

THE FIRST GLOBAL PATIENT SAFETY CHALLENGE

Clean Care is Safer Care

GLOVE USE (technical)

Evidence and different considerations on glove use

It is widely recommended that health-care workers (HCWs) wear gloves for two main reasons: (i) to prevent microorganisms which may be infecting, commensally carried, or transiently present on HCWs' hands from being transmitted to patients and from one patient to another; (ii) to reduce the risk of HCWs themselves acquiring infections from patients.

The effectiveness of gloves in preventing contamination of HCWs' hands and helping to reduce transmission of pathogens has been confirmed in several clinical studies.

Nevertheless HCWs should be informed that gloves do not provide complete protection against hand contamination. Bacterial flora colonizing patients may be recovered from the hands of up to 30% of HCWs who wear gloves during patient contact. In such instances, pathogens presumably gain access to the caregivers' hands via small defects in gloves or by contamination of the hands during glove removal.

The impact of wearing gloves on adherence to hand hygiene policies has not been definitively established, since published studies have yielded contradictory results. Several studies found that HCWs who wore gloves were less likely to cleanse their hands upon leaving a patient's room. In contrast, other studies proved the direct opposite. The recommendation to wear gloves during an entire episode of care of a patient undergoing isolation precautions could actually lead to HCWs missing opportunities for hand hygiene.

Use of gloves

Gloves should be worn during all patient-care activities that may involve exposure to blood or body fluids contaminated with blood. In addition, gloves should be worn in activities that include contact with potentially infectious material other than blood, such as mucous membranes, and non-intact skin or during outbreak situations, as recommended by specific requirements for Personal Protective Equipment (PPE).

The unnecessary use of gloves in situations when their use is not recommended represents a waste of resources without necessarily leading to a reduction of cross-transmission and may also result in missed opportunities for hand hygiene.

It is important that HCWs are able to correctly select the most appropriate type of gloves to be worn and to differentiate between specific clinical situations when gloves should be worn and changed and those where their use is not recommended (see pyramid overleaf).

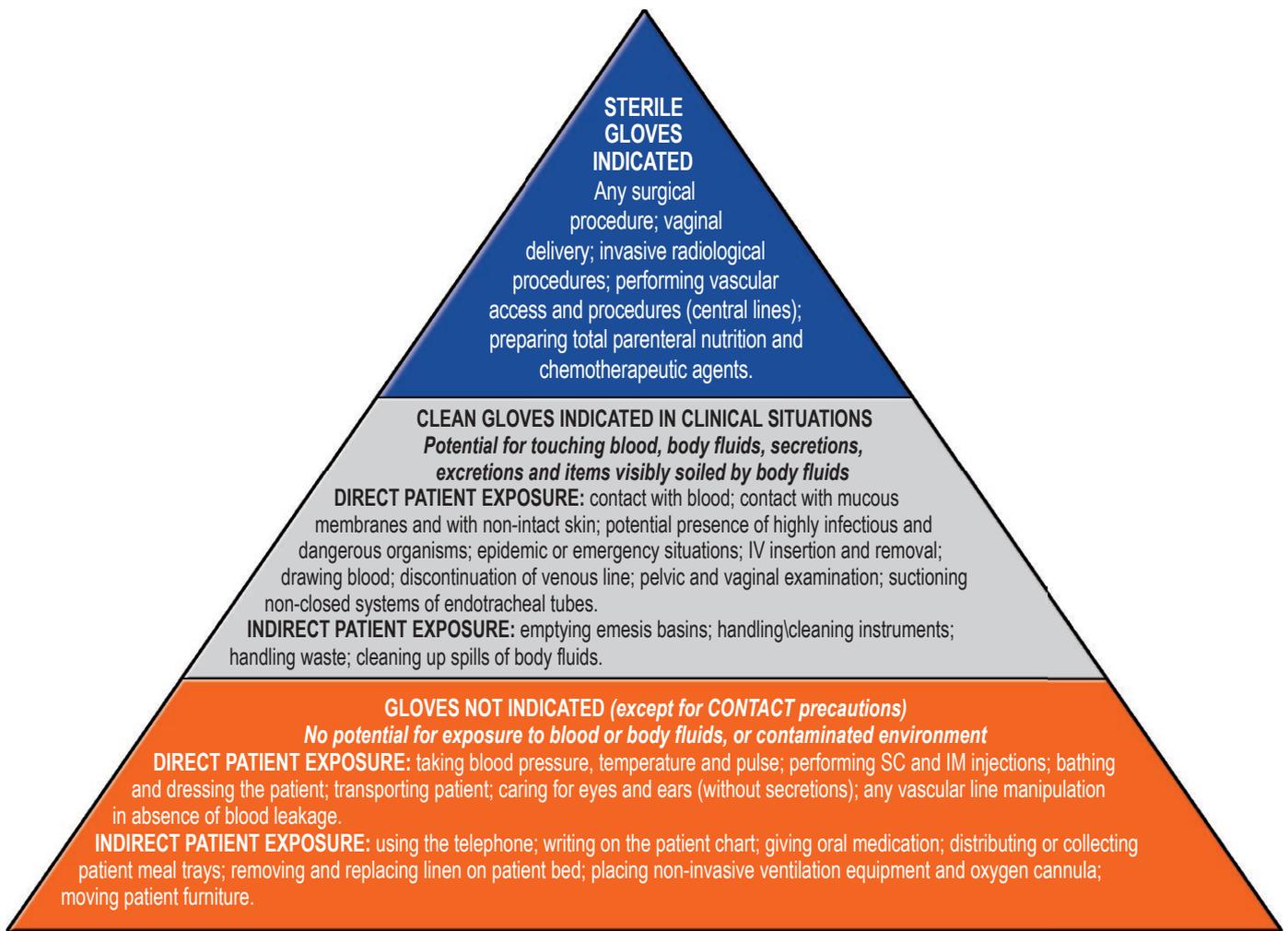
Glove reprocessing must be strongly discouraged and should be avoided, even if it is common practice in many health-care settings in developing countries where glove supply is limited. At present no standardized, validated and affordable procedure for safe glove reprocessing exists. Every possible effort should be made to prevent the occurrence of glove reuse in health-care settings. This includes educational activities to reinforce the need to reduce inappropriate glove use, purchasing good quality disposable gloves and replenishing stocks in time. Further research is needed to identify a standardized glove reprocessing procedure, to evaluate the integrity of different glove material when exposed to different products used for hand antisepsis or handwashing (e.g. alcohol, chlorhexidine, or iodine solutions) and to develop a valid evaluation process for settings practicing or planning the reprocessing of gloves, in order to minimize this practice.

Key messages for glove use:

- Gloves are effective in preventing contamination of HCWs' hands and helping reduce transmission of pathogens.
- Gloves do not provide complete protection against hand contamination.
- HCWs should be reminded that failure to remove gloves may contribute to the transmission of organisms.
- If the integrity of a glove is compromised (e.g., punctured), it should be changed as soon as possible.
- HCWs should be trained in planning the sequence of procedures in a rational manner which limits the use of gloves and to use non-touch techniques as much as possible during care. The emphasis should be on minimizing the need for glove use and change.
- In some published studies, vinyl gloves more frequently had defects than did latex gloves, the difference being greatest after use.
- It is appropriate to have more than one type of glove available.
- Use of petroleum-based hand lotions or creams may adversely affect the integrity of latex gloves and some alcohol-based handrubs may interact with residual powder on HCWs' hands.
- The unnecessary use of gloves in situations where their use is not appropriate should be avoided.

Recommendations on glove use:

1. The use of gloves does not replace the need for hand cleansing by either handrubbing or handwashing.
2. Wear gloves when it can be reasonably anticipated that contact with blood or other potentially infectious materials, mucous membranes, or non-intact skin will occur.
3. Remove gloves after caring for a patient. Do not wear the same pair of gloves for the care of more than one patient.
4. When wearing gloves, change or remove gloves in the following situations: during patient care if moving from a contaminated body site to a clean body site within the same patient; after touching a patient; after touching a contaminated site and before touching a clean site or the environment.
5. Avoid the reuse of gloves. If gloves are reused, an adequate and validated reprocessing method needs to be developed to ensure glove integrity and microbiological decontamination.
6. Double gloving in countries with a high prevalence of HBV, HCV and HIV for long surgical procedures (>30 minutes), for procedures with contact with large amounts of blood or body fluids, for some high-risk orthopedic procedures, is considered an appropriate practice.



Gloves must be worn according to STANDARD and CONTACT PRECAUTIONS. The pyramid details some clinical examples in which gloves are not indicated, and others in which clean or sterile gloves are indicated. Hand hygiene should be performed when appropriate regardless of these indications for glove use.

This is Information sheet 6 in a series of 7 related to the Clean Care is Safer Care Challenge
The leaflets are based on the WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft)
For further information about Clean Care is Safer Care, please contact the Secretariat of the World Alliance for Patient Safety,
e-mail: patientsafety@who.int or for a full list of tools visit: www.who.int/gpsc/en/index.html

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