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Reducing error and improving patient safety

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As veterinary surgeons, the safety of our patients has always been a priority. However, the formal concept of 'patient safety' has only filtered down from our medical colleagues relatively recently. Indeed, this concept has developed rapidly in the medical profession over the last 25 years. Clearly, error and complications have always been associated with health care, although specific interest in this area was, perhaps understandably, limited. However, in 1991 the 'Harvard Medical Practice Study' highlighted the problem of error and adverse events in human health care (Brennan and others 1991; Leape and others 1991). This study showed that 3.7% of hospitalised patients suffered harm and that 13.6% of these incidents resulted in death (Brennan and others 1991; Leape and others 1991). Since this time there has been increasing focus in the medical profession on reducing complications and improving patient safety. Patient safety has been defined as "the reduction of risk or unnecessary harm associated with health care to an acceptable minimum" (Runciman and others 2009). This has led to research looking at ways to improve patient safety in a variety of disciplines. One notable development is the World Health Organisation (WHO) Surgical Safety Checklist, designed to reduce surgical complications (Haynes and others 2009). The use of the checklist has resulted in a significant decrease in complications and mortality associated with surgery (Bergs and others 2014).

Despite the increasing amount of medical literature focused on patient safety there has been a lack of similar focus in veterinary medicine. Approximately four years ago I wrote an editorial in the *Veterinary Record* on the subject of 'reducing surgical complications' (Tivers 2011). At that time a number of veterinary hospitals were using a surgical safety checklist (Gasson 2011). Subsequently there has been a single paper describing the use of a safety checklist in veterinary practice (Hofmeister and others 2014). This study assessed a checklist looking at complications associated with anaesthesia. The authors found that the use of a simple checklist significantly reduced the number of adverse events. In addition there have been a number of editorials regarding patient safety in veterinary practice and a group discussion of the use of critical incidence reporting systems in equine anaesthesia (Armitage-Chan 2014; Hartnack and others 2013; McMillan 2014; Oxtoby 2015). However, to the author's knowledge there have not been any additional studies specifically investigating patient safety in veterinary practice. It is clear that the concept of patient safety is in its infancy in the veterinary profession and there is very limited evidence currently available.

The paper by Oxtoby and others (2015) summarised in this issue of the *Veterinary Record* is the first step in addressing this deficiency and hopefully will be the catalyst for further research in this vital area. This novel study investigated the causes and types of error seen in veterinary practice and found similarities between the veterinary and medical professions. Cognitive limitations, including mistakes, lapses and slip-ups, were the most common cause of error reported in the study. In the medical profession it is accepted that

doctors make mistakes and that this results in complications and death (Brennan and others 1991; Kohn and others 1999). This has led to a greater understanding of how mistakes happen and the most common types of error, leading to the development of strategies to reduce risk and thus increase safety. In the veterinary profession mistakes also happen but there is no formal system for recognition and reporting. Indeed it is likely that significant barriers to the reporting of error exist in the veterinary profession, with reluctance to discuss mistakes for fear of blame and / or punishment (Hartnack and others 2013). By establishing the nature of the problem in veterinary practice, Oxtoby and others have created a framework for future efforts to improve recognition and reporting of error and to therefore improve patient safety within the veterinary profession.

Clinical Governance is important for improving patient safety. This is essentially the monitoring of health care performance in order to improve outcomes for patients. This was defined in the UK by the NHS as *"A framework through which NHS organizations are accountable for continually improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish"* (Sally and Donaldson 1998).

Clinical Governance has several different components, including Clinical Audit. This is the measurement or review of clinical efficacy and is used to identify deficiencies and implement changes to improve patient care. Clinical Governance is a growing concept in the veterinary profession and is part of the Royal College of Veterinary Surgeons' 'Code of Professional Conduct for Veterinary Surgeons' in the UK (RCVS 2012). Several articles have described Clinical Governance and

Audit in the veterinary setting (Mair 2009; Viner 2009, 2010). This is an important concept, both for individual practitioners and the profession as a whole. Clinical Audit is an important tool that can be used to improve performance for a practice or group of practices. However, it also has the potential to effect change on a larger scale.

In the veterinary profession Clinical Governance and Audit beyond the individual practice may be more challenging, as we do not have the same scale or administrative structure as the NHS. Indeed collaboration and multi-centre studies may be the best way of gathering sufficient data to inform future improvements in care. The use of Clinical Governance and Audit to improve outcomes for horses undergoing colic surgery by creating a large international database from multiple hospitals has been proposed (Mair 2009; Mair and White 2005, 2008). This concept has great potential in providing a sound evidence base for improvements for a wide variety of conditions in different veterinary species.

There have been advances in the concept of patient safety in the veterinary profession over recent years. However, we are now in a position to turn these concepts into a reality. There is a wealth of opportunity for further development and research in this crucial area. This will then translate into better care, safety and clinical outcome for our patients.

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