

Editorial comment

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Surveillance: the next step in the process

This issue of *Australian Infection Control* is devoted to the topic of surveillance of health care associated infection. The new Australian indicator definitions for surgical site infection (SSI) and blood stream infection (BSI) included herein provide a standardised methodology for infection surveillance and are a major step forward in measuring and, ultimately, improving health care outcomes.

The definitions are the culmination of a national effort to achieve consensus among all those with an interest in surveillance. The work contained in this issue represents a great achievement and heralds the beginning of a new era in infection surveillance in Australia.

It is widely accepted that infection surveillance programmes play an important role in identifying areas for practice improvement and in reducing infection. Surveillance is defined in the Oxford Dictionary as "close observation"¹, a view reflected in the NH&MRC document which states that surveillance involves identifying data collection needs, systematically collecting data, data analysis and communication of findings².

Interestingly, the term 'surveillance' used in the infection control literature refers to not just one, but two activities – the observational aspect and the action taken as a result of observation. This second, and arguably more important component of infection surveillance, is often overlooked. However, if surveillance really is intended to play a role in preventing health care associated infection, the findings must be applied to complete the 'loop' of this quality activity. Without the latter component, surveillance becomes a resource intensive and largely meaningless exercise.

The SENIC report³ demonstrated that the most effective ICPs (i.e. those with the lowest infection rates) used the results of their surveillance to put measures in place to change practice and improve outcomes. The evidence of their effectiveness (actions) is subsequently demonstrated in their surveillance (observational) data. This finding has been repeated in other studies. Gaynes *et al.*⁴ note that it is not the act of gathering, analysing and feeding back the results, but successfully changing behaviour that improves patient outcomes. The act of observation will not in itself lead to this end. Converting the knowledge gained through the observational process into actions that change behaviour and improve outcomes is the key to effective infection control practice.

The actions required to gain the desired result are complex. Behavioural theorists hold that all behaviour is learned, conditioned by events occurring during development that generate and support particular behaviours⁵. It is no easy task to change practices in the health care setting that are entrenched and habitual.

One tactic often employed to induce change is education. However, Haley⁶ notes that knowledge does not necessarily result in behavioural change. This is borne out by Pirwitz *et al.*⁷, who report that in a survey of ICPs, even those with substantial knowledge of infection control practice, showed little inclination to change their own behaviour even though they knew their practices were outdated. Larson *et al.*⁸ demonstrate the complexity involved in changing handwashing practice and the difficulty in achieving sustainable behavioural change.

Strategies for change

It is easy to become dismayed at the difficult prospect ahead when we know that human beings are inherently averse to change. There are essentially two options; preventing the behaviour in the first instance and employing measures based on change management theory to 'cure' people of the undesired behaviour.

Strategy 1: prevention

If we accept the notion that behaviour is learned, we should focus our efforts not on changing the behaviour of health care workers but on preventing the formation of unwanted behaviour in the first place. Ensuring that basic infection control practices are included in the curricula of all undergraduate health science courses is essential. However, learned desirable behaviours must be positively reinforced by the structure, culture and political climate of the workplace or the behaviour will not be supported.

Another option is to change the context within which people operate. Controlling or eliminating problem areas (tasks) which pose a risk to patients is one method. Some examples of this approach are the use of automated pharmacy systems to ensure appropriate antibiotic prescribing practices and the provision of hand disinfecting agents as an alternative to handwashing. If the aim is to improve outcomes, introducing methods to eliminate the potential for error in tasks that impact upon safety is a successful strategy.

Strategy 2: cure

Attempting to 'cure' unwanted behaviour already entrenched in health care workers is a less desirable strategy for improving health outcomes; implementing change is notoriously difficult and subject to many pitfalls. However, this is the reality that most of us are faced with.

To succeed in this endeavour, ICPs and members of the multi-disciplinary infection control team need to develop skills to assist them to lead and manage the process of change. Expert knowledge in infection control is not enough to ensure success; nor is the reporting of surveillance results. The ability to effect change is what makes a difference. A vital step towards this is the incorporation of change management theory in post-graduate infection control programmes.

Research provides numerous theoretical and practical examples of how to plan, lead, manage and ultimately institutionalise change. The theory of organisational learning as a means for change embraces the concept that organisations must learn in order to successfully adapt and improve, and that learning occurs as a result of discovery (new information) and action (behaviour change resulting from discovery)⁹. The major precept of this theory, that knowledge without action does little to improve

organisational performance, aligns closely with the view espoused in this editorial.

Sustainable change in behaviour is difficult to achieve and requires a broad approach to address the numerous, complex and inter-connected variables¹⁰. It is crucial that those aiming to entrench new behaviours are aware of the structural (formal and informal), political and cultural barriers to change. Change will be enduring only when the desired behaviour is anchored firmly in the culture of the organisation; when desirable practices become 'the way we do things around here'. The real target for behavioural change should be the organisation, not the individual.

Minimum standard definitions for infection surveillance in Australia enable us to obtain reliable information on the burden of health care associated infection in Australia. This is an important step forward. We must not, however, forget that it is the ability to use this data to improve the quality of care that will ultimately reduce health care associated infection. It is time now to focus on the second component of the surveillance process to ensure that our careful observations are applied in the manner intended – to improve health outcomes.

References

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