

Newsletter

Innovation Competition 2009 Special...

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MEDIPEX INNOVATION COMPETITION AWARDS CEREMONY - 28th April 2009

To the background of Lord Darzi's announcement of a £20million challenge fund for Innovation, more than 150 people from Industry and the regional NHS gathered at the Tankersley Manor Hotel on Tuesday April 28th for the awards evening of Medipex's 2009 NHS Innovation Competition.

The awards, now in their fifth year, provide a platform to showcase new technology developed by NHS staff from around the Yorkshire and Humber region with benefits that can be adopted and used both regionally and nationally. Prize money totalling £10,000 was awarded on the night to help the winners in the three categories to develop their innovations further.

The big winners on the night were a blood testing tool to accelerate the identification of antibiotics for treatment of patients with MRSA, the "dignity" mobile bidet dryer commode, resources which allow staff to communicate better with children who have learning difficulties and a training simulator to improve the training of staff in radiology and x-ray procedures.

Medical Devices and Diagnostics Category

For the first time ever at the awards, one of the categories had joint winners. **Tom Darton** and his team from Sheffield Teaching Hospitals NHS Foundation Trust shared the first prize of £4,000 with **Andy Speechley** of Independent Care Products Ltd who had been working with **Avril McCarthy** of the Devices for Dignity HTC based at Sheffield Teaching Hospitals.



Tom Darton and his team from
Sheffield Teaching Hospitals NHS Foundation Trust



Andy Speechley of Independent Care Products Ltd with Avril McCarthy
of the Devices for Dignity HTC based at Sheffield Teaching Hospitals.

Tom Darton and his team received their prize for the work they had done developing a new **blood screening test** which helps to cut down the time in identifying those antibiotics which can be used to treat patients with MRSA from more than 24 hours to just 4 hours. The test, which could be easily adopted by other NHS Trusts, has the potential to save costs by reducing the use of broad-spectrum antibiotics such as meropenem, shorten hospital stays and prevent side-effects from these broad-spectrum antibiotics.



The **“Dignity” mobile bidet / dryer commode** is the concept of **Andy Speechley**, a member of the public who developed the device to help a friend who had suffered a stroke, and, as a side effect, suffered from incontinence. Andy has been working with **Avril McCarthy** and the Devices for Dignity team to develop the idea further and has received recognition for this idea from a wide range of people. The device is a mobile bidet / dryer commode for the disabled and elderly who are unable to clean themselves satisfactorily after using the toilet. It has a built-in washer and dryer function which can be controlled by the user or carer and the device can be moved from room to room. Potentially, the device has real benefits for both patients and carers as it improves a patient’s quality of life and decreases the amount of unpleasant tasks that a carer has to perform.

Runners-up in the category were **John Wilson** from Sheffield Teaching Hospitals NHS Foundation Trust and **Neil Wright** from Sheffield Children’s Hospital.

The **Operating Theatre Fluid Waste Disposal System** developed by **John Wilson** permits the disposal of fluids that have been flushed through the body during an operative procedure (typically urological) to be disposed of directly to the mains sewerage system. Such waste is currently collected into single-use canisters which are then disposed of as clinical waste at a cost of approximately £15,000 per annum per operating theatre.



The **“WITHCARE” system** developed by **Neil Wright** from Sheffield Children’s Hospital is an automated monitoring and decision support system for Type 1 Diabetes patients. Young people with diabetes are at risk of developing long-term complications. Tight control reduces the risk of these complications, but control frequently deteriorates in adolescence and young adult life. The system developed by Neil and his collaborators from Sheffield University works with any patients’ existing blood glucose meter and their mobile phone. It automatically transmits data regarding the individual’s diabetes to the diabetes team and due to the use of existing infrastructure does not require expensive telecommunications devices. Data transmitted to a diabetes team can be used to identify those individuals who are consistently high blood glucose levels and those who are not undertaking blood glucose monitoring at home. Feedback to the patient can be sent to their mobile phone either automatically or manually by a member of a clinical team.

Software and ICT Category

The **Virtual Cath Lab (VCL)** designed and developed by **Shawn Lawson** of Connecting for Health was the winner in the Software and ICT Category.



Shawn Larson of Connecting for Health

The VCL is a PC-based computer simulation of medical procedures with two main components; the simulation of fluoroscopy (X-ray) equipment and simulation of the clinical radiology procedure. It is based on 3D games technology and will run on any Windows PC. The software simulates exactly how the equipment works in the real world and so provides a completely radiation-free training environment.

The runners-up in the category were **Steve Jessop** from Hull and East Yorkshire Hospitals NHS Trust, **Martin Waugh** of Leeds Teaching Hospitals NHS Trust and **Kirsty McDonald** of Sheffield PCT.



The **Virtual Trauma Orthopaedic Management System (VTOMS)** developed by **Steve Jessop** allows tracking of patients who are in A&E (or in a "virtual ward" – i.e. at home) until they meet the required parameters to allow safe fixation of broken bones. Emergency trauma patients who have broken bones have complex requirements involving various preparatory and implementation steps before, during and after surgery. In essence it acts like an air traffic control system allowing optimal use of expensive resources such as operating theatres and staff time whilst alerting the on-duty staff to individual patient's requirements.



The **Patient Pathway Manager** developed by **Martin Waugh** and his collaborators at Leeds Teaching Hospitals creates a specialist electronic patient record for all patients with cancer, suspected cancer or non-cancer treatments delivered by teams related to cancer. It merges data from a range of clinical delivery systems such as chemotherapy prescribing, radiotherapy, the PAS and pathology reports so that clinicians and support staff have a single resource which they can use to make informed decisions.

NOWCOM, developed by **Kirsty McDonald** of Sheffield PCT is a touch screen communication device to aid patients who have communication difficulties to communicate important decisions and feelings around medical treatments, discharge planning and palliative care. The team hope the device will not only improve the quality of communication with patients, but also the efficiency of staff time to gain information around mental health capacity decisions.



Training and Publications Category

The **information and communication resources for children** with special needs in hospital developed by **Judith Short** of Sheffield Children's Hospital NHS Foundation Trust was the winner of the Training and Publications category.



Judith Short from Sheffield Children's Hospital NHS Foundation Trust



Children who have learning and communication disabilities often exhibit extreme anxiety associated with treatment at the hospital. This may be due to unpleasant procedures, the unfamiliar environment, fasting or their loss of routine. Conventional information resources or the usual methods of explanation do not always suit their particular needs. So far, communication resources using symbols to explain the timeline of a trip to daycare for surgery have been developed to help children to understand the sequence of events. Key steps in the process are highlighted by a colour-coded chart. A post-operative choosing chart allowing children to point to symbols representing feelings, wants and need, and a symbol version of the food choices available for their first meal after surgery have also been developed. The team hope that the charts and ideas could be easily adapted and used by other NHS Trusts to improve communication with special needs children.

Kevin Channer of Sheffield Teaching Hospitals NHS Foundation Trust, **Angela Earnshaw** of Barnsley Hospital NHS Foundation Trust and **Anne Wood** of Leeds Teaching Hospitals NHS Trust were the runners-up in this category.

ecgskills.net, developed by **Kevin Channer**, Carole Evans and Fiona Coates in collaboration with Medcom Ltd, is an online training resource for training a wide range of medical staff in how to carry out, interpret and report on electrocardiograph (ECG) traces.



The 12 lead electrocardiograph is the most basic and important of the non-invasive cardiac tests. It is recorded at the bedside and used immediately to inform diagnostic and management decisions in patients with a suspected heart attack or palpitations. It can be recorded by ambulance staff, GP practice nurses, all in the Accident and Emergency department and by cardiac technicians and doctors on-call. All these staff need to be confident in recognising normal traces from abnormal traces so that patients receive appropriate treatment promptly. **ecgskills.net** has 3 levels and over 300 real-life ECG's populate the system so that realistic training and high-quality training to be provided to all which they can work through at their own pace. Being web-based, **ecgskills.net** can be easily used by any healthcare worker at a time convenient to them and is already being used in locations as far a field as Australia and the USA.

Your Choice, Their Choice, is a customer service organisational development programme developed by **Angela Earnshaw** at Barnsley Hospital NHS Foundation Trust. It aims, through a DVD, to facilitate customer service standards to be developed in departments for managers and staff to receive training on customer service / customer care and this to be followed up with the establishment of customer care champions who will take on the role of monitoring performance against standards and embedding good practice. The DVD, which was filmed in the hospital, tells the story of a patient who has had a poor customer experience at the Trust, depicting examples of both good and poor practice relating to the attitude and behaviour of staff whilst dealing with patients. A pilot of the programme has already demonstrated significant benefits in relation to customer service and care.



Anne Wood and the neonatal outreach team at Leeds Teaching Hospitals were finalists for their work developing an educational package for parents to teach them about short-term nasogastric feeding and establishing regular patterns of feeding. **Short-term nasogastric feeding within neonatal community care** is a relatively new and untapped practice. The training materials which have been developed include a risk assessment plan, guidance for the nursing and medical staff, and an information booklet for parents. The impact of the work to date within Leeds has meant that a total of 45 babies have been discharged home early, leading to a reduction of 446 hospital days stay. Nationally, this could increase the availability of neonatal unit cot space availability and reduce the need for the transfer of vulnerable infants.

Sponsors of the Medipex Innovation Award Ceremony were:

ACCESS TO FINANCE (<http://www.investinginhealth.co.uk>)

The Yorkshire Forward Access to Finance for Healthcare Technologies (YFAFHT) is an investment readiness programme established by Yorkshire Forward to assist companies in the Health Technology sectors. This sector includes biotechnology, medical device, pharmaceutical and nutraceutical companies. The programme is available to all businesses classed as Small and Medium Enterprises (SMEs), which are those companies with an annual turnover of not more than €40 million, and 250 employees.



MEDILINK (Yorkshire and Humber)

(<http://www.medilink.co.uk>)

Medilink (Yorkshire and the Humber) Ltd is a membership-based professional association which services medical technology companies, hospitals and universities within the Yorkshire & Humber region. It also provides a gateway for national and international clients interested in developing relationships (commercial, research or clinical) with the region's healthcare technology sector. Medilink (Yorkshire and the Humber) is part of a national network of 10 Medilink organisations across the UK and was the first to be formed.



SKILLS FOR HEALTH (<http://www.skillsforhealth.org.uk>)

Skills for Health is the Sector Skills Council (SSC) for the health sector, helping the whole sector to develop solutions that deliver a skilled and flexible workforce in order to improve health and healthcare. Skills for Health's specific aims are to develop and manage national workforce competences; profile the workforce; improve workforce skills; and influence education and training supply. To ensure consistency across the country in service provision, Skills for Health has developed a range of Competences to describe what individuals need to do, what they need to know and which skills they need to carry out an activity. Competences can be used across the board - by all health professions, and all levels of staff, whether in the independent or voluntary sectors or in the NHS.

URQUHART-DYKES AND LORD (UDL) PATENT AGENTS (<http://www.udl.co.uk>)

Urquhart-Dykes and Lord is one of the 's leading firms of Patent and Trade Mark Attorneys, specialising in all aspects of Intellectual Property (IP) Law. They offer a full range of services in the sector, such as drafting and filing patents and trade marks, managing IP portfolios, carrying out due diligence and enforcing IP rights. The company's attorneys assist small, medium and large corporations, universities and research bodies as well as individuals in obtaining, protecting and exploiting their Intellectual Property, both Nationally and Internationally.



CPD4 HEALTH INNOVATION (<http://www.cpd4hi.org.uk>)

Health technology innovation, development and adoption needs to be driven by patient and public need and untapped expertise of the patient is central to achieving this goal. CPD4 Health Innovation aims to facilitate this process by creating learning environments where the key partners of patients and public, NHS, industry and higher education come together to learn and share along side each other. In this way, CPD4 Health Innovation aims to be a 'hub' for training and development activity across the region.

CPD4 Health Innovation works with organisations and the sector as a whole across the Yorkshire and Humber region, to design and deliver courses that are relevant to their needs. This is done by holding events which bring together key individuals and organisations that are involved in shaping tomorrow's health agenda, to identify crucial training issues to meet both current needs and the challenges of the future.



YORKSHIRE FORWARD (<http://www.yorkshire-forward.com>)

Yorkshire Forward is the regional development agency for the Yorkshire and Humber region. Their goal is to make Yorkshire & Humber a better place to live, work and invest, and to ensure that the region is able to compete on the domestic and global stage. "Healthcare Technologies" is one of Yorkshire Forward's priority sectors with over 300 companies employing 10,000 people based in the region. In classifying healthcare technologies as a priority sector, Yorkshire Forward are supporting growth, innovation, productivity and competitiveness within this sector in the Yorkshire and Humber region.

Supported by



The Region's
Development Agency

NHS YORKSHIRE AND THE HUMBER (<http://www.yorksandhumber.nhs.uk>)

NHS Yorkshire and the Humber was set up by the Government in July 2006 to act as the regional body for the NHS and is one of ten strategic health authorities (SHAs) for . It is the headquarters of the NHS locally and act as a key link between the Department of Health and the Primary Care Trusts and Hospitals who provide healthcare services to the population of Yorkshire. The main strategic aims of NHS Yorkshire and the Humber are to improve patient care and service quality and to improve the health of the regions population. Its key functions are strategic leadership; organisational and workforce development; and ensuring local systems operate effectively and deliver improved performance.



Medipex is the NHS Innovation Hub for the Yorkshire and Humber region. It is one of a national network of NHS Innovation hubs that manage and exploit Intellectual Property (IP) within the NHS.

Medipex provides

- Confidential advice and guidance
- Brokering of collaborative R&D (industry and NHS)
- Identification of commercial partners and collaborators
- Project management and ongoing support
- Commissioning of prototypes and clinical trials
- Expert advice e.g. legal, financial, commercial, sources of funding
- Identification, assessment and exploitation of invention/ideas
- Supporting commercially sponsored research and trials
- Innovative Services: business plans, spin out companies, joint ventures
- Provision of proof-of-concept funding: buying out time, market intelligence

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