

Characterising health care-associated bloodstream infections in public hospitals in Queensland, 2008–2012

IN REPLY: We appreciate the comments by Worth and colleagues on our article¹ and agree that bloodstream infection (BSI) surveillance should occur with the goal of informing initiatives to prevent infection.

With regard to positive blood cultures caused by common skin commensals, in 2013, the surveillance definition from the Centre for Healthcare Related Infection Surveillance and Prevention (CHRISP) was updated in line with that of the United States National Healthcare Safety Network (NHSN). The updated CHRISP definition, which required two positive cultures for a common skin commensal if treatment was initiated, was developed to coincide with the newly deployed Multiprac health care-associated infection surveillance system in Queensland public hospitals. Our article acknowledged the impact of the use of the older definition.

Although the CHRISP surveillance definition of neutropenic sepsis is imperfect and includes reference to catheter tip cultures, it was implemented to create a distinction between BSI due to bacterial translocation across the gut in neutropenic patients and central line-associated BSI. The CHRISP definition was developed over a decade before the NHSN developed its classification of the mucosal barrier injury laboratory-confirmed bloodstream infection (MBI-LCBI).² The data collection period reported in our article predates the inclusion of the MBI-LCBI definition into the central line-associated BSI surveillance definition from the Australian Commission on Safety and Quality in Health Care.³ We do not advocate the comparison of specific rates of infection collected with different surveillance systems; however, our surveillance definitions are similar to those currently used in South Australia.⁴

We agree that standard infection control measures cannot prevent BSI caused by chemotherapy-induced neutropenia. Nevertheless, the data presented comparing neutropenic with non-neutropenic patients are of interest, because they demonstrate that the MBI-LCBI definition is potentially applicable in Queensland.

Quality improvement, including efforts to reduce health care-associated BSI rates, should be continuous. Nationally accepted definitions for surveillance³ should be applied where available. However, an

inclusive approach to surveillance may facilitate a broader scope for BSI prevention. For example, efforts could be extended to prevent BSI caused by peripherally inserted venous catheters, indwelling urinary catheters and surgical site infections, which might not be measured by more targeted surveillance systems that exclusively use nationally accepted definitions.

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- 2 See I, Iwamoto M, Allen-Bridson K, et al. Mucosal barrier injury laboratory-confirmed bloodstream infection: results from a field test of a new National Healthcare Safety Network definition. *Infect Control Hosp Epidemiol* 2013; 34: 769–776.
- 3 Australian Commission on Safety and Quality in Health Care. Implementation guide for surveillance of central line associated bloodstream infection. Canberra: Commonwealth of Australia, 2015. <http://www.safetyandquality.gov.au/wp-content/uploads/2016/04/Implementation-Guide-for-Surveillance-of-Central-Line-Associated-Bloodstream-Infection-2016-Edition.pdf> (accessed May 2016).
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