Recommendation IV

Health care practitioners should double-glove during invasive procedures.

1. Health care practitioners should wear two pairs of gloves, one over the other, during invasive procedures. A systematic review of 18 clinical trials of gloving practices clearly demonstrates that double-gloving minimizes the risk of exposure of health care workers to blood during invasive procedures. Meta-analyses of nine of these studies demonstrate the following.

- Perforation rates of the glove closest to the skin are significantly less when wearing double gloves compared to single gloves ($P<0.00001$).
- Perforation rates are no different when wearing single gloves compared to the outer glove when two pairs of gloves are worn ($P=0.3$).
- More glove perforations are detected when using a colored under-glove indicator system when compared to two pairs of standard latex gloves ($P=0.002$).\(^\text{17}\)

This systematic review also included clinical trials addressing other aspects of gloving practices. These studies found the following.

- Wearing two pairs of gloves (ie, double-gloving) significantly reduces the number of perforations to the innermost glove, when compared to the outer glove or single gloves.\(^\text{17}\)
- Wearing two pairs of gloves does not increase the likelihood of increased perforations to the outermost glove.\(^\text{17}\)
- Wearing one pair of standard thickness gloves on top of a pair of standard thickness colored gloves facilitates the wearer’s rapid recognition of perforations to the outer glove.\(^\text{17}\)
- Wearing a single pair of orthopedic gloves (ie, thicker latex gloves) provides the same protection from perforations as does two pairs of standard latex gloves.\(^\text{18}\)
- Wearing two layers of colored gloves does not assist in recognizing breaches to the glove closest to the wearer’s skin.\(^\text{19-21}\)
- Wearing a glove liner between two layers of gloves does reduce perforations to the innermost glove during orthopedic surgical procedures.\(^\text{22,23}\)
- Wearing cloth outer gloves during orthopedic surgical procedures does decrease the number of perforations to the innermost glove when compared to double-glove layers.\(^\text{24,25}\)
- Wearing steel weave outer gloves during orthopedic surgery does not reduce the number of perforations to the innermost gloves when compared to double gloves.\(^\text{26}\)

The Centers for Disease Control and Prevention (CDC), the American College of Surgeons, and the American Academy of Orthopedic Surgeons, support double-gloving during invasive procedures.\(^\text{27-29}\)

2. Upon completion of the invasive procedure, both pairs of gloves should be discarded and hand hygiene should be performed.\(^\text{3}\)

Recommendation V

Contact precautions should be used when providing care for patients who are known or suspected to be infected or colonized with microorganisms that are transmitted by direct or indirect contact with patients or items and surfaces in patients’ environments (eg, herpes simplex, impetigo, infectious