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REFLECTIONS ON HC2010

A report on the health informatics conference (HC2010), which this year was held in Birmingham.

ROBOTIC SURGERY

Robots have been involved in surgery for over 20 years. This article discusses their history and future in the field of health informatics.

GROWING UP

A look at the NHS Infrastructure Maturity Model (NIMM) and how it can improve the quality of IT.

TELEHEALTH

A report on how telehealth is making a difference both in nursing and in healthcare in general.

CENTRAL TO SUCCESS

Nicola Bedlington explains why patient involvement is central to eHealth success.

GOALS FOR THE EFMI

Simon de Lusignan shares his aspirations and goals as EFMI rep.

EVENTS ROUNDUP

A roundup of forthcoming events.
NHS IMPROVES SERVICES

NHS Direct pushes on with further development of online services

NHS Direct is working with a consortium of leading IT and health specialists to enhance its web and digital services, with a new suite of online clinical assessments available from the summer.

Direct services through the internet every day. These will be syndicated to NHS Choices, DirectGov and a number of consumer health sites in order to achieve maximum reach.

Online health assessment

NHS Direct’s existing web services include an online assessment, available at: www.nhs.uk/nhsdirect and a number of online symptom checkers covering mental health, men’s sexual health, contraception and colds and flu. The new platform will mean that more topics can be developed and existing tools can be enhanced to give patients a more advanced personalised experience, using links to other medical websites and forums.

Matthew Garwood, Associate Director of Multi Channel, said: ‘This is a strategically important project for NHS Direct and we are delighted to be working with these world class service providers to lay a foundation for the future of digital remote care. The new online assessments are going to provide a service that will change the way people interact with the NHS. Initially the services will be available via the web, but in time they will be available on multiple channels from mobile devices to IPTV and games consoles.’

World class consortium

NHS Direct is predominately recognised as a telephone health information and advice service. Providing better access to this helpline and website will ease the pressure on those healthcare providers in high demand, such as ambulance services, A&E departments and GP surgeries.

Government’s radical agenda for setting government data free

As part of the government’s radical agenda for setting government data free, patients and the public will be given more up-to-date information about their local hospital. The Department of Health has recently published weekly hospital data on MRSA, bloodstream infections and C. difficile. Previously, data was only published monthly and by NHS trusts. From early July, infection figures for every NHS hospital in England will be updated on data.gov.uk weekly, giving statistics for each of the previous 12 weeks.

Patient concerns

Patients are concerned about healthcare associated infections. The data will therefore provide vital information to help them make informed choices about their healthcare. It will increase transparency and allow people to see how well their hospital is tackling infections and hold them to account.

This new move will help to drive up standards by giving patients the information they need to compare and choose hospitals. Better quality care can lead to financial savings for the NHS, as lower infection rates mean patients spend less time in hospital.

Confidentiality

The Department of Health will also explore how to provide data on other infections and will look at whether information could be published at department or ward level while respecting the confidentiality of individual patients.

Content management system, Cascade, helps Welsh NHS websites

Across Wales, NHS organisations are benefiting from a content management system developed in-house that allows them to easily publish local health information on their websites.

Cascade

The system, known as Cascade, is developed by a central web team in the NHS Wales Informatics Service and offers the facility to upload information in English and Welsh.

According to Stephen Price, Head of Web and Screening Services, ‘Developing software in-house involved staff in its development and draws on the expertise of IT staff in Wales. Programming experts work closely with staff to develop sites and the web team have regular contact with content managers should they need any assistance along the way.’

Community Health Councils, Health Boards and other NHS Wales organisations including Public Health have enjoyed the benefits of using Cascade for the last 12 years.

A large proportion of GPs are boycotting the Summary Care Record

An investigation for Pulse recently revealed that GPs are boycotting the rollout of the Summary Care Record in droves, in a move that casts serious doubt over the rollout of the project.

Among practices specifically invited to join the rollout, one in six has refused to do so, according to figures obtained under the Freedom of Information Act from 91 PCTs. In 36 areas, which have begun the rollout and provided complete figures, 1,732 practices have been invited to participate – with 286 so far deciding to take part.

In some areas, half or more of practices have refused offers to sign up amid fears over confidentiality issues, lack of patient awareness and the perceived huge workload in uploading records.

In some areas, PCTs appear to have ridden roughshod over GPs’ concerns and have written to all patients to offer them a care record without the backing of some local GPs.

Further investigation

In some areas, PCT support appears to be waning: for example, Torbay Care Trust have no plans to begin a local rollout until at least the end of 2011. The investigation also revealed huge variation in spending on the care record rollout. While some PCTs claimed to have spent nothing or to have incorporated costs within existing budgets, others have spent thousands on training, project management and advertising.

One number

Hospital staff from all across Wales are starting to benefit from a new service desk and one single number dial for IT support

The new service desk, which is using software developed by NHS Wales IT staff, is being piloted and tested by Hywel Dda before being rolled out across the region.

The software, known as Servicepoint, enables IT service desks to manage calls for services supported both locally and nationally and facilitates the seamless transfer of calls between local and national support teams, allowing them to provide a faster and more efficient service to users.

ContactPoint ends

The controversial children’s database ContactPoint is to be scrapped by the new government, the Conservatives and Liberal Democrats have revealed. The coalition agreement published by the two parties outlines the key policy issues that the new government has agreed to implement.

It says ContactPoint will be scrapped alongside the ID card scheme, the National Identity Register and the next generation biometric passport. The plan to scrap ContactPoint is included in what the coalition agreement describes as ‘a full programme of measures to reverse the substantial erosion of civil liberties under the Labour Government and the previous Labour administration’.

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HC2010 took place at the end of April at a time of considerable uncertainty. The imminent general election and the undoubted upcoming period of financial restraint made the discussions and networking all the more important. John Bryant, Sheila Bullas and Jean Roberts report.

Any participant who thought that, whatever the outcome of the election, it would be business as usual was convinced otherwise by the end of the event. A refreshing realism was evident from most participants. Matthew Swindells’ opening comments about ‘re-inventing [health] informatics as a driver of progress’ were frequently re-stated by other speakers. This has never been more pertinent.

Professor Denis Protti, international observer of UK health informatics for many years, addressed the question of whether business as usual was convinced otherwise by the end of the event. A refreshing realism was evident from most participants. Matthew Swindells’ opening comments about ‘re-inventing [health] informatics as a driver of progress’ were frequently re-stated by other speakers. This has never been more pertinent.

He spoke of many of the innovations that were purely accidental: anaesthesia, cellophane, smallpox vaccine, stainless steel, penicillin etc. On the contrary, quality and productivity improvements rarely occur by accident: they are planned. He reflected on how to re-establish social sustainability using contemporary technologies and having both NHS and input from ‘the public/community’. He cautioned us that ‘information now available [to health practitioners] in such quantities, increasing at such speed and with a growing expectation of action could prompt knee-jerk reactions, which he referred to as ‘terrorists’. These he asserted may be as great a threat to society as ‘terrorists’. He considered it useful to ‘introduce a speed limit in order to civilise IT’. An idea that could provide a useful concept to the next phase of NHS IT!

Gwyn Thomas, health information leader for Wales, described, in his pragmatic style, how the Welsh programme of integrated information for integrated care has evolved on a concept of ‘more for less’ and social architecture that maintained trust between the public and professionals. He thought, provokingly stated that we must be ‘patient and be a patient’ and that ‘gaining trust is a contact sport’. The delivery achieved by Wales becomes much more pertinent in the current circumstances.

Aidan Halligan, a senior clinician who was previously a Senior Responsible Officer for the National Programme for IT, gave a powerful presentation urging us and the NHS to ‘rediscover lost values’. He made the case that people have ‘under-estimated the power of culture’, which he suggested ‘acts as strategy for breakfast’. He was open about previous failures and a pervasive culture of fear amongst clinicians and managers that must be revised.

He put the case for collaborative working, for IT to be at the heart of things to cope with the massive changes in healthcare and an imminent explosion of knowledge he sees occurring over the next five years. He mirrored key aspects described by Gwyn Thomas addressing devolution within a common purpose and a light touch from the centre. He brought out many points, notably a warning that ‘bad information travels fast’ and a salutary lesson that ‘23-33 per cent of drugs prescribed in hospitals do not get in[to] the patient’.

Testing the water
The commercial exhibition had a very different feel this year. Vendors, who have not had opportunities in the UK for a number of years, were back testing the water and showing how their products have improved over recent years. This was particularly evident in the field of hospital information systems. The higher proportion of decision makers present at HC2010 than in previous years meant fewer but more productive discussions on many of the stands.

For further information please visit: www.hc2010.co.uk

This, in Protti’s opinion, is first class leadership. In both IHC and VA it is possible to point to individuals who are excellent leaders.

Professor Heinz Wolff, a highly respected scientist, well known television presenter, and the accredited inventor of bioengineering, talked about the challenges of the modern world and how he’d like to succeed in making us different people, so we might meet those challenges. As a consequence of some work looking at science education for the Irish government, Professor Wolff highlighted the words frugality and mutuality – suggesting that they represented the flag against which Europe would have to operate for the next few years. Frugality, which means we don’t consume too much, and mutuality, which means we are nicer to each other – we have social systems on the basis of people collaborating. He believed that by adopting these two approaches we might be able to reverse the egoism and materialism of recent years. He suggested that innovation in the 21st century would take place not so much in science and technology, but in the way in which society organises itself.

He distinguished between medical treatment and comfort care, the latter he suggested would have to become the responsibility of the community: the government would simply not be able to afford it. Wolff proposed a scheme whereby everybody commits to a certain amount of community work that gives you a credit on your account. When you yourself require care you draw on these credits, a sort of pension in kind.

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Brian Davies, Professor of Medical Robotics, Imperial College of Science, Technology and Medicine, London, recently gave a talk on robotic surgery for BCS Health Northern. Phil Paterson reports.

Professor Davies said that robotic surgery started about 20 years ago and although it has come a long way since it is still not widely adopted in the clinical environment. Robotics is part of the study of mechatronics. Professor Davies started the Mechatronics in Medicine Group at Imperial College, London, recently gave a talk on robotic surgery for BCS Health Northern. Phil Paterson reports.

The first medical robot to be described and illustrated by Professor Davies was the Imperial College Probot for prostate surgery, from April 1991. It was experimental and was used by a leading London-based urologist. Early laboratory trials using an industrial robot were described as having eight degrees of freedom, but the safety of robots with multiple degrees of freedom was an issue so a safety ring was designed. (A safety ring is a mechanical device that limits the movement of the robot, constraining it for safety reasons). The robot had a camera on the end so that the surgeon could see what it was doing. The surgeon had to put the robot in position and then leave it to run automatically. But an autonomous robot is not ideal – surgeons prefer a hands-on approach. Professor Davies’ subsequent designs of medical robots therefore used this hands-on approach.

The next example was ROBODOC for hip surgery – another autonomous robot. The surgeon would ‘lock down’ the patient, put the robot in place and start it. The surgeon just had a safety STOP button.

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The ACROBOT sculptor for orthopaedic effectiveness. To be effective they must be acceptable within the framework of a viable business model. Overall cost reduction is one of the factors in getting robots accepted. Methods of reducing costs include transferring capital costs to a cost-per-patient, and using an operating room assistant to set-up the robot in advance to save the expensive time of a surgeon.

Whether a robot makes a clinical difference is not always easy to assess. How good is conventional surgery? It is not easy to get reliable evidence. It is often one person’s opinion against another.

Davies explained how master/slave telemanipulation is now used in surgery. It is ideal for soft tissue surgery. Generally the master is positioned near the patient in the operating room and high quality 3D imaging is used to guide the surgeon in the use of the equipment. In one example, the master console controls a tool, 1cm in diameter, which has a cable driven endo-wrist, which can be used up to 12 times before it has to be discarded in case it breaks. One such robot is now frequently used for radical prostatectomy. Sales are now driven by patients starting to demand the robot. It costs about $1.5M plus about $100k pa maintenance, plus about $20k disposables (e.g. replacing the arms) per procedure. There are about 14 robots in the UK now, although not all are used heavily.

Professor Davies also described an approach to biometrics based on neurosurgery and on the wood-boring wasp, which pushes its probiscus into the wood and then pulls its way into the wood using a reciprocal motion. Robotic cochleostomy needs a smart surgical micro-drill to cut into bone, but the problem is that the surgeon doesn’t know how thick the bone is and doesn’t want to drill right through. The axial force and torque of the smart drill changes when it gets near the end of the bone so the drill stops and can be removed by hand. It is a simple and relatively low cost device, which is used clinically with very good results.

**What is the future for robotics?**

The culture is changing. Patient demand for the best treatment is driving demand for more robotic surgery, but there must be real benefits. Surgeon-reluctance needs to be overcome. This requires hands-on intelligent tools, not autonomous robots, and it must be simple to train users, set up the robots and use them. Lower cost systems are required. Robots are used for procedures that are difficult conventionally and where they provide clear benefits compared with the alternatives.

In summary, robotic systems are integrated systems that require teamwork and still need funding to be further developed.

In the questions and discussion that followed the talk, it was highlighted that one of the big problems is that many patents have been bought up in the USA. Hence few companies will take on the threat of litigation by patients and their lawyers and it must be simple to train users, set up the robots and use them. Lower cost systems are required. Robots are used for procedures that are difficult conventionally and where they provide clear benefits compared with the alternatives.

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INSPIRED AND INTRIGUED BY A RECENT HEALTH INFORMATICIANS’ DEBATE, AMIT BHAGWAT, CEO OF BEAM SRC AND A STRATEGY-ARCHITECTURE-GOVERNANCE CONSULTANT, DELVES INTO FACETS OF INFORMATION GOVERNANCE INCLUDING THOSE THAT ARE COMMONLY MISUNDERSTOOD, MISUNDERSTOOD AND ROUTINELY MISSED IN THE HEALTH SECTOR.

Amit Bhagwat, CEO of Beam SRC and a strategy-architecture-governance consultant, delves into facets of information governance including those that are commonly misunderstood, misunderstood and routinely missed in the health sector.

ASSIST Yorkshire recently debated the motion: ‘This house believes that information governance (IG) kills people.’ The event provided some insight into how ‘information workers’ in the health sector, and perhaps in the entire public sector, perceive information governance. In the debate, the affirmatives offered two anecdotes with common points. One was a case of an elderly lady who was apt to forget medical procedures and was in need of social services’ attention. The social services, however, were unable to intervene without her consent. The lady, a simple soul, uncomfortable with officials to begin with and additionally finding the procedures incomprehensible and perhaps intimidating, did not consent. As it turned out, she died after a minor domestic accident that she would have survived by consenting to greater care. The second example concerned a family member of the debater himself. It related to their inability to act in her interest when she was comatose, because power of attorney was neither sought nor granted beforehand. Although this story ended on a happier note, family members suffered unnecessary stress due to information-handling consent issues.

The negatives stuck to the British value of respecting privacy and with the possibility of information abuse without safeguards and the potential for carelessness without implications of loss of profession and criminal charges. They also tried to alleviate scares by citing a US case involving a psychopathic killer. They explained that the common law in Britain was sensible and circumspect enough where greater public good or palpable risk to life allowed overriding right to privacy and, in that respect, information governance was not a potential killer. While discussions such as these are quite common among information workers, they have a predictable pattern that leaves out many aspects of information governance.

Questions unanswered and perhaps also unasked

Do we comprehensively understand information governance?

HAD INFORMATION GOVERNANCE SIMPLY BEEN SAFEGUARDING AGAINST UNAUTHORISED FLOW OF INFORMATION, IT WOULD HAVE BEEN REFERRED TO AS SUCH — SOMETHING LIKE INFORMATION SECURITY OR CONTAINMENT. SECURITY AND CONFIDENTIALITY ARE IMPORTANT. HOWEVER, SECURITY AND CONFIDENTIALITY COMprise BUT A FRACTION OF INFORMATION GOVERNANCE. ACTIVE INFORMATION GOVERNANCE BEGINS WITH DATA AND METADATA DESIGN I.E. THE RELATIONSHIP BETWEEN THEM, SAFEGUARDS AND DATABASE ELEMENTS, BEFORE THE DATABASE IS POPULATED.

Even the IG Toolkit, considered a work-in-progress by some, gives a wealth of pointers. To cite an example, the Getting Started guide for NHS organisations, in its first paragraph ‘What is Information Governance’ points to information quality (fidelity), pertinence, records management, aggregated monitoring and freedom of information implications, besides security and confidentiality.

What data can be legitimately considered information?

On aspects of database design, each element in the database needs to be considered for:

- relevance – both overall and at a specific point in time;
- usage – including allowable manipulation;
- mastery and currency – logical ownership, duplications, potential mismatches and synchronisation;
- intelligence potential – including rules applicable to research data and the border between primary and secondary uses of data;
- decision support – including what aspects can assist an information guardian in reaching a reasonable decision should the primary decision maker (e.g. the elderly lady) be incapable of decision.

Unfortunately, these aspects are frequently missed or considered perfunctorily. This is not because sensible database designers do not exist, but because the database is often drawn by political whimsy or through a contract with suppliers by officials poised for delivery. Notwithstanding that in a democracy the logical design of a national database should not be a secret, the design is often not even subjected to review by competent independent thinkers. Further, while awareness is building about the futility of collecting unnecessary data (e.g. place of birth) it is vividly lacking about loss of relevance over time and therefore the importance of the lifetime dimension in metadata. In fact, widely user-stratified logical design and adequate and appropriate metadata are the most important aspects of effective active information governance. Yet, operational owners and commissioners of databases are routinely unaware of these, let alone being able to train the information operators about these aspects.

Are information governance procedures optimum and expedient?

This concerns the best way of obtaining and maintaining information that is necessary and sufficient for specific, clearly understood goals. Hence, in the example of the elderly lady mentioned earlier, where the debater argued that her apprehension was a natural by-product of the incomprehensibility of the information governance procedures, the so-called IG procedures were not therefore information governance. Making them comprehensible would have been.

Are some questions legitimately un-resolvable?

Let’s go back to the case of the elderly lady. Hypothecise that she precisely understood the risks she was taking by not working with the social services. It would still have been her refusal to consent to getting information processed that would have killed her. Yet, with many of us upholding her freedom of choice, while others focus on our duty to prevent avoidable death, an incontrovertible judgement would not have materialised.

So, does information governance kill?

Saying information governance kills is a bit like saying automobiles kill. Of course they do, because people do not follow the rules or encounter unanticipated situations. Yet, staying within stipulated guidelines, in practical terms, automobiles don’t kill. Plus, considering the lives saved, extended and made more productive by automobiles, they perhaps actually give or sustain life.

Information accidents, though predating automobile accidents, are far less tangible and so it has taken longer for the guidelines and safeguards to appear. Few information workers are licensed, few databases are MOT’d, information highways are less well understood and road signs and signals are almost completely absent. The considerable advances in automobile safety may be attributed to advances in design of the automobiles and of the processes that design and manufacture them. Design of databases, including metadata considerations and the process of design itself, are the information equivalents to focus on.

Useful indicators and rational safeguards on information flow likewise equate to similar measures applied on the roads used by automobiles.

For more information go to: www.beamsrcc.com

INFORMATION GOVERNANCE
The NHS Infrastructure Maturity Model (NIMM) is a comprehensive approach to improving IT infrastructure by benchmarking and managing performance. Andy Savvides, Principal Consultant at Atos Consulting, provides some background to this useful maturity model and contextualised insight into how the top-down approach taken by the NIMM can improve the quality of IT infrastructure.

The NIMM was developed by the NHS Technology Office in collaboration with a number of different NHS IT organisations. Atos Healthcare worked closely with the NHS helping to define and develop the NIMM as well as support initiatives to raise awareness across the NHS IT leadership community and NHS infrastructure partners. A number of different models and approaches were considered (Gartner, Microsoft, ITIL and others), but the NIMM was developed specifically for the NHS.

Informatics planning 2010/11
The Department of Health issued the following guidance in its Informatics Planning 2010/11 Annex 1, National Expectations, Developing Maturity of Technical Infrastructure. NHS organisations should publish their current position on the NIMM and determine the priority elements of infrastructure for analysis using the NIMM, aiming to achieve at least Level 3 and ideally Level 4 of the NIMM across the priority elements of its technical infrastructure within the next 12 months.

Effective use of the NIMM requires NHS organisations to understand and prioritise how they invest in improving their IT infrastructure capabilities. This prioritisation should be done by first reviewing business objectives and strategies and then by identifying the infrastructure maturity levels and services needed to deliver these goals.

The NIMM approach
Maturity modelling of IT infrastructure is a popular and general purpose approach often used when there is a need to benchmark and manage performance. Maturity models exist for many different capabilities, including software development, process optimisation, operations, IT governance etc. The NIMM uses two sub-models as the basis for describing a standard definition of infrastructure classes (service groups) and capabilities. The classes defined in each of these taxonomies will have a number of component capabilities, for example, ‘server patch management’ is a capability in the ‘operating systems’ class in the technology sub-model of the NIMM.

NIMM maturity levels
The NIMM has five capability maturity levels which are used to score all capabilities in all classes. Since the NIMM covers a broad range of classes and capabilities, generic statements are the most useful way of describing what life is like for an organisation at each of the five levels.

Level 1 (Basic) – avoiding downtime
Organisations at Level 1 are characterised by ad hoc manual infrastructure management and support processes. At this level, an organisation has no effective control of its infrastructure. There are no infrastructure principles, standards, procedures and guidelines in place for the most basic capabilities, such as IT security, desktop management, network services and common infrastructure services.

Level 2 (Controlled) – infrastructure visibility, service monitoring and achieving control
The motivation for moving to this level is usually a need to have a better and more consistent view of existing infrastructure, and taking control. Organisations at Level 2 have the ability to exercise adequate levels of control over key infrastructure components such as IT security, desktop management, network services and other common infrastructure services. Although the infrastructure is still unnecessarily complex, the potential impact of changing it can at least be recognised. However, it is difficult to adequately understand and mitigate risks.

Level 3 (Standardised) – standardising the infrastructure and adopting proven best practice
Organisations at Level 3 have a high level of governance and manageability of its IT infrastructure. This uses the control capabilities achieved in Level 2 to implement principles, standards, procedures and guidelines for managing key infrastructure capabilities such as IT security, desktop management, network services and common infrastructure services. IT staff will be using a common set of tools to help with learning and sharing knowledge and best practice.

Level 4 (Optimised) – infrastructure optimisation
The motivation for moving to this level is usually a need to drive operational efficiency by eliminating non-value adding services and introducing a number of optimisation and lean initiatives. At this level, organisations will have optimised their infrastructure to the point where the costs involved in delivering and managing core infrastructure are low when compared to similar industry norms. Processes and policies will also be optimised to support technology, enable agility and help the organisation achieve its strategic goals.

Level 5 (Innovative) – IT infrastructure that enables innovation
The motivation for moving to this level is to exploit the investment made in infrastructure maturity. The objective is to support the transformation of services and business change based on innovation. Organisations that achieve Level 5 will have a robust and agile infrastructure that is the acknowledged catalyst for technical and business innovation.

The NIMM self-assessment balanced scorecard
In order to help an organisation determine its NIMM maturity level, the model includes an infrastructure balanced scorecard. It is designed to help achieve balanced IT infrastructure maturity and avoid the tendency of seeing infrastructure services as being purely about technology. It therefore promotes IT objectives as part of achieving business objectives.

Evaluation perspectives
The balanced scorecard provides a holistic approach to self-assessment which is achieved by evaluating and scoring infrastructure service maturity from a number of different perspectives:

- strategy alignment and business value;
- IT security and information governance;
- process;
- technology;
- people and organisation.

Making the NIMM work for you
In order to get the most value from the NIMM and really achieve lasting benefits for your organisation, you may well find the following suggestions...
Only by taking a top-down approach will you succeed in getting the right kind of senior management focus on the importance of achieving mature IT infrastructure.

Strategy alignment and business value often hold the key – The root causes of lack of capability are no clear vision, no sense of scope and no alignment of the NIMM with business objectives. Getting these right can lead to quick wins that improve the overall score for organisational maturity.

Be honest – View the assessment as an opportunity to highlight those areas that need investment and those areas that are already mature enough for the current needs. There is no right or wrong NIMM score, the working out is as important as the answer. The NIMM can be extremely useful in helping NHS organisations arrive at a common consensus of what the real NIMM score and actual state of play are. The CID should play an active role in creating and promoting a no-blame culture and encouraging a realistic assessment.

Using the balanced scorecard helps you see the bigger picture – A number of NHS CIDOs have commented that the balanced scorecard has helped them examine different management and technical perspectives and discover aspects of their organisation’s performance that were previously hidden. Moreover, the collective endeavour of a team approach will see the bigger organisational picture. A single individual, working on their own, however hard, is unlikely to do so.

Note: The NIMM is under continual development by the NHS Technology Office. For the latest information and assistance with starting a NIMM engagement please contact the NIMM team by emailing: nimm@nhs.net

REFERENCES
(1) DH/Informatics Directorate/Policy and Planning, Informatics Planning. 2010/11. Dec 09

TELEHEALTH

The news that the Scottish Centre for Telehealth (SCT) has joined NHS 24 – the largest nurse-led telehealth service in Scotland – was welcomed by the SCT Paediatric Telemedicine Nursing team, Sharon Levy, a new executive member of the BCS Health Nursing Specialist Group, provides an overview of the specialist arena.

Nursing is well suited to lead work around the development of new ways of working and adopting innovative technologies that support healthcare at a distance.

The UK healthcare arena has seen rapid change in the last 10 years, propelled in part by powerful technologies. These range from sophisticated drugs and procedures to advanced information and communication technologies including telehealth.

What is telehealth?
The term itself is created by adding the prefix ‘tele’, ancient Greek for ‘distant’, to health. Telehealth thus means literally ‘healthcare practised and provided at a distance’. The full definition as noted in Wikipedia reads: ‘Telehealth is the delivery of health-related services and information via telecommunications technologies. Telehealth delivery can be as simple as two health professionals discussing a case over the telephone, or as sophisticated as using videoconferencing between providers at facilities in two countries, or even as complex as robotic technology’.

The use of telehealth
The use of telehealth to substitute for, or enhance, a face to face interaction is now widely used within the NHS to deliver care, support and education. Both service users and service providers can benefit from the potential of fast, efficient and cost effective care as well as better health outcomes and increased satisfaction from the service. However, apart from the clear benefits of using new technologies as part of – or a conduit to – therapeutic interaction, there are also challenges and risks to both patients and clinicians. These include practice elements such as:

- security, confidentiality and information sharing;
- record keeping and clinical record ownership;
- data management (retrieval, maintenance, storage, and disposal);
- ethics and etiquette of telehealth use;
- legal liability and professional accountability.

Telehealth nurses, those who offer care and support via the telephone (e.g. NHS 24) are at the cutting edge of practice development and there is much we can learn from this current service. It is also acknowledged that acquiring and installing the right telehealth hardware and decision support software is essential for enhanced clinical communications. Yet, just as important is the way clinicians interact with the technology, use the new clinical pathways and embrace change in their practice.

A Scottish case study
To support effective implementation of the paediatric telemedicine service in Scotland the decision was made to employ a team of senior nurses as telemedicine nurse specialists. As noted on the SCT website, the programmes the nursing team aims to progress include critical care support, using telehealth in Child and Adolescence Mental Health Service (CAMHS), care at home for children with palliative and complex needs and supporting unscheduled care services.

The choice of using nursing staff as key telehealth enablers was made on the basis that nursing input is an integral component of most services that involve remote care provision. The post holders act as the lead specialists in driving change in their localities (currently Dundee and Glasgow), as well as developing new clinical services in collaboration with fellow clinicians, managers and other healthcare staff and stakeholders across Scotland.

Apart from progressing noted programmes, the SCT, in collaboration with others, is also looking at ways of developing a range of products, guidelines and services including:

- training content and articulation of competencies in managing telehealth equipment used to enhance the therapeutic environment;
- acceptability as well as safety of the technology and associated practice;
- user involvement, including rights and obligations such as autonomy, privacy and informed consent;
- roles/habits and associated clinical responsibilities in supporting on-going and ad hoc care;
- managing boundaries and provision overlaps by different health and care agencies;
- data integrity, accuracy and timeliness as well as network security.

ADDITIONAL INFO

For more information regarding telehealth please visit: www.sct.scot.nhs.uk
In ehealth, as in all areas of healthcare policy today, patient involvement is key to developing meaningful and sustainable policy. Putting patients at the heart of EU healthcare policy is essential. Helping empower patients benefits not only their own wellbeing, but has been shown to improve the wellbeing of the community as a whole. Nicola Bedlington, EPF Director, explains why patient involvement is central to ehealth success.

In modern healthcare, where moving towards a more expert or informed patient approach, for example to chronic disease management, is becoming the norm, there is an increasing need to view the patient as an active citizen who participates in their treatment. At the end of last year, the European Patients' Forum (EPF) drew the policy community’s attention to the need to strengthen patient involvement at the final event of the Value+ project in Gothenburg, Sweden. The aim of the conference was to enhance political commitment to patient involvement in health-related projects and at EU level.

The European Commission The European Commission recognised the need for patient involvement in health-related policymaking in its White Paper 'Together for Health: A Strategic Approach for the EU 2008-2013', which states that healthcare is becoming increasingly patient-centred. Although there is a growing trend in the European Commission towards patient involvement, the EPF believes that there is a long way to go before patient involvement in EU programmes can be assured. Positive steps are being made towards legitimising project results and making communication more patient-friendly. More needs to be done not only within the EU institutions, but among other stakeholders, including the patient community.

Beyond traditional projects Health-related projects go beyond traditional medical and clinical projects, addressing other aspects that contribute to meaningful patient involvement such as capacity building, self-empowerment, education and advocacy. Ehealth is an example of how patient involvement is important for not only EU health-related projects and policies, but for the community as a whole. As we move further into the information age, healthcare systems are becoming increasingly dependent on information and communication technologies to deliver quality care to EU citizens. Healthcare information is increasingly communicated over the internet. No wonder then that ehealth is one of the top priorities on the EU’s 2010 agenda and also one of EPF’s strategic priorities.

Ehealth Users Stakeholder Group In order to achieve these priorities, the EPF is a part of the eHealth Users Stakeholder Group, an advisory group set up by the European Commission to provide input on ehealth. EPF is also involved in the European Patients’ Smart Open Service (EpSOs) project, an open ehealth initiative for a large scale European pilot of patient summary and electronic prescription, CALLIDEP, the first project to set up a network of experts to support member states to implement interoperable ehealth solutions and Renewing Health (RePsOns of Europe Working tOgether for HEALTH) project.

Value+ outcomes The outcomes of the Value+ project on patient involvement unveiled at the Gothenburg conference included the Value+ Toolkit and Value+ Handbook. These are aimed at helping patient groups to get involved in health-related projects and policy making. They include references to good practice and models for meaningful patient involvement as well as a set of policy recommendations. The Value+ policy recommendations were developed as a result of the findings in relation to the assessment of patient involvement in health projects supported by the European Commission. They highlight the views of patients and patient representatives who expressed, through a survey, focus groups and seminars, the actions needed at various levels to achieve meaningful involvement and have the support of patient organisations.

Call to action Through the recommendations, the EPF is calling for action to ensure patient involvement is integrated in the health policy-making process and programmes. EPF want to see a new EU policy including a code of best practice and guidelines to guarantee patient involvement at all levels. Financial assistance is also required from the EU budget to help patient groups participate in the political process. To support these goals, the EU should create a European Centre on Patient Involvement to facilitate the transfer of best practice to provide information and capacity building.

Deliverables The Value+ deliverables are already in the process of being translated into Bulgarian, French, German, Lithuanian and Spanish to ensure that a wide group of European patient organisations will have access to this information. The deliverables are currently available in the English language to download on the EPF’s website. The EPF’s firm belief, demonstrated through Value+ findings, is that meaningful patient involvement contributes to more positive health-related project results. This in turn will lead to more patient-centred, equitable healthcare policy throughout the EU. Ehealth, like other sectors, can only stand to gain from this.

For further information on the eHealth Users Stakeholder Group go to: www.srdc.metu.edu.tr/stakeholders_group

Ehealth is an example of how patient involvement is important for not only EU health-related projects and policies, but for the community as a whole.

VALUE+ PROJECT

Value+ is a two year project co-founded by the European Commission and led by the EPF and its seven project partners. The project’s aim is to exchange information, experiences and good practice among key stakeholders in relation to meaningful patient involvement. To access and download the deliverables, please visit the EPF’s website: http://www.eu-patient.eu/Initiatives-Policy/Projects/ValuePlus/
**GOALS AND ASPIRATIONS**

Reader in General Practice and Informatics and GP Simon de Lusignan, University of London, explains what his goals and aspirations are as the current BCS Health – European Federation for Medical Informatics (EFMI) representative.

I have been fascinated by the challenges of how IT can be incorporated into clinical practice and how we might best utilise routinely collected data to improve quality. I come at these conundrums from the perspective of a clinician and academic. I have been a GP in Guildford for over twenty years, and an academic GP at St. George’s Hospital, University of London, where I am head of General Practice and Primary Care and run a clinical informatics research group.

My academic work has given me an international perspective and led to the realisation that many of the problems we face are international and that there is enormous scope to share each other’s learning and experience.

**Goals as BCS EFMI representative**

My goals as BCS EFMI representative are to encourage more shared learning across Europe. Whilst we face many of the same problems and need to work hard to overcome the many barriers to using IT in clinical practice, much of Europe does things differently to the way we do it in the UK. Nobody has heard of a Read code, the beloved clinical coding system used in UK primary care. Instead many countries use ICPC (International Classification of Primary Care), which incidentally has its roots in the UK.

**Meeting these goals**

I propose to try and meet these goals by:

- Promoting opportunities for shared learning. I would like to see many more people from Europe attending our showcase conferences – in particular, HC and the PHCSG summer conference. I would likewise hope that many more people from the UK would attend EFMI’s annual MIE (Medical Informatics Europe) conference and its smaller special topic conferences.
- Encouraging people to write and develop the European informatics literature. Much of our understanding about health informatics is shared in meetings and in specialist groups. We need to encourage more people to formalise their knowledge through writing in the European Informatics journals. This includes writing for our own journal ‘Informatics in Primary Care’, which is a BCS only Medline listed Journal.
- Taking an active role in pan-European projects. For example, I am just at the start of the TRANSfORM project, which is a European Union (FP7) funded project that involves active participation of the EFMI primary care informatics working group. This project is looking to explore common ways of developing decision support and making better use of routine data for research across Europe.

**EFMI OBJECTIVES**

The objectives of the European Federation for Medical Informatics (EFMI), founded in 1976, are:

- to advance international cooperation and dissemination of information in medical informatics on a European basis;
- to promote high standards in the application of medical informatics;
- to promote research and development in medical informatics;
- to encourage high standards in education in medical informatics;
- to function as the autonomous European Regional Council of IMIA.

For more details: www.helmholtz-muenchen.de/lbm/efmi

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**EVENTS**

**July 2010**

**Health Informatics London and South East**

21 July 2010

Kevin Jarrold gives an update on IT in the NHS

BCS, 5 Southampton Street, London

[www.hilsesg.bcs.org/events.htm](http://www.hilsesg.bcs.org/events.htm)

**Nursing Specialist Group**

19-24 July 2010

**Summer Institute of Nursing Informatics**

University of Maryland School of Nursing, Baltimore, USA

[http://nursing.umarlany.edu/calendar](http://nursing.umarlany.edu/calendar)

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**September 2010**

**International Medical Informatics Association (IMIA)**

12-15 September 2010

**Medinfo 2010**

Cape Town, South Africa

[www.medinfo2010.org](http://www.medinfo2010.org)

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**Primary Health Care SG**

**Call for submissions for the John Perry Prize**

The John Perry Prize is the most prestigious award for innovation and excellence in primary care computing. It is awarded to those who have made an outstanding contribution to the subject. The contribution can be a paper, a piece of software, or a set of accomplishments. All will be considered. If you think you have made an important personal contribution to primary care computing, then please make a submission.

Provide as much information as you can, including why you think your submission is worthy of the prize. If you wish to discuss a possible submission, please contact Roz Foad, PHCSG Chair at chair@phcsg.org

An award of £500 is made as well as a certificate. The successful candidate will be invited to make a presentation to the conference after a small award ceremony.

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**Student assisted places**

Assisted places are only open to students who are current members of the PHCSG and who have a paper or poster accepted.

For accepted student submissions we will provide a free full conference package including meals and accommodation to attend the conference. The top submission will also receive a certificate.

**Student conditions:** to be eligible for the student assisted places you must have current student membership with the PHCSG (current cost £30 per annum); further details can be found at: [www.phcsg.org](http://www.phcsg.org) prior to submitting papers or posters for consideration at the conference.

Send John Perry Prize submissions or student submissions before 12 September: Jill Riley, PHCSG Administrator: jill@phcsg.org

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**BCS Health Scotland**

22-23 September 2010

**BCS Health Scotland Conference**

Glasgow Science Centre


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**October 2010**

**Primary Health Care Specialist Group**

11 - 13 October 2010

**30th Annual Conference**

**Distributed Health Informatics - is this the new Holy Grail?**

Crew Hall, near Chester

[www.phcsg.org.uk](http://www.phcsg.org.uk)

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**December 2010**

**Health Informatics Interactive Care SG**

4 December 2010

**Medicine on the edge with surgeon Captain Peter Buxton, OBE**

BCS, 5 Southampton Street, London

[www.hiicsg.bcs.org/events.htm](http://www.hiicsg.bcs.org/events.htm)

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