

Surgical Glove Conservation Strategies

Mölnlycke recognizes and supports the need for personal protective equipment (PPE) for all clinicians and healthcare workers. However, with flu season approaching, COVID-19 related illnesses increasing and continued supply limitations, it is important to understand your facility's current glove inventory, supply chain and utilization rate to determine the best **glove conservation** options for your facility.¹ The following are suggested conservation strategies; these are not intended to replace current healthcare organization and facility policies, but rather to augment or enhance them. The decision to follow these remains solely with the treating health care professional.

Sterile surgical gloves should not be confused with standard medical gloves or patient examination gloves (manufactured as either sterile exam or non-sterile exam gloves). Sterile surgical gloves have specific characteristics such as thickness, elasticity and strength, and are manufactured to a much higher set of quality standards as required by the FDA.²

For facilities that have their conventional supply of gloves and have not altered routine care practices, Emergency Care Research Institute (ECRI) recommends two very important strategies that frontline healthcare workers (HCW)s should follow:³

Use FDA-cleared disposable, non-sterile patient exam gloves for routine patient care of suspected or confirmed COVID-19 patients.

Reserve the use of sterile gloves for sterile procedures.

The following strategies should be considered when applying sterile surgical glove conservation:

When and how to wear sterile surgical gloves

1. Utilization – Use sterile surgical gloves for sterile surgical procedures/interventions including:

- a. Surgical procedures performed in the Operating Room, Labor and Delivery suite and Cath Labs
- b. Sterile wound care dressing management; for CVL/PICC dressing changes, the wound dressing should normally be removed with exam gloves, followed by glove removal, handwashing and donning of sterile surgical or sterile exam gloves for the new dressing application as appropriate.

2. Standardize – All facilities should maintain their OR standards etc. with a standardized surgical glove formulary that ensures clinicians will wear the right glove for the right procedure. However, substitutions may be required based on product availability.

3. Minimize open boxes – Only the number of glove packages needed should be opened on sterile back tables.

4. Double-gloving – To minimize sharps injuries, double-gloving is recommended for all surgical procedures.⁴ Although AORN recommends double-gloving with a colored indicator glove, in times of surgical glove shortages clinicians will still be better protected wearing two translucent gloves compared to wearing only one pair.

5. Expiration dates – Before discarding any expired sterile surgical gloves contact the manufacturing company to ascertain if there is an acceptable shelf-life extension.

6. Academic Centers – Enforce sterile glove conservation by educating all the staff and clinicians, including residents and medical students. Strictly prohibit removing sterile surgical gloves from the surgical areas.

7. Sterile protection – For facilities specializing in certain procedures, i.e. radiation, chemo, etc., circulating nurses may choose to don a sterile glove, then cover with an exam glove as their outer glove. Any changes then would be to the outer exam glove leaving the sterile inner glove intact.

8. Latex vs non-latex – Those facilities that have not eliminated natural rubber latex gloves from their environment, should consider using more sterile surgical latex gloves. AORN recommends a low protein latex glove if used.⁵ However, providing non-latex (synthetic) gloves for those allergic to latex should be continued.

When to wear exam and sterile exam gloves

1. Cleaning – Use exam gloves when cleaning OR/ L&D/Cath Lab /ER, etc. suites.

- a. Note: For instrument reprocessing, workers need gloves known as utility gloves – extra thick and leak-proof – that extend above impervious gowns thus providing a watertight seal.⁶

2. Kit gloves – If the foley kits and/or skin prep kits used at the facility have gloves inside the kit, instruct staff to wear them and not discard for a sterile surgical glove.

3. Use exam or (if indicated) sterile exam gloves for:

- a. Standard venipuncture procedures that include IV insertion/removal, drawing blood, etc. (i.e. no sharp instruments)
- b. Simple wound care dressings are considered aseptic procedures, not sterile. This is the standard for both old dressing removal and new dressing application.^{7,8}
- c. Pelvic and vaginal examinations and suctioning endotracheal tubes.⁹

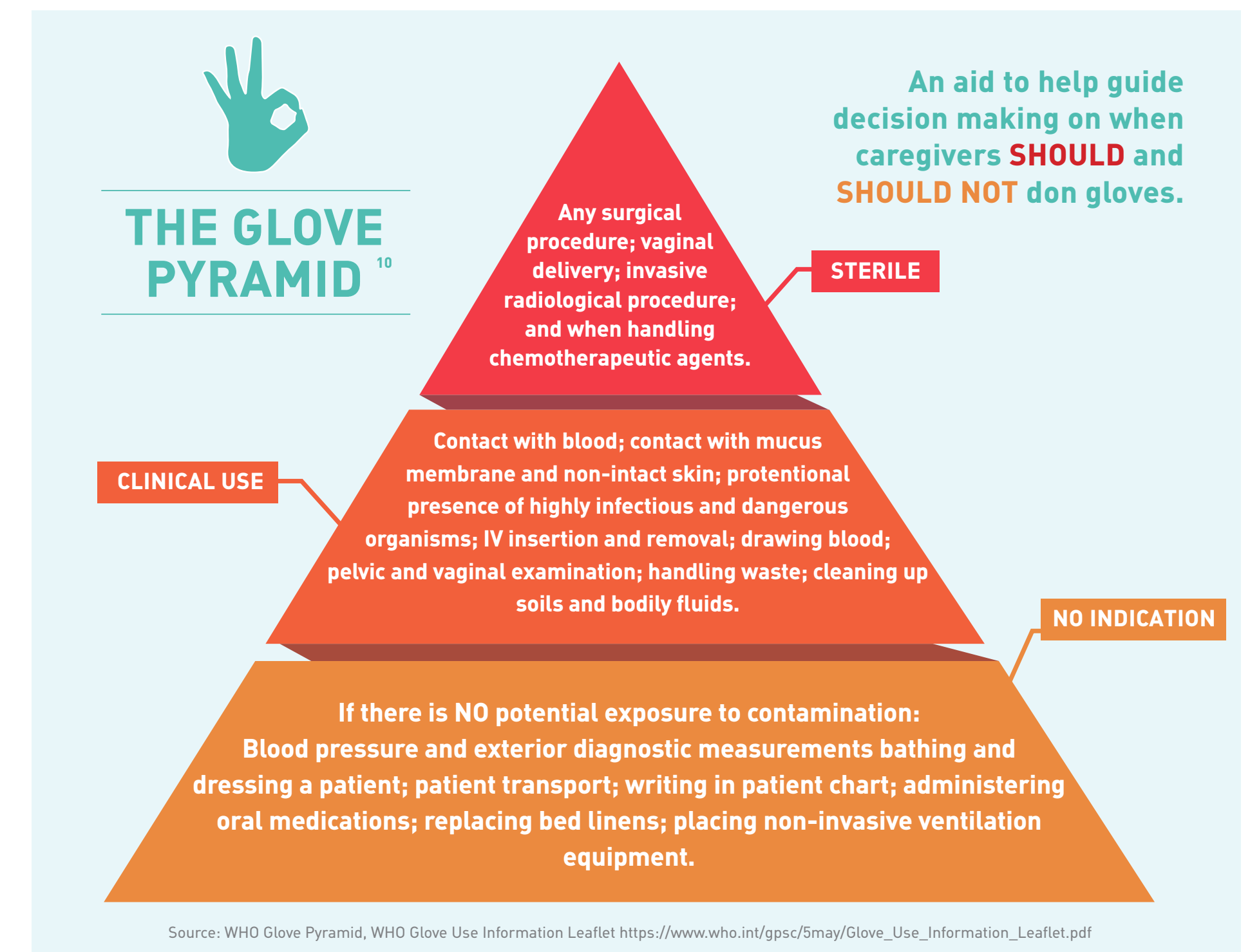
4. Use exam gloves:

- a. For sponge counts, specimen removal, etc. in the OR, sterile gloves are normally not needed in these instances unless otherwise indicated, however, special circumstances may sometimes require sterile gloves to be used.
- b. If indicated when touching inanimate objects such as the telephone, computer, etc.

SUMMARY

It is important to wear gloves as part of PPE when the wearer will be in contact with infectious materials, chemicals and blood/body fluids. However, sterile surgical gloves may not be needed in many instances. Use sterile surgical gloves in the surgical arena for sterile procedures only, or when there is a specific need for such use. Donning and doffing of either surgical or exam gloves should be carried out in an appropriate manner to avoid pathogen transmission, followed by performing hand hygiene. The World Health Organization (WHO) glove pyramid offers a quick guide to appropriate glove usage. The recommendations for sterile surgical glove conservation listed above should be balanced with the needs and directions of the facility/organization and the patient.

References: 1. McKesson, Glove Conservation strategies during Covid-19, accessed 08 30 2021 2. Fda.gov.Medical Glove Guidance Manual, January 2008. Accessed 09 21 3. ECRI, www.ecri.org. Printed from Health Devices alerts, Tuesday 4/21/20, accessed 08 30 21 4. AORN Recommended Guidelines, Sharps Safety, recommendation IV 2019 p 881 5. AORN Recommended Guidelines, Environment of Care, recommendation XI 2019 p 156 6. https://www.hpnonline.com/sterile-processing/article/13000742/ppe-for-spd 7. https://www.molnlycke.com/education/wound-areas/wound-healing/how-to-look-after-your-wound/ 8. https://pubmed.ncbi.nlm.nih.gov/29528884/ Dea, K. et al. Does the Use of Clean or Sterile Dressing Technique Affect the Incidence of Wound Infection? 2018 accessed 09 21 9. WHO Glove Use Information Leaflet https://www.who.int/gpsc/5may/Glove_Use_Information_Leaflet.pdf. Accessed 08 21 10. WHO Glove Pyramid. Accessed 08 21



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