their current health system was not built to last,’ said Jim Henry, global leader for Healthcare, PricewaterhouseCoopers. ‘Most countries have some aspects of their health system that are working, but no one country has the magic bullet. We need to rise above nationalism and test protectionism, learn the lessons of other countries and sectors, and build on the best ideas. What’s clear is that no one government can solve the healthcare problem. It will be up to governments, working together with private industry and consumers who not only have a bigger financial stake but also a greater responsibility in their healthcare.’ The report finds a convergence of trends and solutions in the global healthcare market, including the way healthcare is funded. Countries are moving toward greater shared financial responsibility among the government, the private sector and the consumer, even in historically taxpayer- and employer-funded systems. The researchers also found that consumerism, the use of information technology, incentive realignment and new reimbursement models such as pay-for-performance are soaring globally. Innovations seek to reduce health-care costs and improve access, safety and quality for their citizens.

More than half of those surveyed by PricewaterhouseCoopers expect health spending to accelerate at a greater rate in the future than in the past. Health spending patterns also are becoming more similar among countries in the Organisation for Economic Co-operation and Development (OECD), although US spending remains the highest in the world, and Americans spend 13 percent more per capita on healthcare than the next highest country, Switzerland and Sweden spend 14 percent above the median for OECD countries.

PricewaterhouseCoopers projects that global healthcare spending will triple over the next 15 years to $10 trillion, consuming 21 percent of gross domestic product (GDP) in the US, and 16 percent of GDP in other OECD countries. The report highlights best practices and common trends in health systems around the world - highlighted here in colour.

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PATIENTS IN FOCUS

**AUTOMATICITY PUTS PATIENTS AT RISK**

**United Kingdom** - A new study has raised serious questions about how clinicians understand failures in safety-checking tasks in the healthcare system.

One way to manage patient safety involves challenge-response protocols. This is a process of verbal challenge, made by one colleague to another, as and when a course of action is proposed. This technique of double-checking is also called ‘witnessing’. Errors that occur in this process are typically attributed to negligence on the part of the checker. Automaticity is a term given to skilled action that people develop through repeatedly practising the same activity - such as driving a car.

Writing in Health Services Management Research, Professors Brian Toft and Hugo Mascie-Taylor argue that individuals who fail in this system are the victims of a socio-psychological mechanism. The researchers labelled this ‘involuntary automaticity’. When it occurs, only superficial attention is given and errors happen without the checker realising it.

Given that this situation is induced by the repetition of a job itself, the study suggests that some of the serious adverse incidents in healthcare occur because the verbal double-checking protocols do not provide the level of safety envisaged. The study also argues that the healthcare system, and those who manage it, is responsible rather than the individual clinician. This phenomenon poses a major challenge to the National Health Service and the authors have urged the introduction of measures to reduce involuntary automaticity, thereby reducing the risk to patient safety.

‘Involuntary automaticity: a work-system induced risk to safe healthcare’, by Brian Toft and Hugo Mascie-Taylor, was published in the November edition (vol. 18) of Health Services Management Research (HSMR), a quarterly publication produced by Britain’s Royal Society of Medicine.

**IRELAND’S BIGGEST PATIENTS’ SURVEY**


Founded in 1994, the Irish Society for Quality and Safety in Healthcare, is a not for profit, members-based charitable organisation that promotes quality and safety improvement throughout the Irish health service. It currently has in excess of six hundred members nationwide, and includes public, voluntary and private sector representation, all of whom believe in the benefits of networking and sharing information and best practice in healthcare. The Society also serves as an umbrella organisation for many other organisations involved in the quality in healthcare field and has strong affiliate links with both the International (ISQua) and European Societies for Quality in Healthcare (ESQH).

Its new report identifies certain areas of care and service that are perceived by the patient to be functioning well and others that need improvement. The findings illustrate the challenges that face healthcare service providers in building a culture that puts patients first and values their input, feedback and participation.

Key areas for improvement include:

- Communication issues, including adequacy and clarity of information
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- Patients’ safety and patients’ rights

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The topic of healthcare accreditation appears on the agenda of healthcare conferences around Europe. Why? The principal reason is that the World Health Organisation, World Bank and many other international organisations view accreditation methodology as the most powerful tool available to bring about sustained change for quality improvement in health care organisations. Accreditation and its standards are derived from the health professions for the purpose of improvement and is equally applicable in developed and developing countries.

What are the unique characteristics of the accreditation model of Joint Commission International (JCI)? First, JCI External Quality Evaluation Model (EQuEM) represents, foremost, the clear mission of JCI: to improve the safety and quality of care delivered in health care organisations through the provision of education, publications, consultation, evaluation, feedback, and support. Policy and philosophy underpinning this mission includes: a focus on the patient in the context of their family, using standards that focus on functions and systems rather than people and the risk points of healthcare processes, setting expectations that push organisations toward excellence however are achievable with effort, and creating a process that stresses measurement — what is not measured cannot be improved — and that sets the stage for organisations to establish a sustainable quality framework.

Another feature, by definition, a voluntary process granting recognition for meeting standards that represent improvement in structures, processes and outcomes. The accreditation methodology is based on consensus standards and, in the case of JCI, the standards are developed and maintained by an international task force with representatives from around the world to ensure that those standards can be interpreted and applied in different cultures, under diverse laws and regulations. The standards address hospitals, emergency transport, clinical laboratories, ambulatory care, the care continuum, and disease or condition-specific programmes, and have been adopted by 18 countries (including seven in Europe).

The tools of JCI accreditation are the standards, indicator measures, patient safety goals and education for leadership. The JCI standards are divided into two sections: the first that focus on the patient and their care process and a second section that focuses on the management of the organisation. The on-site evaluation of the standards is a convergent validity model with a physician, nurse and administrator evaluating all the standards, from their own unique perspective, through observ-
MEASURING HOSPITAL PERFORMANCE

In many countries, performance measurement for hospitals is now high on the agenda of policy makers, regulators, payers, patients, and other stakeholders. External drivers include demand for value from payers and the public, increased competition between providers, patient safety concerns, increasing evidence of variation in medical practice, questions about appropriateness and effectiveness of care, and methodological advances in the science of measurement that make assessment and comparison on the basis of indicators more feasible.

In the USA, performance measurement for hospitals has been on the agenda since at least the 1980s, when States started to publish hospital mortality data for coronary artery bypass grafts, and the federal government released hospital-wide mortality rates. In the private sector the Quality Indicator Project, a cooperative programme, began in 1985 to help hospitals understand their performance. Its emphasis on standardised performance measures that reflected important aspects of care and its comparative database proved popular; by the mid-90s, over 1,000 hospitals in the USA were using its performance measures for acute in-patient, psychiatric, and long term care. The Project has shifted its approach in the USA, providing patient-level and disease-specific indicators to its US participants and, since 1992, also serves several hundred hospitals in Europe, using aggregate clinical performance indicators like nosocomial infections in intensive care, or unexpected returns to the operating theatre, for benchmarking purposes. Accreditation and performance measurement are often considered mutually exclusive when, in reality, they are complementary concepts approaching performance from different perspectives. Accreditation tends to focus on structure and process based on intermittent assessment. Accreditation occurs at certain intervals with no, or little, assessment or monitoring of how processes are maintained. On the other hand, performance measurement seeks to measure processes and outcomes on a continuous basis, thus building momentum for ongoing assessment of processes and outcomes of care. Hospitals are to use data, evidence, to drive improvement and, ultimately, cultural change within their organisation.

Over the past five years the USA has moved to a strictly regulated framework of standardised performance measurement for hospitals. National Hospital Quality Measures were developed and implemented. These clinical, patient-level, performance measures focus on certain services or diseases. Currently measures for pneumonia, heart failure, acute myocardial infarction, pregnancy, and surgery are available, with measures for the ICU, childhood asthma, and psychiatric in-patient care to follow soon. These uniform measures serve multiple purposes: The Federal Government requires participation for reimbursement, the Joint Commission made it a requirement for accreditation, and many other stakeholders such as States use the data for public reporting and regulatory purposes. Two trends are of particular importance. First, data from these National Hospital Quality Measures is being publicly reported by States, by the Federal Government, and the Joint Commission and are available for any patient to see. Patients are supposed to compare hospitals’ performance for the areas mentioned, to support decisions as to which hospital to select. However, the jury is still out on whether patients really understand or use this information for decision-making. Second, data is increasingly used for pay-for-performance. Reimbursement levels for a disease are tied to performance levels. Pilot projects are in progress. Challenges include low volume, random variation of performance, and to disincentivise poor performance but offer the opportunity to improve performance.
THE RSNA 2005

Not revolution, but superb evolution

Late in November and into early December, as icy air streamed over the shores of Lake Michigan - affirming the nickname 'windy city' for Chicago - radiologists continued to immigrate here en masse for their biggest annual gathering. This year the Radiological Society of North America (RSNA) held its 91st annual meeting, parallel with the scientific congress and trade fair. The exhibition alone involved 28,700 staff - almost as many people as the 32,800 visitors to the event.

Manufacturers regularly launch new products at this international radiology fair, before introducing them to Europe. On behalf of European Hospital, Guido Gebhardt* toured this important event to report on developments and innovations.

*Hitachi

As usual, manufacturers had every opportunity to show off their latest products. However, the displays were not what you would call revolutionary. Philips' X-ray system, for example, was not specially designed for the event, but was a knock-down version of what they would show in their Amsterdam headquarters. Thus, all the products showed were prototypes.

Dr. David H Hussey, president of the RSNA, indicated that he hopes for closer co-operation between the doctors involved in diagnosis and therapy. 'If diagnostic radiology and radio- oncology co-operated more, this could only be for the benefit of cancer patients,' he emphasised. This is why, he said, he would be pleased if more radio-oncologists played an active role in the RSNA. Over 700 companies presented their latest products at this year's event in Chicago.

The co-operation between Agfa and Siemens is already successful. The Agfa exhibition stand - still adorned with the Siemens logo - displayed Mammomat Novation. The co-operation between the two companies envisages that Agfa will offer their customers the digital mammography system manufactured by Siemens and that in return, Siemens will include Agfa's range of digital storage systems in their portfolio. However, emphasis at Agfa was on its Impax Enterprise, which includes Impax RIS (radiology information system) and the new release 6.0 of Impax PACS as important parts of the electronic patient file.

Aycan, well known in Germany as a pioneer of the DICOM concept, introduced the Xerox Dusk Color 240 - the new flagship product for the printing of X-ray images on paper. The DC 240 prints bones and soft tissue in colour or black and white on DIN A3 or DIN A4 paper.

Barco, manufacturer of display solutions, presented colour monitors with three million pixels. These new, high-resolution colour displays are calibrated with the DICOM-Grayscale. The radiologist can use the same monitor to make a diagnosis viewing images of the lungs, or to view 3-D reconstructions of the heart in colour. Barco's 3-D image display and analysis software, Voxar, impresses with its sheer range of functions - leading to its demonstration at numerous other exhibition stands as well. Eizo was another manufacturer presenting 3 Megapixel displays. All display manufacturers have one thing in common - they do not simply offer the hardware (the panels) but also useful software features. Eizo's LEA (Lifetime Expectancy Analyzer), for instance, can predict the lifetime of the screen's sensitive backlighting.

In May 2005, Medos was taken over by the Swedish Orivius group, a company that offers, amongst other products, complete solutions for primary control units, ambulances and telematic systems for the transmission of patient and vital data from an ambulance directly to electronic patient files used by the hospital information system (HIS). Visus entered into a large contract with the Diagnostic-Network AG, a telediagnosis service provider from Dillingen/Naar, which already provides CT and MRI image analysis to 50 German clinics, day and night. Medtron and Ulrich manufacture innovative contrast media injection concepts for medical imaging. Hitachi used to attract a lot of attention (in the early 1990s) as the supplier of basic technology for Philips Tomoscan computed tomo- graphs (CT), but then they apparently retreated from the European market. However, the firm has returned to Germany with a new product range of computer and magnetic resonance tomographs.

Although Kodak offers a complete product range for digital radiography, the company is a long way from the days when the name Kodak stood for innovation in radiological imaging. Holding a Kodak X-ray, mammography or dry laser film used to be like looking at holiday snaps. However, the new digital, complete product range DR 3000, DR 7500, CR 830 and CR 950 seems to lack that certain something which would make it stand out from the competition. The same fate befell Konica-Minolta. Their strategists reacted too late to new trends. Admittedly, digital radiography has only really achieved a notable turnover in the last three or four years, but the trust that a customer requires in a company would have been built up long before that. However, Konica-Minolta is now also back, with two digital storage systems and a digital mammography scanner.

Compared with Barco, Eizo, Planar and totoke, NEC Displaysolutions is one of the newer players in the medical imaging manufacturers market. Their range of grayscale and colour monitors is adequate, by all means, but there are no particular high-lights. However, Planar can offer just that. Their 30-inch display with four Megapixels, framed by high sheer, black casing, clearly stands out. The landscape format is large enough to display two mages side by side. With this product, the unsightly dividing line that occurs when images are displayed across two monitors has become history. A dream to look at, but at around €10,000 – not cheap!

Philips hit the headlines last year when they acquired the American companies Epic and Stentor. Epic produces hospital information systems. Stentor (digital imaging archive, PACS) is a long-standing winner of the KLAS report, an American classification system for PACS systems. The integration of all imaging systems into the IT infrastructure is part of the vision of this Dutch company. The test-runs of the German versions of Xeurex (Epic-KIS) and Dine (Stentor-PACS) are due to start in 2007/2008. Despite
The fact that it has been marketed for about a year, the magnetic resonance tomograph Panorama 1.0 Tesla manufactured by Philips is still a particular magnet for visitors at the RSNA.

Sectra has released its PACS Release 10.2, which has been adapted to the new requirements of multislice CTs. Computer tomograms with a full resolution of 64 slices produce several thousand cross-sectional images during examination. The ‘Smart Caching’ function of Version 10.2 is aimed in particular at working with large sets of data. Moreover, as of now, Sectra offers a new 3-D application as well as an integrated cardiology solution. The Swedish company’s ‘Microdose Mammography’ system is a digital mammography machine of the highest quality.

The only real surprise for most visitors at the exhibition came from Siemens. For the first time, the Dual Source CT, a computed tomograph with two tubes and detector systems was introduced to the international public. The German premiere happened just prior to this, at Medica 2005. The system is likely to significantly improve quality in coronary imaging. In the field of magnetic resonance imaging, the Erlangen-based company is banking on their two workhorses Magnetom Espree, a 1.5 Tesla System with a gantry opening of 75cm and a gantry length of only 125cm and the Magnetom Trio. The 3 Tesla machine is now also equipped with TIM (Total Imaging Matrix) technology for whole body examinations. Siemens’ combination of the PET scanner and the computed tomograph Sensation 64 is of particular interest, as it facilitates non-invasive imaging of coronary vessels and perfusion studies all in one examination.

Swissray is a Swiss X-ray system manufacturer with considerable success in the US and Eastern Europe. It now offers flat detectors based on silicon technology for its radiography systems. The company uses the tried and tested detectors produced by Trixell, which Siemens and Philips are also using in their systems. The new technology, along with innovative product design, should enable the Swiss company to penetrate the German market as well.

Last but not least, Toshiba. The Japanese have a complete range of X-ray systems, modalities and ultrasound scanners. A regular cycle of innovation ensures up-to-date technology. Be it digital X-ray systems, 64-slice CT or open MR, Toshiba has it all.

All in all, visitors at RSNA 2005 had the impression that the motto of the congress was evolution rather than revolution. All manufacturers have developed their modalities, as well as their IT systems, to an extremely high, technical level over the last few years. The keyword DICOM (Digital Imaging and Communication in Medicine), up until recently a synonym for data connectivity, is hardly mentioned these days. Exchange of data within radiology and interdisciplinary across different areas of medicine is now the reality. So, we can get on with the business of making diagnoses in peace.
Coronary artery disease in diabetes mellitus: The emerging role of drug-eluting stents

By Dr Akhil Kapur of the London Chest Hospital, United Kingdom

Diabetes mellitus is strongly associated with the development of coronary artery disease (CAD) - up to one third of patients attending cardiology clinics have clinical signs of diabetes. In addition, treatment outcomes are significantly worse in the group of patients compared with the general population (restenosis rates [RR] are higher and clinical outcomes are worse). Thus, CAD and diabetes are a particularly challenging problem. Recent advances in percutaneous coronary intervention (PCI) may offer a new approach to treating this complex group of patients.

PCI started with balloon angioplasty, but this was associated with high RR. The introduction of ‘bare metal stents’ (BMS) improved clinical outcomes and lowered RR, but the treatment success of this procedure is still limited in high-risk populations. Drug-eluting stents (DES), which release antiproliferative agents, offer lower RR, and a reduced need for re-intervention. The most widely used DES to date are ‘Taxus’ (eluting paclitaxel) and ‘Cypher’ (eluting sirolimus).

The TAXUS V study - DES in coronary artery disease

TAXUS V compared Taxus with a BMS specifically in higher risk groups, including patients with diabetes, diabetes and MI, and where overlapping stents were required. The study included 356 diabetic patients. Over a 9-month follow up period, Taxus was found to have significantly lower RR (P = 0.0001) and target lesion revascularization (TLR) rates (46% lower than BMS, P < 0.0001) compared with BMS specifically in higher risk populations. Further TLR analysis demonstrated similar results in diabetic patients. Taxus and Cypher are the only two DES to have proven benefit in this high-risk group of patients in both randomized and large registry studies. These findings further support the application of DES in diabetic patients with CAD.

What next?

DES with improved deliverability are now being developed. These include Taxus LibertÈ, which is available in a range of diameters as low as 2.25 mm, launched in Europe in September 2005. These stents are designed to treat small, tortuous vesels that are otherwise very difficult to reach. This should further improve the treatment of CAD in diabetic patients, particularly for their complex coronary anatomy. A paradigm shift away from ‘bare metal’ and ‘soft’ DES for their complex coronary anatomy. A paradigm shift away from CABG to PCI to CABG.

Conclusions

DES offer a major advance in the treatment of CAD in patients with diabetes and further improvements have already been made in DES with improved deliverability such as Taxus LibertÈ. Higher initial procedural costs for DES are expected to be compensated for by lower costs during follow-up, especially in patients at highest risk such as those with diabetes.

REGISTRIES

Cardiac registries provide valuable insights into the meaning of clinical trials in clinical practice. The Canadian Cardiac Registry, the ISAR-DIABETES, DIA-study, SIRIUS, E SIRIUS, SYNTAX, and SYNTAX II studies. The latter, the SYNTAX registry of patients using Taxus, found that Taxus was associated with a 6-month re-intervention rate of 3.1% for diabetic patients, compared with 5.0% for non-diabetic patients. Similarly only small differences were found in the European MILESTONE II registry, where Taxus was associated with a re-intervention rate of 6.2% in diabetic patients compared with 5.5% for all patients at 12-month follow up. The E-Cypher registry demonstrated similar results in diabetic patients. Taxus and Cypher are the only two DES to have proven benefit in this high-risk group of patients in both randomized and large registry studies. These findings further support the application of DES in diabetic patients with CAD.

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Implant for chronic treatment-resistant depression

USA - According to the World Health Organisation, depression is the leading cause of disability in the US, with direct and indirect costs relating to medical expenses and lost productivity due to days missed from work reaching $80 billion per annum. The figures are not surprising, since around 19 million of the country’s adults suffer a depressive disorder, which affects nearly twice as many women than men.

Many patients, particularly those with mild-to-moderate depressive disorders respond to psychotherapy and antidepressant medications. However, some with severe depression do not. 20% of Americans with depression - about four million people - experience treatment-resistant depression (TRD), defined as a major depressive episode that has not had adequate response to at least two different classes of antidepressants.

The new, recently FDA-approved VNS (vagus nerve stimulation) therapy is being used for the long-term treatment of treatment-resistant depression. The indication is specifically for the adjunctive (add-on) long-term treatment of chronic or recurrent depression, for patients 18 years of age or older, who are experiencing a major depressive episode and have not had an adequate response to four or more antidepressant treatments.

Several studies have shown that VNS Therapy may modulate neurotransmitters such as serotonin and norepinephrine in the brain. So far it has been used to treat over 32,000 patients worldwide. While it does not claim to cure depression, some patients have shown ‘tremendous improvement’ of their depressive symptoms.

With a history of 25 years of treatment-resistant depression Charles E Donovan, 47, received the implant during the clinical trial. ‘It changed my life,’ he said. ‘We couldn’t care less about any side effects related to continual vagal nerve stimulation.’ His book, Out of the Black Hole, recounts his experiences with depression.

By Karen Dente

This pacemaker-like device is surgically implanted into the chest. A thin wire is connected to the vagus nerve in the left neck area and guided under the skin to connect with the device, which sends out gentle pulses back to the vagus nerve, modulating activity in brain zones such as the hypothalamus and hippocampus, thought to be responsible for regulating mood.

A flexible wire frame, supporting the pivoting head, operates as a kind of shock absorber, which allows the electrode in the pivoting head to maintain consistent contact along the cartilage surface. The frame also enables the probe to reach parts of the joint surface that rigid probes cannot access.

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Critical Care

Faster Weaning Enhances Patient Care

Intensive care specialist Dr. Philippe Jolliet (right), a senior member of the medical staff of the Medical Intensive Care Unit (MICU) at Geneva’s University Hospitals, recently participated - along with a dozen other physicians in European hospitals - in the multicentre, randomised, controlled study “Computer-driven ventilation reduces duration of weaning”. This involved the use of the software SmartCare, introduced at Medica 2004 by Dräger Medical. Dr. Jolliet has reported that he was not surprised when the results of the 12-month study into the benefits of using SmartCare software on the hospital’s EvitaXL critical care ventilators indicated a reduction in weaning time. However, he said: ‘Even I was shocked by the results. On average, we had cut the time between starting and completing the weaning process by around 50%. If we achieve this while maintaining patients in a pathophysiological comfort zone, and reduce the period when they are most at risk of contracting a nosocomial infection, this has to be a major benefit. Furthermore, if we can constantly tailor the exact level of pressure support to their exact needs, it will reduce the discomfort associated with intubation and assisted ventilation.’

Dr. Jolliet also observed that cutting time spent on the ventilator usually reduces the total length of stay in an ICU. The software could also ‘...help with planning elective procedures if we can be more confident when beds will become free for post-operative recovery’, he added.

However, Dr. Jolliet said that not all cases need weaning via software use. ‘Some only need to be intubated and ventilated for a very short period prior to a natural and speedy recovery and transfer out of the ICU. Others, because of the severity of their disease, associated conditions, and additional complications, such as infection, may need to spend three weeks or more on a ventilator, and therefore be very difficult to wean. I feel SmartCare would be inappropriate for both patient categories. However, there is a large ICU patient population that falls between these two ends of the spectrum, who I would describe as being either average of moderately difficult to wean. I believe these patients would benefit considerably from the use of SmartCare.’

Asked whether equivalent results could have been achieved using his previous weaning methods, Dr. Jolliet replied: ‘We employed a protocol-driven system, and posted the details all around the ICU. It worked well, but relied on nurses following it to the letter. Unfortunately, as patients’ conditions improve, they tend to draw less attention to themselves - there are always plenty of others to distract the nurses - so it was not unusual for certain checks to be missed. This could lead to a missed opportunity to alter the settings and potentially shorten the weaning time.’

SmartCare, he observed, represents a ‘real world’ approach to protocol-driven weaning. ‘It is, after all, based on the pooled clinical experience of some of the world’s leading intensivists and pathophysiologists’ he exclaimed. Using the software means the EvitaXL ventilators can be left to control the process, providing medical teams with more time to patient care and other tasks, he pointed out, adding that some of the nurses had joked that the system would leave them with nothing left to do. Significantly, the nurses had reported finding the software easy to follow, despite early on blaming any complications they experienced on that same software.

In addition to weaning, Dr. Jolliet said he saw a potential for elements of the software to be used within non-invasive ventilation, where its ability to titrate the exact level of pressure support required would lead to far more patient comfort.

In summary, he compared the software with an autopilot on an aircraft. ‘95% of the time, he said, it could do a good job, but it could not quite replace the hands-on approach needed when landing in lashing rain with a strong side wind. So, he quipped, he and his colleagues would not start to look for careers beyond the ICU: ‘Many aspects of patient care will always need the human touch.’

Before a patient session begins the clinician enters a menu to tailor the ‘Zone of Respiratory Comfort’, which is defined by the patient’s breathing frequency, tidal volume and end-tidal CO2.
T

he PiezoLith 3000, launched by Richard Wolf GmbH, has a new high-performance piezo power source that enables fast, accurate and effective high-energy therapy, with minimum tissue damage. The firm reports the following benefits:

- Multifunctional diagnosis and therapy centre for urology and ESWT
- Unmistakable diagnosis and therapy in ESWL and ESWT
- Best possible patient positioning
- Short treatment times
- Continuous location during treatment
- No anaesthesia
- Simultaneous ultrasound and X-ray location with real-time display
- Radio translucent
- Optimum working height
- When necessary, auxiliary procedures can be carried out immediately with the X-ray unit

Richard Wolf also adds that it is ‘Right on target even with small urinary stones.’

New features include the X-ray unit with LithoArm, for precise, stable attachment of the therapy source. This enables the C-arm to be used as a stand-alone unit, by swinging out the therapy source from the X-ray path.

The new shockwave source has a multiple focal area and selectable focal zone, which allows focal adjustment to the stone size, for better stone disintegration, as well as treatment without anaesthesia.

The therapy head is easy to remove and features two layers of piezo elements and an integrated ultrasound transducer for real-time monitoring.

The Comfort Stretcher has a low table height that allows even low-mobility patients to get on easily. It is also multi functional, allowing auxiliary procedures combined with the X-ray unit.

The integrated operating theatre

Richard Wolf is an early innovator in minimally invasive surgery (MIS), well-known for its development of core - a complete operating theatre concept that centralises control via a modular, integrative structure. This networks individual theatre devices and provides interactive monitoring. The widely adopted communications standard CAN Open BUS protocol is used as an excellent platform for continuous integration of further components, the firm points out.

The networking of the devices and the unique visualisation and operating concept allow the centralised control of the entire system from one central operator panel, core brings with it a further significant increase in efficiency in the form of voice control that is not dependent on the speaker. This allows the direct operation of devices such as cameras, light and operating theatre (OT) table from within the sterile field of the operating theatre and provides the basis for immediate intra-operative preparation of the OT report. The consistent use of this module ensures the immediate postoperative availability of the electronic operating report, including images of findings, and allows increased efficiency in the document creation from a forensic perspective. (Medimage (MICS) - With Medimage, complete, digital patient picture and document management is possible. Starting from workstations for picture acquisition, processing and archiving and progressing to server, network and telecommunications solutions, it provides every form of image data management, as well as tailored, customised solutions. Medimage unites all types of pictures, films and reports from radiology, cardiology and surgery. The possible intra-operative visualisation of pre-operative image data (X-ray, CT) on suitable monitors in the operating field of the physician plays just as great a role in cost reduction as in increased operating safety.’

The system can be variably installed in ceiling supply units, distributed nurse stations and mobile system trolleys, and theatre tables and other peripheral devices can be integrated. The core team provides specialist consultation and planning services, and additional services include the organisation of installation ‘... and commissioning of the customer’s system solution and formulation of tailored service concepts’.
Luxembourg - Next year's Med-e-Tel - the International Exhibition and Conference for eHealth, Telemedicine and Health ICT - will present a multitude of ICT healthcare applications for debate. eHealth standardization and interoperability issues will be tackled by the IHE initiative (Integrating the Healthcare Enterprise) whose experts will explain the IHE process and the industry's role in this, and what IHE has to offer for Regional Health Information Networks. The European Commission will use Med-e-Tel as a forum to present results of recent health ICT research, and this, together with European eHealth projects (e.g. standard and interoperable satellite solutions to deploy healthcare services over wide areas), knowledge sharing and decision support for healthcare professionals (DocHand), and new generation telemedicine services for homecare (Interlife). The role of advanced technology in global healthcare challenges and opportunities will be addressed by the Telemedicine and Advanced Technology Research Centre (TATRC), an element of the US Army. A returning topic at Med-e-Tel is 'eHealth for Developing Countries'. eHealth is an important tool to cope with the specific healthcare problems that exist in the developing world (shortage of qualified doctors and specialists, AIDS/HIV pandemic, etc.). Previous Med-e-Tel editions already saw participants from El Salvador to Tanzania and from Zambia to Indonesia gaining a wealth of information at the event. The 2006 session will again draw large numbers from developing countries. This session is co-organized by the World Health Organization (WHO), International Telecommunication Union (ITU), International Society for Telemedicine & eHealth (ISfTeH) which are at the forefront of telemedicine and eHealth implementation in the developing world.

In addition, the role of satellite communication and space-based technology applications, especially for developing countries, will be explored by the United Nations Office for Outer Space Affairs (UNOOSA).

The information, communications and technology sectors are an integral and important part of telemedicine and eHealth landscape. “What are the implications of eHealth for the ICT industry?” and “What will (or should) be the impact of eHealth on ICT regulation and policy?” are questions that form the basis of a session that the International Telecommunications Society (ITS) is presenting in the frame of Med-e-Tel 2006. ITS regroups professionals and researchers from the concerned ICT industries. The Luxembourg Institution for Healthcare Research (CRP-Sante) will conduct a regional seminar aimed at hospital, health insurers, industry, and policy makers. The seminar will look at how health IT leads to new solutions, patient empowerment, and new marketing through the hospital strategies for hospitals, mutualities and insurance providers and the industry. Business cases will illustrate successful applications in automated appointment bookings, online consultation of patient records, CRM in the hospital, e-learning, online patient self transfer, mobile applications, e-prescribing and health portals.

The above conference sessions will be complemented with various additional sessions on the topics of home telehealth, disease/health management, legal and ethical aspects of eHealth, and practical telemedicine and eHealth applications in various medical disciplines.

The Med-e-Tel exhibition floor will showcase medication compliance products, imaging/PACS systems, home telehealth and remote monitoring systems and services, clinical software packages, electronic medical records, results of telemedicine and eHealth projects, and much more.

Details: info@medetel.lu or www.medetel.lu

As the global healthcare industry increasingly moves towards integrated care, there is a growing trend among hospitals to replace outdated systems with modern and comprehensive hospital information systems (HIS), writes research analyst Konstantinos Nikolopoulos, research analyst at the global growth consultancy Frost & Sullivan. The goal is to have sophisticated solutions in place that include both clinical and business modules and support clinical as well as business functions. ‘Hospitals and vendors alike are beginning to recognize the actual business benefits that the sum of the functions of modern administrative and clinical systems can bring to healthcare organizations,’ he adds. ‘With administrative systems increasingly incorporating advanced capabilities and offering greater functionality, administrative software vendors can look forward to a whole new range of opportunities.’

As implementation of HIS progressively continues in major European markets such as the United Kingdom, Germany and France, F&S believes that the hospital administrative systems market will see steady growth, increasing from €1338.9 million in 2004 to €2069.0 million by 2010, at a compound annual growth rate (CAGR) of 7.5 per cent from 2004-2008.

‘Investing in back-office administrative applications makes eminent business sense as it can give hospitals a strong competitive advantage. These modules more or less form the foundation for electronic medical records (EMR), picture archiving and communications systems (PACS) and other clinical modules. In fact, hospitals cannot really move to full EMR, PACS and other clinical systems implementation without first having a modern administrative system in place,’ the report points out, adding: ‘Therefore, doctors and hospitals would do well to ensure that they first implement these building blocks, even though the appeal of clinical modules, which are directly linked to enhanced quality of care, might be greater. Hospitals that follow this approach will be able to take advantage of the full benefits of modern software.’

The report discusses many interesting aspects of IT upgrading (including progressively complex billing processes due to DRGs, pointing out that HIS developments in Europe tend to be ‘patient-related’ rather than billing-centric, which can create difficulties for international vendors in terms of adapting US products for use in Europe and vice versa).

A virtual brochure, which provides manufacturers, end-users, and other industry participants with an overview of the latest analysis of the European Hospital Administrative Systems Market (BS62-48), is available. Simply send an e-mail to Radhika Menon Theodore, Corporate Communications, at rtmtheodore@frost.com which must include your name, company name, title, telephone number, fax number and e-mail address.


A co-operation agreement between T-Systems SFH GmbH and the Health Group of Kodak GmbH will combine the companies’ complementary hospital information systems (HIS) and PACS/RIS Solutions, Kodak Euclid GmbH’s resources, so that hospitals can now benefit from KIS/RIS and PACS. The firm’s report states: ‘The certified interfaces will benefit customers by avoiding nuisance, loss of time and, not least, loss of money.’ Announcing the agreement at Medica, in November, they also said this is a first step towards a countrywide common archiving solution for Germany, which healthcare institutions may either manage themselves, or handle via outsourcing services. T-Systems - The information and communication technology (ICT) firm has taken care of the corporate customer segment of the Deutsche Telekom Group since January 2005. Employing 51,000 co-workers in over 20 countries, the company reported 13 billion euro in sales in the fiscal year 2004.

Kodak Health Group - IT products include PACS, RIS, company-wide and division-wide medical information systems, computed radiography systems (CR), digital radiography systems (DR), laser imagers, mammography systems, and X-ray film systems for general X-ray diagnostics.
THE PAINT THAT KILLS
Nanotechnology combats MRSA

A synthetic surface coated with biocide. Colonies of Staphylococcus aureus are coloured red. The untreated control sample (left) shows uninhibited cell growth. The coated sample (right) shows a 100 times reduction in the number of germs. The test was carried out according to guidelines for spray tests.

Although physically very small bacteria, such as Staphylococcus aureus, often wreak havoc in hospitals and can cost around €37,000 per case to treat. Area and coverage rates are a thousand times smaller and these are now being used in paints and coatings to wipe out bacteria. “The effect is mainly based on the well-known antibacterial properties of metallic silves, combined with the characteristics of nanoparticles,” explained Helmut Schmid, chemist and head of the energy systems department at the Fraunhofer Institute for Chemical Technology (Germany), which developed the new technology with paints/coatings manufacturer Bioni CS GmbH. “In September, the first commercial product using this technology - named Bioni Hygienic - was launched at a nanotechnology meeting in Dubai. ‘Over a hundred manufacturers are interested in fitting their products - catheters and heart valves, bone and dent implants - with our technology,’ Helmut Schmid reported.

PROJECT ISIS
The endoscope cleaner

The UK firm Labcare Systems Ltd has launched a new Automated Endoscope Reprocessor (AER), which “…radically redraws the performance and usability limits for this type of instrument,” the firm reports. ‘Developed as Project Isis, the new unit will still be the only AER to offer users a choice of detergent and disinfectant type and be constructed throughout from anti-microbial coated materials.’

The unit’s BioCote anti-microbial coating inhibits bacterial growth, and the machine meets the HTM 2030 & prEN ISO 15883 washing and validation requirements. ‘A kinetic cleaning process ensures thorough cleaning that does not depend on the presence of detergent,’ the firm adds. ‘An elevated temperature capability ensures that optimum operating conditions can be achieved for every detergent and disinfectant type. Process efficiency is also guaranteed by automatic leak testing of every endoscope, individual monitoring of each channel throughout the cycle, thorough rinsing after the disinfection cycle to ensure that chemicals are not carried across to the next patient and an automatic channel drying cycle.’

Although with a footprint of under a square metre, the Isis can take one or two endoscopes on individual load carriers. Washes can be either at room or elevated temperatures. ‘The endoscope cleaner by Design is being increasingly adopted.

HYGIENE & WOUND MANAGEMENT

NEW

WOUND TRACKING SIMPLIFIED

T he more accurately the rate of wound healing is documented, the faster non-responsive wounds can be identified. A percentage wound area reduction of less than 20-40% over the first two to four weeks is a reasonable indicator that the wound is showing a low response to treatment.

Methods of tracking wound progress include length and width measurements and counting grid squares. However, the most accurate method is to measure changes in precise wound area. Visitrak, a new digital system launched by Smith Nephew, is likely to simplify the task of wound measuring considerably.

The company reports that it provides accurate, reproducible data for tracking wound progress. Components:
- Visitrak Digital - a neat, battery-operated portable digital tablet to help measure the area, length, width and depth of wounds. This produces a visible record of wound dimensions by converting traced lines into a true area measurement, which is then used to calculate the percentage area change since the last measurement.
- Visitrak Grid - This transparent, three-layer sheet is placed over a wound, and the edge of the wound is traced, using a permanent marker pen. The white sterile backing of the grid, which creates a barrier between the grid and wound, is then peeled away and disposed of as clinical waste. The tracing grid is placed on the Visitrak Digital and the traced lines of the wound are followed with the supplied stylus. When the outline is completed, the device beeps and displays the area measurement in cm² in its digital display. Functions are also provided to allow calculation of percentage wound area that is necrotic, and width and length measurements.
- Visitrak Depth - This disposable, foam-tipped, sterile depth indicator is placed into the deepest part of the wound and depth is measured according to the scale.

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Although with a footprint of under a square metre, the Isis can take one or two endoscopes on individual load carriers. Washes can be either at room or elevated temperatures. As a dual-sided unit the Isis can be installed as a pass-through type design between a pre-process-ing area and clean storage facility - particularly useful in new-build projects in which the pass-through design is being increasingly adopted.
BALKAN CLINICAL LABORATORY FEDERATION (BCLF) 2005 held in September, attracted over 250 clinical laboratory professionals from 14 countries to the venue in Tirana, Albania.

Dr Cojocaru himself presented "Asymptomatic chronic hepatitis with C virus associated with antinuclear antibodies and ischaemic stroke", We do not have the space to highlight all those he mentioned in this report. However he did point out:

For the further advancement and collaboration in Balkan region, an active inclusion of many European scientists was of great significance.

During the BCLF Executive Board Meeting Professor Nada Matić-Singer (Serbia & Montenegro) was elected President of the BCLF (for three years).

The 14th BCLF meeting will be held in Sofia in September 2006.

During the General Assembly of Romanian Society of Laboratory Medicine, last September, Professor M Cucuianu, of Cluj-Napoca, was elected honorary President, Prof. Gheorghe Benga became President, and Manole Cucuianu was elected Vice- president of the Society and IFCC/FECS National Representative. Dr Cojocaru subsequently reported on several Balkan events.

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The opening ceremony, and speeches by Professor Anila Balo, president of the meeting, Prof. T. Gruen, the BCLF president, and Prof. V. Blaton, the FECSC president, were followed by two keynote plenary lectures, from V. Blaton (Belgium), speaking on the cardio protective effect of HDLs, and Dr D. Griffiths (UK) on the role of Bcl-2 into atherosclerosis research, diagnosis, prevention and treatment in the protein Bcl-2.

Dr Cojocaru reported, adding that the research studies that followed had contributed to the advance by numerous new and interesting observations, studies, and discoveries in all laboratory medicine branches.

Dr Cojocaru presented on Live analysis, laboratory technology and biotechnology. And coupling them with universities and redefining the roles of companies that need representatives to discuss the latest applications with companies that need representatives to discuss the latest applications with academic researchers and experts. He said: "Can we reduce treatment costs?" It is an open question whether we can reduce treatment costs. In Romania, auto-immune diseases are reported as a result of new, efficient methods for treating diseases.

The main topics, he said, encompass laboratory medicine, held under the auspices of the Romanian Academy of Sciences and Vasile Goldiș West University, Arad, which was attended by around 200 scientists.

The meeting's focus was the postgraduate education program. "Everything you do is to stay ahead of changes in clinical laboratory science, medicine and management. The main topics, he said, encompassed laboratory medicine, investigative discipline for disease diagnosis, and traceability and standardisation in the European concept of laboratory medicine. Among the many outstanding plenary lectures (too many to report on this page), Dr Cojocaru pointed out: "I think the lab is becoming a core competency, and clinical and laboratory science, medicine and management." How can they be used to reduce treatment costs? In Romania, autoimmune diseases are reported as a result of the latest methods for treating diseases.

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**Help for Alzheimer’s carers**

Those who care for relatives with Alzheimer’s disease often pay a high price in terms of increased demand, stress and personal distress. This book is a treasury of powerful ideas, information, and techniques designed to emotionally strengthen the person who cares for someone with Alzheimer’s disease.

*Strength in Caring*, a new 244-page book, has been written to help them. The author, Mark Matloff PhD, is a psychologist in private practice, who has over 28 years of experience. Since his graduate studies in gerontology, he has worked with adults, elderly clients, nursing home residents, Alzheimer’s caregivers, and a large number of support agencies. People who care for a person with Alzheimer’s disease have to deal with two challenges: the practical demands of care-giving, and the emotional and psychological toll of extended nurturing,” Dr Matloff points out. The chapters cover areas such as: medical and legal aspects of the disease; where to go for more help; psychological approaches to gain more personal power and control of their stress; dealing with grief; combating the negative feelings of depression, self-blame, self-pity, hopelessness, anxiety, anger, and guilt; turning perfectionism into acceptance; going from procrastination into action; stress-busting building happiness; and constructing a working plan for empowerment. Each chapter contains an overview of a particular problem, followed by ideas, techniques, and/or powerful questions that caregivers can use to cope and help themselves.

In addition to his psychology practice, US-based Dr Matloff is a consultant, coach, and adjunct psychology professor. He has conducted public workshops, written a weekly newspaper column, and been featured on Syracuse TV and radio. In November, he was the keynote speaker at the ‘Power Caring: Rising to the Challenge’ workshop put on by the Central New York Alzheimer’s Association and Onondaga County Department of Aging and Youth.

ISBN 1-59800-162-0. Price: $18.95

**Ebook website: www.StrengthinCaring.com**

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**MBA – International Hospital Management Option**

The FIBAA-accredited MBA programme is run by our academic partner HfB - Business School of Finance and Management, a private University with an ultramodern campus in Frankfurt/Main, Germany.

The programme is designed for experienced healthcare professionals worldwide. Eight mandatory modules, each lasting 9 days, are spread over an 18-month period at study locations worldwide, such as Germany, United Arab Emirates, UK, Austria, Singapore, Japan or China and the USA.

On successful completion, business, medical or engineering graduates with 3-5 years of professional experience will gain a Master of Business Administration degree in International Hospital Management.
**Patient-friendly diagnostic tools**

Zellamed, of Zella-Mehlis, Germany, which has produced medical instruments since 1884, specialises in stethoscopes and reflex hammers for the newborns, children and adults. All of this firm’s high-tech instruments present a face.

The ‘Trabant’ child stethoscope is a very small, double ring stethoscope with a soft, warm, 35-mm external ring, and an internal ring that measures only 15 mm diameter – which is covered with an antibacterial coating. The firm reports that this stethoscope readily adapts to the dermal anatomy of infants - from premature babies to seven-year-olds. The firm’s ‘Satellite’ - a 45:25 mm double silicon bell - has been developed for the ‘preemies’ and adult patients. The universal ‘Kosmolit’ has a very double bell and intercostal membrane.

The firm’s hammers have a flexible handle, so that very soft areas can be tapped, and they have red/green eye-check and Babinski-reflex. Eight different weights are also available for each user, from 50-125 grams. The firm also reports that it produces very soft bumpers, with its original child-friendly look.

**Easier births for all**

The aesthetic, functional Ave Delivery Bed provides patient comfort as well as meeting the professional needs of a delivery team. New technical developments include the asymmetrical positioning of the lifting post, very low minimum height and an entirely new concept of foot adjustment, making this patient handling easier during delivery. The design, plus materials used, speed up adjustments, cleaning, and ultimately servicing.

The many, Ave Delivery bed accessories allow for conventional or alternative positions: recumbent on back; half-seated; on all four limbs-back; lying on the side; suspended bent-knee, and bent-knee with partner’s support. Details: www.borcad.cz

**Automated deliveries**

The innovative TransCar LTC 2 Automated Guided Vehicle (AGV) has an on-board IBC that stores navigation/destinations information. The system also includes radio communication, and the new network-compatible TCMS control (TransCar Management System) with visualisation.

After the daily workflow - plus any ad hoc itineraries - are downloaded from a central system controller, suppliers such as medicines, meals, linen, bulk supplies and trash are loaded into containers and placed into the stations. Jobs are automatically generated by reading the specific targets from RFID-tags and are automatically assigned to vehicles. The vehicles pick-up the load fully automated. Then, using its on-board electronic map and laser guidance technology this intelligent vehicle travels, at a walking pace, to its pre-programmed destinations. Although these may be on different floors of a hospital, or in other buildings within the complex, TransCar navigates its way, through narrow aisles and narrow pass-overs-by, and, adds its manufacturer's Swisslog, it will safely interconnect vehicles. It is capable of navigating its way, through narrow aisles and narrow pass-overs-by.

**Intelligent vehicle distributes supplies aided by laser technology**

**Latex allergy prevention**

Natural Rubber Latex (NRL) is still the recommended choice for barrier protection. However, at the Medica trade fair this year, Ansell Healthcare, which specialises in hand barrier protection, pointed out: ‘Scrubbing with soap and anti-septics combined with continued glove use (which can result in soggy, easily eroded skin) contributes to attacking healthy skin’s protective barrier. The resulting dry, cracked skin opens a migration path for irritants, allergens and micro-organisms.’ At the fair, Ansell presented three new approaches to such glove-related allergies, which include information, prevention, and alternative materials. (To provide information, the company has also launched a multi-language international online educa- tional program: www.anseilleu- rope.com).

Improving on prevention, Ansell has produced NRL gloves with an integrated hydrating solution - HydraSoft. This helps to protect skin’s natural barrier. The firm also pointed out that HydraSoft improves the comfort and flexibili- ty of the neoprene, accelerator-free product Dermalfurtra, also used in the glove, and explains that this is a unique formula of neoprene that is free of vulcanisa- tion accelerators - a source of Type IV allergy.

Laboratory tests of the Ansell High-Temperature Post Washing Process indicated that this development has not reduced the NRL allergen content of NRL gloves in some cases by over 20 times more than DPNR (Deproteinised and purified natural rubber latex).
into space

Thai award for cancer researcher

Professor Harald zur Hausen, 69, former Chairman and Scientific Member of the Management Board of the German Cancer Research Centre (Deutsches Krebsforschungszentrum, DKFZ) has won this year’s Sir Roy Calne Highness Prince Mahidol of Songkla Award (worth US$ 50,000) for his contributions to public health. In January 2006, King Bhumibol Adulyadej of Thailand will present the prize, on behalf of the Prince Mahidol Award Foundation. Prof. Zur Hausen’s cancer research is focused on papillomavirus, considered the cause of cervical cancer. The Deutsches Krebsforschungszentrum has fostered scientific relationships with Thailand for some years. In 1995 the Centre concluded a cooperation agreement with the Chulabhorn Research Institute covering a joint project to study the chemical constituents of Thailand’s flora. The Thai Princess, Professor Chulabhorn Mahidol, visited the DKFZ in October 2000 to learn about research into natural substances that can prevent or slow down the development of tumours. She also gained an overview of the diagnosis and therapy of lung cancer, and of cancers that affect women. With this transfer of knowledge, the DKFZ is supporting the development of a cancer centre in Bangkok.

Prince Mahidol of Songkla, father of the present King of Thailand, was responsible for modernizing Thailand’s healthcare and health education systems. In his honour the Prince Mahidol Award Foundation was founded in 1992 and the prize bearing his name was introduced. The Deutsches Krebsforschungszentrum in Heidelberg (German Cancer Research Centre, DKFZ) systematically investigates the mechanisms of cancer development and works to identify cancer risk factors. 90% of the centre’s finance comes from the Federal Ministry of Education and Research and 10% from the State of Baden-Wuerttemberg. It is a member of the Helmholtz Association of National Research Centres (Helmholtz-Gemeinschaft Deutscher Forschungszentren e.V., HGF).

HEART CAMPAIGN WINS AWARD

The Geneva-based NGO, The World Heart Federation, and Cohn & Wolfe, an international public relations consultancy, have received a Third Sector Excellence Award for the international campaign, ‘A Heart for Life’, focused around their World Heart Day campaign. In 2004, over 330 articles and broadcast features were generated, reaching over 395 million parents, children and adolescents with educational messages about the risks of unhealthy lifestyles and the link to heart disease and stroke.

During World Heart Day (involving over 100 countries) in Brazil, for example, participants in a walk carried red heart-shaped balloons to a city park where they were given fruit, tips on living a healthy lifestyle and a free yoga and dance class; in Egypt, text messages (SMS) containing health tips were sent to cell phone users by a mobile network company, and in Cameroon over 800 people received free screenings for obesity, diabetes and hypertension.

The winners
1st: Rosalina Grilo, for ‘Over 600,000 Portuguese people suffer from COPD’ published in Saúde Publica, Portugal.
2nd: Michael Baggele for ‘When air is in short supply, give the lungs a chance to breathe deeply again’, published in Neurowelt, Germany, and in Alam Al Sabah, 3rd, Riwa Al-Atrash, for overviews on COPD, for Future TV, Alam Al Sabah, Sohtak, in the Lebanon.

Journalists raise COPD awareness

Chronic obstructive pulmonary disease (COPD) is the fastest growing cause of death in the world’s advanced economies and projected to be the world’s third leading cause of death by 2020. Early diagnosis and treatment can greatly improve the quality of life for COPD patients, yet many are unaware they have the disease - up to 50% of Americans and 75% of Europeans with COPD are estimated to be undiagnosed. Indeed, the number of people who know about this disease is low ‘...which is why the media play a crucial role in raising awareness and educating the public about COPD,’ said Leonardo Fabbri, Professor of Respiratory Medicine, University of Modena & Reggio Emilia, Italy, and Chair of the Judging Panel for the annual Eloquium awards for communication, presented by the pharmaceutical firm Boehringer Ingelheim.

This year, a panel comprised of international COPD experts and healthcare media specialists judged 69 submissions from 17 countries.

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tunity to increase their competitive advantage by using the space environment as a platform for applied R&D and technology demonstrations,’ ESA pointed out.

With the co-operation of the European Commission, the four-year SURE project will enable ESA to broaden access to the ISS to a wider international community. Priority will be scientists, small & medium enterprises (SMEs) in the new European Member States (EU10), and Romania and Bulgaria.

ESA Astronaut Frank de Winne described his life and work in space and spoke of research activities currently performed onboard the ISS. Speakers from ESA and the European Commission also introduced the SURE project. Future projects will be selected on the basis either of scientific excellence or of their potential for industrial applications. Details: www.spaceflight.esa.int/sure.
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