Colonization of connector hubs and contaminated syringes are thought to increase the risk of CR-BSI. The Coated Antiseptic Tip (CAT) syringe was developed to decontaminate connector hubs, thereby reducing the risk of CR-BSI" Mariyaselvam et al (2015).

Reference:

Mariyaselvam, M., Hodges, E., Richardson, J., Steel, A., Moondi, P. and Young, P. (2015) The coated antiseptic tip (CAT) syringe. Journal of Medical Engineering & Technology. May 13th. .

Review of coated antiseptic tip (CAT) syringe http://ctt.ec/tu9Mq+ @ivteam #ivteam

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Abstract:

Catheter-related blood stream infections (CR-BSI) account for 30% of healthcare acquired infection (HAI). Colonization of connector hubs and contaminated syringes are thought to increase the risk of CR-BSI. The Coated Antiseptic Tip (CAT) syringe was developed to decontaminate connector hubs, thereby reducing the risk of CR-BSI. Needleless valves ($n = 20$) and three-way connectors ($n = 20$) were contaminated with common critical care pathogens. At hourly intervals, CAT syringes were inserted into the connector hubs and normal saline was injected through the connector. This was repeated with control (non-coated) syringes. The internal surface of the connector hubs were swabbed at $t = 0$, $t = 1$ h and $t = 4$ h, inoculated onto blood agar plates and analysed by a blinded microbiologist. Growth was counted as the number of colony forming units. Baseline swabbing demonstrated 100% bacterial hub colonization in both connectors. The CAT syringe showed a significant reduction in CFU growth at 0 and 1 h compared with control syringes ($p < 0.05$). At 4 h, the CAT syringe completely eliminated bacterial growth in both of the connector hubs. The CAT syringe can effectively disinfect both three-way and needleless connectors.

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