



The lack of antibiotic lock solutions led to an increase in bacteremia rates and higher financial cost for inpatient management of bacteremia. Our findings highlight the importance of consistent supply of pharmaceuticals” Goh et al (2017).

Abstract:

The use of antibiotic lock solutions as prophylaxis for catheter-associated blood stream infection (CRBSI) has been shown to be effective in previous randomized controlled trials. However, the cost-effectiveness of this approach had not been studied. In 2012, the routine gentamicin-heparin lock solution used in Auckland City Hospital was withdrawn from the market, leading to a change to heparin-only lock. This was then replaced with gentamicin-citrate lock in 2014.

ReTweet if useful... Effectiveness of gentamicin lock solutions for dialysis catheters
[@ivteam #ivteam](https://ctt.ec/9625y+)

Click To Tweet

This situation allowed review of the CRBSI rate and financial impact of different catheter lock solutions. A retrospective audit was performed from 1 January 2011 to 31 December 2015 to investigate the rate of culture-proven CRBSI in patients with tunneled cuffed dialysis catheters. There were 89 cases of CRBSI involving 64 patients in the 5-year period. In comparison with the heparin-only lock, both gentamicin-heparin and gentamicin-citrate locks

had a significantly lower rate of bacteremia, with rate ratios of 0.46 (confidence interval 0.30-0.72) and 0.11 (confidence interval 0.05-0.22), respectively. The inpatient costs as a consequence of the CRBSI were NZ\$27 792 per 1000 catheter days for heparin-only lock, NZ\$10 608.56 per 1000 catheter days for gentamicin-heparin lock, and NZ\$ 1898.45 per 1000 catheter days for gentamicin-citrate lock. The lack of antibiotic lock solutions led to an increase in bacteremia rates and higher financial cost for inpatient management of bacteremia. Our findings highlight the importance of consistent supply of pharmaceuticals.

Reference:

Goh, T.L., Wei, J., Semple, D. and Collins, J. (2017) The incidence and costs of bacteremia due to lack of gentamicin lock solutions for dialysis catheters. *Nephrology*. 22(6), p.485-489.

doi: 10.1111/nep.12960.

Thank you to our partners for supporting IVTEAM

