MISDIAGNOSIS LEADS TO BREAKDOWN IN DOCTOR-PATIENT RELATIONSHIP

Charity urges NHS to provide doctors with diagnostic support systems to help reduce levels of misdiagnosis

Sixty percent of people fear illnesses will not be correctly diagnosed when they visit their GP, a YouGov survey commissioned by The Isabel Medical Charity reveals today. Concern about misdiagnosis also remains a significant factor when patients undergo treatment at NHS Hospitals – with almost one in three (31%) agreeing this is the type of medical mistake which concerns them most according to the research.

A third of respondents had directly experienced, or knew someone who had experienced, a medical error, with 57% of the mistakes due to misdiagnosis.

The findings follow a National Audit Office report, which found that accidents within the NHS needlessly kill 2,000 patients a year[1].

In response, The Isabel Medical Charity last night stepped up its campaign for the widespread adoption within the NHS of diagnostic support systems. The charity's own, unique system is called Isabel, and was developed to aid doctors in making diagnoses as just one potential solution to help reduce the level of diagnostic medical error in the NHS.

Mr Jason Maude, Co-founder of The Isabel Medical Charity, says: "It is clear that misdiagnosis is a huge issue for clinicians and the general public. Patients are right to demonstrate such concern. My own daughter very nearly died after being misdiagnosed so I know that the aftermath of even one mistake can be devastating, and our report shows that 32% of the medical errors experienced by our respondents led to death or permanent harm."

Although the NHS, through Connecting for Health, is spending £6.2bn on installing electronic medical records across the UK, information systems designed to actively help doctors in making clinical decisions are only scheduled for the final phases of the programme which would mean delivery by 2009 at the earliest, even though many of these systems are available and working today.

Sir Brian Jarman, former president of the BMA and Head of the Dr Foster Unit at Imperial College commented: "Connecting for Health's stated objective is to harness information technology tools for the benefit of patients. Although their delivery timetable is centred around big projects like 'Choose and Book' (which is already 18 months behind schedule) it could be very helpful for clinicians if practical and clinically proven[2] systems like Isabel, which I understand could be put to practical use immediately, were to be made more generally available".

US physicians have been quick to reap benefits from the Isabel system and five top children's hospitals in the US have already adopted the paediatric version.

Dr John Bergsagel, a paediatric oncologist at Atlanta and Emory University School of Medicine, claims the technology has helped him identify the right diagnosis several times. The most dramatic example involved a patient where all signs initially pointed to acute myelocytic leukaemia, he comments:

"The Isabel system reminded me of a rare form of leukaemia which we had not considered and requires a bone marrow transplant. Aggressive chemotherapy would

not have been helpful and potentially very dangerous. Isabel prevented a serious error in diagnosis and is likely to have saved this patient's life."

More than two thirds (67%) of those questioned for the survey, agreed that they would approve or be reassured if their doctor referred to a specialised computer system which could remind them of likely diagnoses.

[1] Report published 3 November 2005
[2] See notes on research in point three below

-ENDS-

For further information on the survey or to arrange an interview please contact:
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Editors' Notes

1. **The survey:** Research was conducted online by YouGov between 14th and 17th October 2005. YouGov interviewed a representative sample of 2,155 GB 18+ adults. Results are weighted to be representative of the GB adult population. A copy of the full findings is available on request.

2. **History of the Charity:** Jason and Charlotte Maude founded the project in July 1999 together with Dr Joseph Britto, then Paediatric Intensive Care Consultant at St Mary's Hospital in Paddington, London. Three months prior to this, the Maude's 3-year-old daughter, Isabel, had been transferred by a police escorted ambulance from her local hospital to St Mary's where she was to spend two months in hospital, including a month on Intensive Care, after developing multiple organ failure and suffering a cardiac arrest. All this because doctors had failed to recognise that the symptoms she was developing were potentially fatal complications from chicken pox. During their time in hospital, the idea of a diagnostic tool slowly evolved during conversations between the Maudes and Dr Britto who gradually gathered the support of a number of high profile professionals from hospitals around the UK and aboard to start work on the Isabel system.

   Apart from the human cost of the error, the cost to the NHS of this mistake is estimated at £150,000. Had the illness been recognised and treated earlier the cost would probably have been no more than £50 of antibiotics. The charity estimates that the cost to the NHS of preventable diagnostic error to be at least £500million per year not including any subsequent litigation costs or the associated human costs.

   Today the Isabel system, now developed and marketed by the charity's trading subsidiary Isabel Healthcare Ltd, covers all age groups and all major medical specialities and is in use across top hospitals in the US, UK, Ireland and India.

   For further information: www.isabel.org.uk

3. **Research into the effectiveness of the Isabel diagnosis reminder system:** Since 2001 the Isabel system has undergone a rigorous validation programme much of which has been funded by the Department of Health.
   - In studies to demonstrate its accuracy Isabel has consistently shown that, when given a patients initial signs and symptoms, the correct final diagnosis will be included in its list of suggested diagnoses 95% of the time.
   - In studies to show what effect the use of Isabel could have on a clinician's diagnostic skills the results have shown that between 10% and 14% of times that a clinician uses Isabel he will be reminded of an important diagnosis that he had not thought of. In more than half of these occasions it turned out to be the patient's actual final

diagnosis. These studies demonstrate strongly that Isabel could help clinicians reach patients accurate diagnoses more quickly.

4. **Peer reviewed research on misdiagnosis:** Unfortunately there have been no studies carried out in the UK specifically on misdiagnosis which was why the charity commissioned this YouGov survey. However studies have been carried in many other countries, especially the USA. We highlight below three significant articles which have appeared during 2005 alone.

   - **QUANTUM OF DIAGNOSIS ERROR:**
     Gordon D. Schiff, Seijeoung Kim, Richard Abrams et al. **Diagnosing Diagnosis Errors: Lessons from a Multi-institutional Collaborative Project**. Advances in Patient Safety 2005; 2:255-278
     A recent multi-institutional collaborative project by Schiff et al, funded by the Agency for Healthcare Research and Quality (AHRQ), reported that diagnosis errors far outnumber medication errors as a cause of malpractice claims (26 % versus 12 % in one study;32 % versus 8 % in another study). A Harris poll commissioned by the National Patient Safety Foundation found that 1 in 6 people have experienced a medical error related to misdiagnosis. Most medical error studies find that 10–30 % (range = 0.6–56.8 %) of errors are errors in diagnosis. A recent review of 53 autopsy studies found an average rate of 23.5 % major missed diagnoses (range = 4.1–49.8 %).
   - **FACTORS CONTRIBUTING TO DIAGNOSIS ERROR:**
     Mark Graber, MD. **Diagnostic error in internal medicine**. Arch Intern Med. 2005 Jul 11; 165(13):1493-9
     What factors contribute to diagnosis errors? A July 2005 study of diagnosis error by physicians, Mark Graber, M.D., chief of medical service at the VA Medical Center in Northport and vice-chair of the Department of Medicine at SUNY Stony Brook, NY, analyzed 100 cases of diagnostic error involving internists. 90 cases involved injury, including 33 deaths. The underlying contributions to error fell into 3 natural categories: “no fault,” system-related, and cognitive. 7 cases reflected no-fault errors alone. In the remaining 93 cases, we identified 548 different system related or cognitive factors (5.9 per case). System related factors contributed to the diagnostic error in 65% of the cases and cognitive factors in 74%. Failure to continue considering reasonable alternatives after an initial diagnosis was reached, was the single most common cause.
   - **INCLINATION TO USE CLINICAL DECISION SUPPORT:**
     Charles P. Friedman, PhD et al. **Do Physicians Know When Their Diagnoses Are Correct? Implications for Decision Support and Error Reduction.** J Gen Intern Med 2005; 20:334-9.
     The decision to seek help or use a diagnosis decision support system can be predicated by the alignment between a physician’s confidence in a diagnosis and correctness of the diagnosis. A study by Friedman et al at the Centre for Biomedical Informatics, University of Pittsburgh, PA, found that subjects’ confidence and correctness were only “mildly” aligned. Residents were overconfident in 41% of cases where their confidence and correctness were not aligned, whereas faculty was overconfident in 36%. Residents & faculty (correctly diagnosed 44% and 50% of difficult cases, respectively) were overconfident, placing credence in a diagnosis that was in fact incorrect, in 15% and 12% of cases.

Doctors own views of medical mistakes: **In June 2004 a survey by Doctors.net.uk of 2,582 doctors showed that 80% had either seen a colleague make a mistake or had made one themselves that had had an impact on the care of a patient.**