

# Chapter 5

## A New Era for Safety Measurement

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### ABSTRACT

*This chapter presents current systems thinking concerning patient safety and explores what patient safety actually means, allowing a foundation for a critical review of tools used for safety measurement. Content considers a range of content from hard measures to softer cultural perspectives, thus ensuring that the patient view is not forgotten.*

### INTRODUCTION

Wachter (2008) attributes the modern patient safety movement to the publication of the Institute of Medicine (IoM) report 'To Err is Human: Building a safer healthcare system' (Institute of Medicine, 1999). This report brought together the findings of the first two large scale attempts to quantify medical error in healthcare (Brennan et al., 1991, Leape et al., 1991). The IoM report, using the data of these two studies, equated the death rate resulting from medical error to the crashing

of two jumbo jets a day, which prompted global responses. Healthcare organisations worldwide embarked upon similar studies to quantify their medical error rate (Wilson et al., 1995, Vincent et al., 2001, Baker et al., 2004, Soop et al., 2009, Zegers et al., 2009) and drew similar conclusions: the rate of error was simply unacceptable and patient safety improvement efforts ensued. The instigation of the patient safety movement may have resulted from this report, but the methodology and conclusions it presented are not without criticism. The research community has responded to these criticisms by attempting to address them. Despite the academic and indeed professional

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response, the measurement of *safety* has room for improvement. And *safety* is written tentatively because as will be explored in this chapter, doubt is presented over whether what is measured is safety, or simply components of safety.

As life expectancies increase and populations age, further burden is placed on healthcare systems to meet the demands of the long term sick, elderly and frail. To meet these demands during times of economic crisis, governments and organisations seek to revolutionise the care model from one of expensive secondary care dependency to cheaper, primary and community care, particularly home care. The evolving care model has resulted in system alterations including: changing stakeholder responsibilities; reduced healthcare organisation control and influence; and greater emphasis on patient participation. In a care model that is driven by improving quality of life rather than achieving health, are clinically driven, disease independent indicators of safety appropriate?

This chapter begins by discussing the state of the art of current systems thinking in patient safety, followed by an exploration of what patient safety means and its associated lexicon. Once a common understanding has been achieved, it investigates tools for safety measurement, critically reviewing their fitness for purpose in their original context. Succeeding this, the evolving care model is introduced and the appropriateness of the tools in this new context is discussed. Finally, we identify gaps in the research and how these might be addressed. We begin with an understanding of patient safety.

## UNDERSTANDING PATIENT SAFETY

### What is Patient Safety?

The answer may seem obvious at first thought, but ask yourself ‘what is the definition of patient safety?’ Is it clear or is it ambiguous and lacking clarity? Throughout the literature, authors have adopted different stances on what the definition

of patient safety is: a summary of examples is presented in Table 1. Predominantly these definitions revolve around the freedom from accidental injury (Institute of Medicine, 1999), through the reduction and/or mitigation of risk of unsafe acts (Davies et al., 2003, National Steering Committee on Patient Safety, (2002)) and avoidance and prevention of adverse outcomes (Cooper et al., 2000).

The inconsistency of language in the patient safety literature inspired the World Health Organisation (WHO) to develop an international classification and their definition is congruent with the systems and human factors approach to safety as advocated by Reason (Reason, 1995), which is more thoroughly discussed in the next section.

Table 1. Definitions of patient safety

Source	Definition
Institute of Medicine (1999) (Institute of Medicine, 1999)	“Freedom from accidental injury” (pg. 18)
Cooper, Gaba, Liang et al (2000) (Cooper et al., 2000)	“Patient safety has to do primarily with the avoidance, prevention, and amelioration of adverse outcomes or injuries stemming from the processes of health care itself... Safety emerges from the interaction of the components of the system. It is more than the absence of adverse outcomes and it is more than avoidance of identifiable “preventable” errors or occurrences” (pg. 2)
National Steering Committee on Patient Safety (2002) (National Steering Committee on Patient Safety, (2002))	“The state of continually working toward the avoidance, management and treatment of unsafe acts within the health-care system.” (pg. 37)
Davies, Hebert and Hoffman (2003) (Davies et al., 2003)	“The reduction and mitigation of unsafe acts within the health-care system, as well as through the use of best practices shown to lead to optimal patient outcomes” (pg. 12)
Runciman, Hibbert, Thomas et al (2009) (Runciman et al., 2009)	“Reduction of risk of unnecessary harm associated with healthcare to an acceptable minimum” (pg. 21)

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