

NICA NOTES:

KEY POINTS FOR PREPARATION AND ADMINISTRATION

Preparation of parenteral medications must be performed with strict *aseptic technique* to minimize the potential for contamination through contact with nonsterile surfaces, introduction of particulate matter, or biological fluids.

- ✓ Perform hand hygiene and disinfect work surface prior to beginning preparation process.
- ✓ All supplies must be sterile and used for a single patient only.
- ✓ Be aware of **critical sites** – surfaces or openings that can provide a pathway for contamination of an otherwise sterile environment/product.
 - Rubber vial stoppers
 - Needle tip, shaft, hub
 - Syringe tip and plunger shaft/ribs
 - Tubing connections, dispensing devices, and spikes
 - Injection ports and tubing port of IV bags
- ✓ **One alcohol swab may be used to disinfect one critical site.** Contact with any secondary surface constitutes contamination.
- ✓ Plastic flip-top caps on medication vials do not provide sterility; **the rubber stopper must be disinfected prior to puncturing.**
- ✓ Simply wetting a surface with an alcohol swab will not kill pathogens. **Use friction to scrub the surface and allow to completely air dry.**
- ✓ If the sterility of a product is compromised or questioned at any point in the preparation process, the product must be considered contaminated and discarded.

Did You Know?

Improper handling during storage and preparation can increase the risk of infusion reactions and/or alter treatment efficacy by altering the fragile protein structure of monoclonal antibodies. It helps to think of them like another familiar protein-- eggs.

- **Never shake vials** or admixture solutions; gently invert vials and infusion bags to homogenize contents. This could result in a scrambled egg!
- **Withdraw and inject slowly** when transferring medication via syringe to avoid creating turbulence or foaming. Letting the bubbles dissipate will not reverse the damage, just like an egg cannot be un-scrambled.
- **Do not expose medications to heat.** The structural changes that occur from heating a protein are not reversed by cooling it back down, just as an egg cannot be un-fried by popping it in the fridge!