

Health

Reducing medication errors



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Last week I looked at the extent of some medical errors and a list of 'no pay' procedures which an American medical insurance company has introduced following the volume of mistakes occurring regularly. Three more items on this list include:

Air embolism is where gas bubbles get into the bloodstream. On the 'no pay' list this is the only item to have an improved error rating. This may be due to improved monitoring or surgical techniques. One study from 1980 to 1995 shows a decrease in deaths by 50 per cent in the Minneapolis area. (*J. Clin. Epidemiol.*, 2000). Other studies offer the same positive results, so one could assume that this item may not be on the list for too long.

Giving a patient the wrong type of blood during a procedure is a major concern and can result in death. The risk of a blood transfusion error is reported to be 'significant' in American hospitals according to a study which assessed incidents in New York State over a 22-month period (*Transfusion*, 1992). In the UK, 46 people died as a direct result of a blood transfusion between 1996 and 2003, according to figures gathered by SHOT (Serious Hazards of Transfusion) during a survey. Additionally, 253 patients suffered a serious reaction, including acute lung injury and infection (*BMJ*, 2005).

Chest infections are generally a complication following heart surgery. There have been various

studies, one of which traced patients and discovered 2.65 per cent had developed this problem. Those most likely to develop it were either obese or had chronic obstructive pulmonary disease (*J. Cardiothorac Surgery*, 2007).

Most medical mistakes are related to the administration of drugs, either because of a wrong dosage or an inappropriate drug for the condition. In one study it was discovered that two-thirds of drugs prescribed in a hospital were 'inappropriate' (*J. Am. Med. Inform. Assoc.*, 2008).

Researchers from the University of London have identified 88 reasons why a prescription can go wrong. Each of these errors is down to mistakes or misjudgments by hos-

pital staff, due to fatigue, or complete ignorance of the drug relating to its correct usage and dosage.

The researchers had spent several months in a hospital pharmacy unit. When interviewed later, the doctors involved admitted to a lapse in concentration, usually due to extra workloads or being interrupted when writing the prescription (*Lancet*, 2002).

A study in Australia discovered that four per cent of all hospital admissions, with up to 30 per cent of elderly patient admissions, were the direct result of a medication error (*Int. J. Qual. Health Care*, 2003). Elderly patients appear to be regular victims of prescribing errors. However, they are taking more medication than any other section of the population. In one study of 389 geriatric patients, 107 were given prescriptions for drugs that were totally inappropriate for use by the elderly (*Am. J. Geriatr. Pharmacother*, 2006).

Let's look at the solution. The action of the American medical insurance company will probably not reduce the number of errors, but some think it will force hospitals to close. So, either way, the patients pay the price. However, there is another way to help to control these mistakes.

An organisation known as GS1 is present in 108 countries. It aims to help create a world where procedures and information about them moves efficiently and securely for the benefit of businesses and the improvement of peoples' lives, everyday, everywhere. GS1 covers a huge array of areas which require

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standardisation and safety, in their annual report of 2006/2007 they explained that as an organisation they continue to reach out to new sectors and new industries.

As such, in 2007, GS1 brought together key members of the healthcare sector into a single global user group, who agreed to work through GS1 to solve supply chain issues. Joe Pleasant, a member of the GS1 HUG Leadership Team, says: "Accuracy of the product data exchanged is crucial in the relationship between hospitals and their partners. GS1 offers an excellent platform for designing global harmonised solutions to improve patient safety as well as efficiency of the supply chain."

The GS1 Healthcare group brings together hospitals, pharmaceutical companies, medical device manufacturers, transporters and more. These companies, many of whom are competitors, work together under the leadership of GS1 to develop standards that will increase patient safety and improve patient care through reduced medication errors and improved product traceability.

More on the work of GS1, how they are ably represented in Malta, and what the future holds for the reduction of fatal errors and medication mistakes next week.

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