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SCAN AND SAVE - NHS TO SAVE £MILLIONS AND IMPROVE PATIENT SAFETY WITH BAR CODES

The NHS, patients and industry will benefit from bar coding technology, which will increase patient safety, improve efficiency and save the NHS £millions in extra bed days, announced Lord Hunt today.

By wearing a bar-coded wristband a bar code reader can be used to verify the patient's identity at any time, and be an extra check that the right patient is about to received the right care. At present errors, many of which are caused by getting the patient identity wrong, cost the NHS around £2 billion in extra bed days. Auto-identification could make a significant impact on this cost.

On a visit to a safe surgery site at Birmingham Heartlands NHS Trust, where he also launched a strategy document on using auto -identification and data capture (AIDC) technologies Lord Hunt said:

"Patient safety is my top priority and this document sets out a clear case for the use of AIDC technology by industry and the NHS in order to save lives, reduce mistakes and improve efficiency.

"The work of Birmingham Heartlands is a fine example of how technology can reduce patient mistakes and waiting times for operations and free up staff to spend more time on the wards with patients.

"Auto-identification is not a new technology – we've all been used to bar codes in supermarkets for years. But to reap the benefits in healthcare everyone needs to work to agreed standards. We are recommending that both industry and the NHS should use the GS1 System for coding, and I am delighted to be able to announce that GS1UK will be providing membership and support to NHS organisations who want to move forward on this.

The guidance published today should assist NHS organisations, industry and

technology suppliers in taking up the challenge of using AIDC and driving the agenda forward."

David Morgan Consultant Surgeon at Heart of England NHS Trust and a pioneer of Radio Frequency Identification (RFID) said:

"We have been using an RFID wristband tagging system to identify patients in the Day Case Surgery Unit at Heart of England NHS Trust for the last 2 years. Since using the system the staff have been able to spend more time with the patients due to less paper work and patient safety has greatly increased. In fact we have not had a single mistake whilst using the system. Patients feel more confident as we are taking safety to a higher level and some patients have even emailed the hospital to ask if they could change hospitals as they have heard about the safety of the tagging system.

"The theatres run more efficiently because there is less hanging around waiting for patients - this means we can operate on at least one extra patient per session. The accuracy of coding has now increased to almost 100% as the coding is done by the operating surgeon on his PDA at the time of surgery. The staff find the digital devices easy to use thus saving time."

Mike Kreuzer, Technical and Regulatory Director of the Association of British Healthcare Industries said:

"The ABHI, having originally raised the importance of AIDC in the HITF process in 2004, welcomes Coding for Success. It presents a comprehensive overview and clear recommendations avoiding mandatory solutions, which would be inappropriate in a complex and fast developing area. Hopefully this will lead to EU wide and, eventually, global standardisation of coding systems for medical devices in the best interests of patient safety."

Gary Lynch, COO GS1 UK commented:

 "Standardising its identification process is a key component in securing patient safety across the NHS. GS1 UK has more than 30 years of experience providing global standards for unique, automated identification to its members and working with the NHS on this initiative make sense for both of our organisations. We look forward to rolling out this project as soon as possible to make hospitals and surgeries safer for patients."

AIDC and theatre management systems will dramatically reduce the risk of wrong site surgery due to misidentification of the patient.

The strategy document '*Coding for success – simple technology for safer patient care'* launched by Lord Hunt today will encourage further use of product coding on a voluntary basis within industry and sets out a programme of action that will facilitate change both in the NHS and industry on a voluntary basis.

At Birmingham Heartlands Hospital, improved patient identification and checking

procedures using radiofrequency identification tags in a day surgery unit have improved efficiency so that an extra minor or intermediate procedure can be done on each list. This will save the Trust £270,000 per year.

Ends

Notes

1. For a copy of the publication *Coding for Success: simple technology for safer patient care* see: www.dh.gov.uk

2. AIDC technology has the potential to tackle mismatching errors in particular, as well as bringing other efficiencies and cost savings. Key applications include:

> **Verification** – a major application of AIDC is to verify the identity of an item, person or procedure and link this with the member of staff giving their care. A hand-held computer with a built-in scanner can be programmed with protocols for procedures such as blood transfusion. The details of the treatment for each patient are downloaded from the hospital system. The handheld computer can be taken to the bedside, and prompts the clinician to follow each step of the protocol, including scanning their own name badge, the patient's wristband and the blood bag to verify the right patient is receiving the right blood Turner CL, Casbard A, Murphy MF. *Barcode technology: its role in increasing the safety of transfusion.* Transfusion. 2003; 43: 1200-9..

> **Data capture** – there are many situations where serial numbers or reference numbers need to be entered into electronic records. Using AIDC to enter the information eliminates the risk of manual keystroke errors. Studies of 2 dimensional bar-coding compared with paper based systems record a 17.68% difference in identification errors, with bar-coding almost eliminating identification errors A Billittier IV, P Lupiani, G Masterson, T Masterson and C Zak (2003) *Electronic Patient Registration and tracking at Mass Vaccination Clinics*, 9 (5), 401-410. It is also useful for encouraging the use of the NHS number where transcription errors in the ten digit number are sometimes perceived in the NHS as a major obstacle to its use.

> **Supply chain issues** – effective track and trace of goods improves stock control so the right supplies are available in the right place at the right time. Unique product codes can be used on individual high value items as an anti-counterfeit measure. Linking patients to the supply chain – by recording product information in patient records – can help to identify batches where a patient or patients have had an adverse reaction.

3. Case study examples

In Leeds Teaching Hospitals, the Catheter Labs have reduced stock levels from £1.6

million to £700,000, including 983 products lines. The average spend per day is £30k, which amounts to approximately 4.5 weeks cover and 11 stock turns per year. Now orders are place twice weekly on an electronic system instead of twice daily on a paper system, reducing staff time dramatically and reducing the costs of the purchasing process from up to £7.05 per line to 39 pence.

At the Oxford Radcliffe Hospitals the electronic blood transfusion system the reduced time taken for each procedure is estimated to equate to personnel savings of £17.44 for each transfusion. For their 30,000 transfusions per year, this amounts to total savings of £523,200 per year.

One trust deploying a robotic dispensing system saw a reductions in time spent in the dispensary of 34% for pharmacists and 51% for technicians, enabling far more time to be spent on the wards working directly with patients and ward staff.

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