The aim of this study was to assess the efficacy of chlorhexidine solutions and a 5% povidone-iodine solution on the incidence of CVC-related infections in children on HD.” Paglialonga et al (2014).

Reference:


Chlorhexidine intravenous site care of tunneled central venous catheters http://ctt.ec/a0Gpx+ @ivteam #ivteam

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Abstract:

Only a few studies have investigated the optimal exit site management of tunneled central venous catheters (CVCs) in pediatric patients on chronic hemodialysis (HD). The aim of this study was to assess the efficacy of chlorhexidine solutions and a 5% povidone-iodine solution on the incidence of CVC-related infections in children on HD. The incidence of exit-site infection (ESI), tunnel infection (TI), and bloodstream infection (BSI) was assessed in two
groups of tunneled CVCs. The iodopovidone group consisted of 14 CVCs used between 1 January 2011 and 30 June 2012 in 10 children, whose median age at the time of CVC placement was 11.8 years (range 1.2-19.2): 5% povidone-iodine was used for CVC exit-site care. From 1 August 2012 to 31 January 2014, 0.5% chlorhexidine gluconate/70% isopropyl alcohol was used for the exit site, and 2% chlorhexidine gluconate/70% isopropyl alcohol spray for the hub in 13 CVCs was used in 10 patients (chlorhexidine group), whose median age at the time of CVC placement was 10 years (range 1.2-19.2). Ten episodes of ESI were diagnosed in the iodopovidone group (incidence 3.4/1000 CVC days), and only one in the chlorhexidine group (incidence 0.36/1000 CVC days, P = 0.008). One TI was observed in the iodopovidone group (0.34/1000 CVC days), and none in the chlorhexidine group. The incidence of BSIs decreased from 1.7/1000 CVC days (5 cases) to 0.36/1000 CVC days (1 case, P = 0.06) after switching to chlorhexidine. Two CVCs were lost due to CVC-related infections in the iodopovidone group, whereas no CVC was lost due to infections in the chlorhexidine group. In comparison with 5% povidone-iodine, the use of chlorhexidine gluconate was associated with a reduction in the incidence of ESI, TI, and BSI in children on HD.

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