Addressing deficits in clinical practice can be challenging. Using a change-management tool can offer a structured approach to change.

The infection prevention nurse as change agent

In this article...
- Reducing healthcare-acquired infections associated with central venous catheters
- Changing clinical practice using a change-management tool
- Why the whole clinical team should be involved

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This article describes my role as an infection prevention and control nurse in helping staff to change practice and increase compliance with a local protocol to reduce the risk of bloodstream infection with meticillin-sensitive *Staphylococcus aureus* bacteraemias associated with Hickman-line insertion. It highlights the importance of using a change-management tool to implement and sustain change.

Healthcare-acquired bloodstream infections associated with a central venous catheter are a major cause of morbidity (Department of Health, 2007). A national prevalence survey undertaken in 2011 found that 25% of bloodstream infections were associated with central venous catheters (Health Protection Agency, 2012). Using national guidelines, such as the DH’s High Impact Intervention care bundles (DH, 2008), aims to standardise the care of these catheters to prevent bloodstream infections.

The national surveillance, investigation and reporting of MRSA bloodstream infection has been mandatory for all acute healthcare trusts in England since 2004. However, surveillance was extended more recently to include bloodstream infections that are associated with meticillin-sensitive *Staphylococcus aureus* (MSSA) (DH, 2011).

Local protocol
A central venous catheter is an invasive catheter placed into a large central vein close to the heart. It is used for the administration of long-term intravenous drugs and fluids; one type of central venous catheter is a Hickman line.

A local protocol covering the care of Hickman lines to prevent colonisation of MRSA/MSSA was adopted in Nottingham University Hospitals Trust. This aimed to reduce the incidence of MRSA/MSSA bloodstream infections, particularly in vulnerable groups of patients who require a Hickman-line insertion for long-term IV treatments such as chemotherapy.

Stimulating change
Two infections associated with a Hickman line, occurring on a ward, highlighted that local protocol for the care of these lines had not been consistently followed and may have contributed towards the acquisition of an MSSA bloodstream infection. Following discussion at an infection prevention and control team meeting, we conducted a review of current compliance with local protocol following Hickman-line insertion on the ward where the incidents occurred; this ward had a high level of patients at risk of infection. The aim was to identify any inconsistencies in practice and support the ward manager to instigate agreed measures that would ensure the procedures undertaken followed the local protocol.

As the infection prevention and control nurse reviewing practice, I was an outsider to the ward environment and had the advantage of reviewing practice in an objective way. According to Wright (1998),...
an outsider can often be perceived as an expert and can bring in fresh ideas and considerable change. The findings revealed inconsistencies in both medical and nursing practice; these issues became the main focus for generating and supporting a change to improve care.

We used a simple change-management tool (Lewin, 1951) to facilitate the strategy and subsequent changes that were needed to increase compliance. Lewin’s tool comprises three phases of change:

- Unfreezing – identifies the problem and awareness for the need to change;
- Moving – identifies ways to plan and implement the change; and
- Refreezing – focuses on integrating the change into everyday behaviour.

Lewin’s (1951) forcefield analysis underpins this approach and provides a framework for considering driving and restraining factors that can influence achieving a goal – such as national guidance helping drive toward the goal and restraining forces, such as time limitation, blocking movement towards the goal.

Identifying the need for change

A high level of staff engagement was important at this stage and I identified key champions with strong leadership skills who were in a position to drive forward and sustain any change in practice. According to Adams (2000) staff are more likely to embrace changes if they can see a benefit and be involved with the changes from the outset. Wright (1998) suggests change has to be owned to avoid the risk of it being short term.

The review revealed evidence that local protocol had been followed in the care of only four out of 12 patients. This was discussed with key staff members – comprising the ward manager, deputy sister, specialist nurse, ward nurses and consultants – to facilitate the development of a strategy to improve compliance. The main barrier to unfreezing was the time limitation for the ward manager, who would lead the change, and for myself, who would be supporting the change.

Planning and implementing the change

Lewin (1951) describes moving as a phase for planning and implementing a change. There are several ways this can be undertaken that can help change the agent to organise a successful change strategy. A decision tree can help visualise the consequences for a decision (Marriner Tomey, 2009), while Adams (2000) suggests sharing the change plan and auditing its effectiveness.

Following a meeting with the ward manager, it was agreed the protocol for Hickman-line care should be relaunched in order to raise awareness among staff. A copy of the protocol was placed in the clinic room where all staff could see it, and awareness of the protocol was raised at every nursing handover. Consultants were asked to document an additional instruction in the medical notes that Hickman-line care should follow the local protocol, cascading this good practice to the rest of the medical team. This was to increase overall awareness of Hickman-line care among doctors and nurses.

Wright (1998) suggests change should be a cultural shift of a whole system and, by targeting both staffing groups, it is possible to maintain a wider sustainability of the change.

Embedding the change

The final stage to the change strategy was refreezing, with the aim of integrating the change into everyday behaviour so it eventually becomes the norm. Adams (2000) suggests regular feedback to staff can help maintain momentum for reinforcing a change. A limitation with implementing the change is that doctors’ regular rotation to different specialties means the local protocol needs to be continually reinforced. As more permanent staff members, nurses are best placed to continue to reinforce best practice.

Adams (2000) suggests the true success and impact of a change requires regular monitoring so the effectiveness of the change has to be evaluated and shared with staff at the ward meeting and the ward governance meeting. According to Wright (2010) change is evolutionary and the change agent should be prepared for setbacks and to alter the approach should the need arise.

By maintaining effective communication with the ward manager and discussing any issues surrounding compliance, it is possible to continue to promote and support this ongoing change to practice to further reduce the risk of Hickman line-associated MRSA/MSSA bloodstream infections.

The ward was reaudited after three months to assess compliance. Practice has improved, with protocol being adhered to for medical and nursing care in four out of five patients. A high level of communication continues, with the ward manager still reinforcing the local protocol. To date there have been no further MRSA/MSSA bacteraemias associated with Hickman lines on the ward.

Conclusion

Acting as change agents, infection prevention and control nurses can collaborate with key champions to support a change to increase compliance with local protocols and reduce the risk of a healthcare-acquired MSSA bloodstream infection.

National guidance such as the manda-
tory reporting and investigating of MRSA/ MSSA bloodstream infections, combined with local evidence regarding MSSA bloodstream infections, have been the main drivers for the change. Lewin’s (1951) change-management theory of unfreezing, moving and refreezing change has been used to frame the changes to increase compliance. Increasing compliance by changing the attitude and behaviour of doctors and nurses remains a work in progress.

References


