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# **ISSUE 1: IN-SERVICE BRIEF** Double-Gloving

## **CURRENT EVIDENCE RELATED TO DOUBLE-GLOVING**

Consider the current evidence, practice trends, and directives about glove integrity and double gloving:

- Unresolved level of non-compliance of healthcare workers (HCWs) in using personal protective equipment (PPE).<sup>1</sup>
- Research confirming that when a glove breach occurs, a potential bi-directional transfer of pathogens can occur between the HCW and anything or anyone they touch.<sup>2</sup>
- Early studies on double gloving have shown to protect the surgeon's hands by the inner glove in 82% of the cases.<sup>3</sup>
- \* 2014 Cochrane Review reported a reduction of the number of perforations by 71% with two pairs of gloves versus one pair.<sup>4</sup>
- Surgical team members wearing two pairs of gloves reduced their risk of exposure and contracting a serious viral infection.<sup>4</sup>
- There is no negative impact on tactility with the use of double gloves.<sup>5, 6</sup>



## RECOMMENDATIONS AND REQUIREMENTS FOR DOUBLE-GLOVING

Guideline recommendations can conflict with research published due to the prolonged time between study completion and publication:

- This can create a delay in HCWs adopting best practices.
- Clinicians must therefore be current with and understand evolving research as well as product innovation.

# **DOUBLE-GLOVING DECISION MAKING**

#### Considerations for double gloving compliance:

- Surgical glove attributes important to HCWs includes comfort, dexterity, ease of donning, fit and feel, flexibility, slippery, and tear resistance.<sup>1</sup>
- Glove user must respect the risks present by not double gloving.
- HCWs should take part in discussions with infection control teams and ensure the current policies and procedures consider the requirements for the organization as well as the HCWs.
- Standardization of gloving practice is ideal.

#### References

- 1. Ganczak M, Szych Z. Surgical nurses and compliance with personal protective equipment. J Hosp Infect. 2007;66(4):346-351.
- 2. Tanner, J. Choosing the right surgical glove: an overview and update. Br J Nurs. 2008;17(12):740-744.
- 3. Thomas S, Agrwal M, Mehta G. Intraoperative glove perforation—single versus double-gloving in protection against skin contamination. Postgrad Med J. 2001;77(909):458-460.
- 4. Mischke C, Verbeek JH, Saarto A, Lavoie MC, Pahwa M, Ijaz S. Gloves, extra gloves or special types of gloves for preventing percutaneous exposure injuries in healthcare personnel. Cochrane Database Syst Rev. 2014;2014(3):CD009573. Published 2014 Mar 7.
- 5. Hollaus PH, Lax F, Janakiev D, Wurnig PN, Pridun NS. Glove perforation rate in open lung surgery. Eur J Cardiothorac Surg. 1999;15(4):461-464.
- 6. Quebbeman EJ, Telford GL, Wadsworth K, Hubbard S, Goodman H, Gottlieb MS. Double gloving. Protecting surgeons from blood contamination in the OR. Archives of surgery. 1992;127(2):213-217.
- 7. Korniewicz D, El-Masri M. Exploring the Benefits of Double Gloving During Surgery. AORN Journal. 2012;95(3):328-336
- Childs T. Use of double-gloving to reduce surgical personnel's risk of exposure to bloodborne pathogens: an integrative review. AORN J. Dec 2013;98(6):585-596.e6.

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# THE TWO-COLOR GLOVE SYSTEM AND POINTS FOR PRACTICE

The two-colored indicator system uses a pair of darker-colored inner gloves which act as an indicator of a breach occuring to the outer glove.<sup>4</sup>

- Moisture leaks through the breach in the outer glove allowing for easier visualization of the location of the perforation.
- The wearer is alerted sooner to the need for an immediate glove change.
- The incidence of glove change is higher in individuals who double-glove.<sup>7</sup>

### **PRACTICE RECOMMENDATIONS**

Maximise infection prevention practice to ensure patient and healthcare worker safety:<sup>8</sup>

- Routinely check for glove perforations.
- Double gloving should be common practice in all major cases.
- When you notice a perforation of the outer glove, change both layers of gloves.
- Experiment to find the right sizes and doublegloving combinations.
- Perform routine audits in monitoring compliance with PPE and glove recommendations.
- Review policies, protocols, and procedures to keep pace with the evolving evidence and technology.



