The cost of patient misidentification in healthcare environments.

However busy the hospital environment, and however much pressure budgets and staff are under, patient safety has to be the number one priority. The 'Five Rights' of patient care - right medication, right dose, right time, right patient and right route – specify the requirements of an optimal patient medication administration process, and give healthcare management a template that supports the minimisation of errors in patient identification.

It's also a fact of life that no process or person can be guaranteed free from the capacity to make mistakes. Whatever the preventive measures taken, errors in healthcare provision are still reported to be the seventh most common cause of death in critical care[1]. Misidentification, wrong dose, exceeded shelf-life, labelling errors, misplaced patient notes, pressure of workloads; any and all can and do put patients at risk and are potentially fatal.

The extent to which patient misidentification happens is widely under-estimated and under-reported by clinical staff, as very often they are unaware that an error has occurred, but near miss incidents are reported on a daily basis in healthcare environments worldwide. In terms of statistics available, a review of medication error incidents reported to the National Reporting and Learning System in the UK over six years between 2005 and 2010 recorded 525,186 incidents. Of these, 86,821 (16%) of medication incidents reported actual patient harm, 822 (0.9%) resulted in death or severe harm[2]. Clearly any technological advances that help to reduce or eliminate errors are central to improved patient safety and more cost-effective ways of working.

A study was conducted in two large hospitals in Merseyside, UK to determine the current burden of adverse drug reactions (ADRs) in the NHS[3]. The study found that of 18,820 patients aged over 16 years admitted to hospital over a six-month period, there were 1,225 admissions judged to be related to an ADR, giving a prevalence of 6.5%. Of these 1,225, the ADR was judged to have led directly to the admission in 80% of cases.

The majority (72%) of ADR-related admissions were judged as avoidable, including medication errors. The median bed stay was eight days, accounting for 4% of the hospital bed capacity, and the projected annual cost of these admissions to the NHS was £466 million.

In addition to medication-specific incidents, other major areas where patient misidentification can occur include:

- Performance of the wrong procedure on a patient
- Serious delays in commencing treatment on the correct patient, for instance, mislabelling of an abnormal blood sample
- Patient is given the wrong diagnosis
- Patient receives inappropriate treatment
- Patient is over-exposed to radiation
- Wrong patient is brought to theatre
- Cancellation of operations due to misfiling of results, GP letters and correspondence

Patient interventions occur in a variety of locations and are provided by large teams of clinical and non-clinical staff, many of whom work shifts. Healthcare environments are purposefully but unavoidably busy, with patients themselves, staff and visitors constantly coming and going.

The trend towards limiting working hours for clinical team members leads to an increased number of people caring for each patient, increasing the likelihood of hand-over and other communication problems. Working at pace brings its own risks – for the most experienced staff, there will always be situations where attention is diverted, or a patient's handwritten notes misread.

Today's advances in mobile, digital identification, printing and labelling make it easy to print patient-related documents at bedside and confirm the identity of the patient in question. Mobile or handheld barcode printers increase patient safety, reduce mistakes, workarounds and overall costs. Labels printed with mobile thermal handheld barcode printers are printed on-demand so an exact number of labels is printed, based on the orders per patient. By cutting out visits to the nursing station to pick up documents, and making visual confirmation of identity, many of the threats posed by patient misidentification are eradicated.

For more information about how VisionID mobile printing solutions could help you to mitigate risk, improve patient safety and increase organisational efficiency, visit www.visionid.ie

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3. Pirmohamed M, James S, Meakin S, Green C, Scott AK, Walley TJ, Farrar K, Park BK, Breckenridge AM, Adverse drug reactions as cause of admission to hospital: prospective analysis of 18,820 patients. BMJ, 2004:329:15–19.

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Empowering Enterprise Intelligence

Head Office: Unit 4C Gurtnafleur Business Park, Clonmel, Co. Tipperary, Ireland
Telephone: +353 (0)52 618 1858 Facsimile: +353(0)52 618 1860 Email: info@visionid.ie

Limerick Office: Roselawn House Office Services, University Business Complex, National Technology Park
Telephone: +353 (0)61 514 683 Facsimile:+353 (0)61 749 873 Email: midwest@visionid.ie

Dublin Office: 3013 Lake Drive, Citywest Business Campus, Dublin 24, Ireland
Telephone: +353 (0)1 524 1586 Facsimile: +353 (0)1 443 0560 Email: dublin@visionid.ie

North. Ireland Office: 20 Adelaide St. Belfast, BT2 8GB, Northern Ireland
Telephone: +44 (0)28 9099 8504 Email: ni@visionid.co.uk