Takeaway

Blunt suture needles should be used unless clinically contraindicated.

- Blunt suture needles decrease the occurrence of glove perforations, percutaneous injuries, and exposure risks to blood and body fluids by reducing the number of needlestick injuries.
- A Cochrane review of 10 randomized controlled trials that evaluated use of blunt versus sharp needles for preventing percutaneous exposure incidents in surgical staff members found that using blunt needles reduced glove perforation risk by 54% and reduced the risk for infectious disease transmission.
- Blunt suture needles are a type of a safety-engineered device with a built-in safety feature that reduces the risk of a bloodborne pathogen exposure.

Recommendation II.a.

Safety scalpels should be used when clinically feasible.

- Scalpel injuries are the second most common injury in the perioperative setting, comprising 17% of injuries.
- Scalpel injuries pose a risk of injury to the skin and underlying tissue and a bloodborne pathogen exposure risk.
- Scalpel injuries occur to the surgeon or assistant, the original user of the device, as well as to the nurses and surgical technologists when scalpels are passed or blades are removed.
- Safety scalpels are a type of a safety-engineered device with a built-in safety mechanism that reduces the risk of a bloodborne pathogen exposure.

Recommendation II.b.

Surgical team members should use a neutral zone or hands-free technique for passing sharp instruments, blades, and needles.

- Analysis of percutaneous injury surveillance data from 87 hospitals in the United States during a 13-year period showed that most sharps injuries occur when suture needles or sharps are passed between perioperative team members.
- Creation of a neutral zone (ie, where instruments are put down and picked up rather than passed hand to hand) may decrease injuries from sharp instruments.
- Use of a neutral zone should include:
  - identifying the neutral zone in the preoperative briefing;
  - using a basin, instrument mat, magnetic pad, or designated area on the Mayo stand as the neutral zone;
  - giving verbal notification when a sharp is in the neutral zone;
  - placing one sharp at a time in the neutral zone;
  - orienting the sharp for easy retrieval by the surgeon;
  - handling of a sharp item by only one team member at a time; and
  - placing sharp items in the neutral zone after use.

Recommendation III.b.
Takeaway

- Wearing two pairs of gloves reduces the risk of glove perforation and percutaneous injury.
- Double gloving minimizes bloodborne pathogen exposure. Studies have demonstrated that double gloving reduces contact with blood by a factor of 5.8 to 10.
- Perforations are detected more frequently and reliably with a perforation indicator glove system (ie, a colored pair of gloves worn beneath a standard pair of gloves). **Recommendation IV.b.1.**
- The use of personal protective equipment (eg, wearing gloves) is required by the Occupational Safety and Health Administration when there is a risk of occupational exposure to blood, body fluids, or other potentially infectious materials. **Recommendation IV.**

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**Key Takeaways**

- Scrubbed team members should wear two pairs of surgical gloves, one over the other, during surgical and other invasive procedures that have the potential for exposure to blood, body fluids, or other potentially infectious materials.
- Safe handling of contaminated sharps protects the original user and environmental services, laundry, sterile processing, and waste disposal personnel.
- Sharps disposal injuries have been attributed to inappropriate sharps containment practices by the user, inadequate sharps disposal container design, inappropriate sharps container placement, and over-filling of sharps disposal containers.

Sharps/needle counter devices protect scrubbed personnel during procedures by segregating sharps in one location until disposal at the end of the procedure. **Recommendation V.**

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All sharps must be handled and disposed of safely.