

Preventing diabetes-related amputation: Introducing a new root cause analysis tool



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In 1999 it was estimated that the cost of care for people with healthcare-associated infections (HAIs) was more than £1 billion per annum (Plowman, 1999). Evidence-based guidelines for the prevention of HAIs in NHS hospitals in England were initially published by a multiprofessional group in 2001 (Department of Health, 2001), but despite this the incidence of HAIs remained high (National Audit Office, 2000; 2004). In 2007, hospital-acquired methicillin-resistant *Staphylococcus aureus* (MRSA) bloodstream infection or *Clostridium difficile* were reported to be the underlying cause of, or a contributing factor in, the deaths of approximately 9000 people. The case for change was manifested in a commitment to reduce MRSA bloodstream infection by 50% by 2008. Mandatory reporting and a root cause analyses (RCA) for all MRSA septicaemias were established, and by March 2008 the NHS had achieved a 57% reduction in MRSA bloodstream infections (Office for National Statistics, 2008).

Like HAIs, lower-limb amputation in people with diabetes has been highlighted as being an avoidable and high-cost outcome. The *NHS Atlas of Variation in Healthcare* (Right Care, 2011) revealed significant variations in diabetes-related amputation rates across England and there is patchy uptake of the national guidance that designed to redress this situation.

NHS Diabetes established Diabetic Foot Care Networks across the UK with a vision to reduce variation in care (Vig, 2012). To understand and evidence common causality, a National Root Cause Analysis Tool for major or minor amputations was piloted within this group in December 2012, and will be report on in late March 2013.

RCA has been widely used by the National Patient Safety Agency (now been taken over by the NHS Commissioning Board Special Health Authority; www.npsa.nhs.uk). RCAs traditionally several elements:

- Gathering and mapping information
- Identifying care and service delivery problems
- Analysing to identify contributory factors and root causes
- Generating solutions
- Log, audit and learn from investigation reports
- Implementation of lessons learnt
- Empowerment of local champions

For RCA to be used to its best effect and improve outcomes, it is imperative that organisations and individuals are open and able to share data, but in such a way that patients' identities are protected.

It is hoped that the RCA tool developed by Wolverhampton, Ipswich, and Croydon Diabetic Foot Care Networks will highlight specific areas of diabetic foot care that require targeting to ensure a rapid improvement in outcomes. The pilot will also report to NHS Diabetes and it is hoped that the mandatory reporting and investigation of every major and minor amputation in patients with diabetes will be established. ■

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