



In reply: Assessing the need for a chlorhexidine-containing central venous catheter: balancing the risk of anaphylaxis with infection

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To the Editor,

We thank Drs Pysyk and Miller who have identified an additional case of chlorhexidine (CHX) anaphylaxis following central venous catheter placement in a patient undergoing renal transplantation.^{1,2} In their letter, they have clearly identified some of the challenges involved in reducing the potential risk of CHX-induced anaphylaxis, particularly in high-risk patient populations. Patients deemed to be at increased risk are those who have had repeated intermittent exposure to CHX in the context of medical or surgical procedures, leading to allergic sensitization. These include patients undergoing repeated urethral catheterization with CHX-containing gel and patients whose hemodialysis fistulae are disinfected with CHX.

At our institution, we have adopted two approaches to risk reduction. For those patients who have already been repeatedly exposed to CHX, topical CHX exposures and use of CHX-containing devices are avoided during all surgical and medical procedures. Our use of central venous catheters (CVC) in patients undergoing renal allograft surgery previously approached 100%, whereas now, the CVC insertion rate in these patients is approximately 2%. This change in practice was prompted by recognition of potential mechanical, infectious, and in the case of CHX-coated catheters, allergic complications of CVC placement. For those at-risk patients requiring a CVC, CHX-free devices are kept in stock for use if indicated. Thus far,

patients undergoing CHX-free CVC placement have not had any septic or allergic complications.

In those patients who have not been previously exposed to CHX disinfectant but are in high-risk populations, alternative skin disinfectant products (3M antiseptic solution with 10% povidone-iodine, 3M Canada, London, ON, Canada) are now used routinely to reduce the risk of sensitization.

Conflicts of interest None.

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References

1. Pysyk CL, Miller DR. Assessing the need for a chlorhexidine-containing central venous catheter: balancing the risk of anaphylaxis with infection. *Can J Anesth* 2020; DOI: <https://doi.org/10.1007/s12630-020-01598-4>.
2. Ho A, Zaltzman J, Hare GM, et al. Severe and near-fatal anaphylactic reactions triggered by chlorhexidine-coated catheters in patients undergoing renal allograft surgery: a case series. *Can J Anesth* 2019; 66: 1483-8.

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