Learning through Incident Reporting: Time to consider a national incident reporting system

Abstract:

In 1999 the United Statesâ Institute of Medicine (IOM) issued a report entitled â To Err is Human: Building a Safer Health Systemâ which estimated that between 44,000 and 98,000 patients die each year in US hospitals as a result of preventable medical errors. According to the report, deaths from preventable medical errors are more common than deaths due to car crashes, AIDS and breast cancer. [1] Available evidence suggests that the rate of medical error is also unacceptably high in Irish hospitals. A recent study by Grimes et al. (2008) in an Irish teaching hospital found that 65.5% of patients had at least one error in their medication documentation at discharge. [2] The Clinical Indemnity Scheme (CIS) which operates the STARSWeb clinical incident reporting system for publicly-funded healthcare organisations recorded 6,882 medication incidents in 2010. [3] [4] This is likely to be an underestimate as it has been suggested that only 10% of such incidents are reported.

Healthcare can learn lessons from other industries. Notwithstanding the recent Deepwater Horizon disaster, the oil and gas industry has a good safety record in recent decades. However in the early days of oil and gas exploration serious and even fatal accidents were considered inevitable. The turning point came with the Piper Alpha disaster of 1988 in which 197 people died. Oil and gas workers are now considered safer on site than when going about their daily lives. [5] This excellence in incident management has been achieved by the rigorous implementation of Safety Management Systems (SMS). SMS involves the use of risk assessment as a tool to focus on the structure and magnitude of any identifiable risks. [5] The change in culture in the oil and gas industry came from the realisation that safety performance can influence economic performance, as cutting corners in safety can result in costly adverse incidents.

The management of risk in the aviation industry has evolved from learning through incident reporting. Although there are a number of reporting systems in the industry the most widely accepted is the Aviation Safety Reporting System (ASRS). [6] ASRS is a voluntary independent system which allows pilots and other airplane crew to report near misses confidentially. The confidential nature of the reporting promotes the gathering of information. Pilots may report one safety incident every five years without fear of disciplinary action [6] In contrast to the proactive safety cultures of the industries discussed above, the culture in medicine can be described as reactive at best. This may be as a result of differences in the way the burden of risk is shared. While oil and gas workers are the most immediate victims of a serious error and pilots share the risks of flying with passengers, clinicians are insulated from the risks borne by their patients.

Effective incident management affords healthcare organisations the opportunity to learn from their mistakes. Incidents should be recorded as a basis for investigation, analysis and learning. The investigation should take a systems approach to error occurrence. A systems approach will uncover the latent conditions which allowed the incident to occur as well as the active failures of staff involved in the incident. [7] Analysis should include the classification of the incident to facilitate standardisation and comparison across clinical settings. Analysis of large numbers of incidents allows the detection of trends which should prompt the issuing of patient safety alerts. Analysis at national level may lead to recommendations for changes to clinical practice. [7]

An effective incident reporting system should be non-punitive, confidential and independent. The concept of a â just cultureâ , in which people are not punished for mistakes but neither is reckless or unsafe practice tolerated, has largely replaced the concept of a â no blameâ culture, which may be open to abuse. [8] The system should facilitate expert analysis of submitted reports and disseminate recommendations in a timely manner. Recommendations should be systems-orientated rather than focusing on individual performance. Participating organisations should implement recommendations wherever possible. [7] The system should be supported by a universal patient safety classification and facilitate comparison of like units across jurisdictions. The data gathered should be capable of use at state, national and international level. [7] Effective systems contribute to quadruple-loop learning by contributing to improvements in clinical practice at individual, organisational, national and international level. [9] The Australian Advanced Incident Management System (AIMS) is an example of an effective incident reporting system. AIMS was developed to capture data from near misses to serious incidents from a wide variety of healthcare settings. The system permits data aggregation and facilitates trend analysis. It receives 10,000 to 20,000 incident reports per million population each year.

The issue of whether incident reporting systems should be voluntary or mandatory in nature has provoked much debate. Voluntary reporting systems rely on trust, are run independently and their primary purpose is to improve patient safety. Such systems frequently generate large numbers of reports ranging from near misses to serious incidents, allowing trend analysis and permitting the issuing of timely safety bulletins. [7] Effective voluntary reporting systems have been shown to measurably improve patient safety. [4] Mandatory systems aim to make healthcare providers accountable for patient safety incidents. They are government-backed, place an obligation on providers to submit incident reports and administer sanctions for non-compliance. These systems generally produce low numbers of reports on incidents which cause serious patient harm or death.

Medical errors are costly in human, social and economic terms. Healthcare organisations have a duty to learn from these incidents in order to prevent future patient harm. However the evidence that this is happening in the Irish context is weak. Effective incident management systems have been shown to measurably improve patient safety internationally. It is time to consider implementation of a national voluntary incident reporting system for Ireland.

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