Editorial

Beyond Babel: prospects for a universal patient safety taxonomy

In the Biblical story of the Tower of Babel, God foiled man’s attempt to build a tower reaching to the heavens.

And the Lord said, ‘Behold, they are one people, and they have all one language; and this is only the beginning of what they will do . . . Come, let us go down, and there confuse their language, that they may not understand one another’s speech’. Genesis 11: 6–7

Those familiar with the field of patient safety will recognize that confusing language does not, in fact, require divine intervention. In the space of a few years, a bewildering language of medical error and iatrogenic injury has evolved, bedeviling efforts to catalogue and understand this phenomenon.

The terminology of safety is perplexing on a good day, and near impossible on a bad one. Consider a few examples of patient safety terms in common use. An ‘adverse reaction’ usually connotes an anticipated side effect of a medication or treatment. It is similar to a ‘complication’ of care. An ‘adverse event’, in contrast, signifies the presence of a medical care-related injury (anticipated or not). However, different users require different levels of harm in order to qualify an incident as an adverse event. A ‘preventable adverse event’ is an error by definition, but it is often difficult to ascertain preventability. A ‘near miss’, also called a ‘close call’, is synonymous with ‘potential adverse event’ and is always considered to be preventable. A ‘sentinel event’ refers to an incident that resulted in or might have produced a serious injury. A ‘serious reportable event’ is often not reported to public authorities, its name notwithstanding. One can see how this thicket of terms and concepts gets in the way of plain talk and thought.

Perhaps the Babel-ites had it easy.

To create a more coherent basis for patient safety improvement, the Institute of Medicine’s Committee on Data Standards for Patient Safety advocated the development of a more thoughtful and consistent approach to the management of patient safety information [1]. A standard vocabulary and classification scheme would provide for comparison of research findings, better benchmarking across health care organizations, the development of reliable regional and national event reporting, and allow for interoperability of computer systems that collect information about these incidents for analysis, public reporting, and policy making.

Jumping into the breach, a group of senior leaders from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has outlined a new and comprehensive scheme for defining and classifying medical errors—an error taxonomy. Featured in this issue of the Journal, the taxonomy bears serious consideration [2].

The taxonomy’s authors have done their homework. They observed the inconsistent ways that hospitals and clinics, regulatory agencies and accreditation bodies, and researchers organize and analyse medical errors and injuries. They critiqued many existing schemes as narrow and a-theoretical. They then created a taxonomy, drawing on a review of the literature that included human factors research, studies of root cause analyses, and previous classification schemes, and subjected it to expert review and pilot testing. The categories seem clear and sensible, incorporating the work of error luminaries such as Reason, Rasmussen, and others.

Despite the considerable influence of the JCAHO [3], the widespread adoption of any universal patient safety event taxonomy faces several major hurdles.

Firstly, a taxonomy’s creators must demonstrate the ‘usability’ of the approach under combat conditions. In other words, the taxonomy must be easily understood and used by practitioners in a variety of settings and without extensive, costly training. Can a single system serve the needs of users in organizations such as hospitals, clinics, malpractice insurers, and accreditation and regulatory bodies? Does one size truly fit all?

Secondly, the creators need to show that different users will classify the same event in the same way. This is a potentially daunting problem. Independent reviewers are good at coding the presence or absence of an event, but reliability drops precipitously when reviewers analyse the degree of harm or the presence of error [4–6]. The problem may be exacerbated when coding decisions are based on imperfect data from typical incident reports.

Thirdly, taxonomies need to organize information in a way that yields insights into the extent and nature of medical error and opportunities for improvement. A uniform nomenclature and classification system should allow for detection of patterns and trends in incident reports from diverse settings. It is not obvious, however, that a classification scheme can reliably capture the ‘story’ of the event and how it unfolded. A taxonomy needs to accommodate or at least index the narrative account of incidents. As Cook and colleagues [7] argued, ‘Safety . . . is an emergent property of the ways in which the technical, individual, organizational, regulatory, and economic factors of health care join together to create the settings in which events—the best ones and the worst ones—occur’. Without the context and texture of the story, learning may be lost.

A final and most difficult challenge is one of encouraging, coercing, or seducing users into adopting a shared taxonomy. Since change is costly, the new system must offer something that the old one does not. In settings without a strong tradition...
or commitment to a particular taxonomy, the new approach offers the opportunity for easy benchmarking, the possibility of early access to technology, and the good graces of the JCAHO. Paradoxically, the greater challenge may come from researchers and practitioners who were early innovators in patient safety and who have invested heavily in their own home-grown nomenclatures. In addition, medical licensing boards and health departments rely on event definitions that are enshrined in law, based on legislators’ beliefs about the most effective way to ensure public health. Written without the benefit of modern safety science, it may be difficult to create the public consensus and political will to change laws that appear to hold health care accountable to the citizens.

According to author Rita Mae Brown [8], ‘Language exerts hidden power, like a moon on the tides’. The words we use and the categories we choose help us to perceive the world. The creation of a standard patient safety event taxonomy may reduce the din that interferes with honest discourse about a difficult subject. At minimum, it may provide an accounting system for tabulating harms and putative errors. At best, it could constitute the infrastructure required to build an international community of learning about how to understand and prevent medical error. Sharing a common language may be only the beginning of what we will do.

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References


2. JCAHO Patient Safety Event Taxonomy: A standardized terminology and classification schema for near misses and adverse events. Int J Qual Health Care 2005; 17: 00–00.


