Double gloving in the OR
By Debra S. Hurst RN, BSN, CIC

Wearing two pairs of sterile gloves during surgical procedures, or “double gloving,” is a practice healthcare professionals use to lessen their risk of exposure to bloodborne pathogens by providing a “back up” layer of protection when glove integrity becomes compromised during an invasive procedure. It’s reported that glove barrier failure is as common as 61% for thoracic surgeons and 40% for scrub personnel. Several groups including the Association of periOperative Registered Nurses (AORN), American College of Surgeons, and American Academy of Orthopedic Surgeons, recommend this evidence-based practice during invasive procedures.

Punctures in gloves often occur without the healthcare worker’s (HCW’s) knowledge. It’s not uncommon for HCWs to report that glove integrity breaches were only known once the single gloves were removed and the patient’s blood was seen on their skin. Through a variety of research studies, double gloving has been shown to be an effective method to reduce the potential for contact with bodily fluids during invasive surgical procedures. One study showed that surgeons who only used single gloves had a 51% rate of bloodborne pathogen exposure versus a 7% rate when double gloving was practiced.

Compliance with the recommendation for double gloving has been influenced by the manual dexterity and potential for decreased sensation noted by those using this technique. Although lack of support for double gloving has been voiced by some practitioners for these reasons, it has been suggested that a trial of 2 to 120 days may be needed before the practitioner is comfortable with the new technique.

Recommendations
According to one study, HCWs should practice double gloving during invasive procedures. This is based upon a systematic review of 18 clinical trials involving gloving practices in which double gloving clearly demonstrated a benefit to the HCWs in decreasing the risk of exposure to a patient’s blood during invasive procedures.

Highlights from the AORN standards
AORN’s 2008 Perioperative Standards, Recommended Practices and Guidelines addresses the issue of double gloving with the following points:

- Perforation rates of the glove closest to the skin are significantly less when wearing a double layer of gloves compared with a single layer of gloves.
• Perforation rates are similar when wearing a single layer of gloves compared with the outer glove when two pairs of gloves are worn.
• Wearing a colored inner glove and adding a second glove of a different color over it will promote earlier recognition if an integrity breach occurs on the outer pair of gloves.
• Wearing two layers of gloves of the same color won’t help a provider recognize breaches to the glove closest to the skin.
• A glove liner worn between two layers of gloves reduces perforations to the inner glove during orthopedic surgical procedures.
• Wearing a single pair of orthopedic gloves (for example, thicker latex gloves) provides the same protection from perforations as two pairs of standard latex gloves.
• Steel weave outer gloves worn during orthopedic surgery won’t reduce the number of perforations to the inner gloves when compared with double gloving.

REFERENCES

Debra S. Hurst is an infection prevention and control consultant at the Rogue Valley Medical Center, Medford, Ore.