1 Use sterile injection equipment

- Use a sterile syringe and needle for each injection and to reconstitute each unit of medication. [[***]]

- Ideally, use new, quality-controlled disposable syringe and needle. [[***]]

- Inspect packaging for breaches in barrier integrity. Discard a needle or syringe if the package has been punctured, torn, or damaged by exposure to moisture. [[*]]

- If single-use syringes and needles are unavailable, use equipment designed for steam sterilization. Sterilize equipment according to WHO recommendations and document the quality of the sterilization process using Time, Steam, Temperature (TST) spot indicators. [[***]]

2 Prevent contamination of injection equipment and medication

- Prepare each injection in a clean designated area where blood or body fluid contamination is unlikely. [[**]]

- Use single-dose vials rather than multi-dose vials. [[**]]

- If multi-dose vials must be used, always pierce the septum with a sterile needle. [[***]] Avoid leaving a needle in place in the stopper of the vial. [[**]]

- Select pop-open ampoules rather than ampoules that require use of a metal file to open. [[**]]

- If using an ampoule that requires a metal file to open, protect fingers with a clean barrier (e.g., small gauze pad) when opening the ampoule. [[**]]

3 Prevent needlestick injuries to the provider

- Inspect for and discard medications with visible contamination or breaches of integrity (e.g., cracks, leaks). [[*]]

- Follow product-specific recommendations for use, storage, and handling. [[*]]

- Discard a needle that has touched any non sterile surface. [[*]]

- Anticipate and take measures to prevent sudden patient movement during and after injection. [[***]]

- Avoid recapping and other hand manipulations of needles. If recapping is necessary, use a single-handed scoop technique. [[***]]
Other practice issues

1. **Engineered technology**: Whenever possible, use devices designed to prevent needlestick injury that have been shown to be effective for patients and providers. Auto-disable (AD) syringes are increasingly available to prevent reuse of injection equipment in selected settings, including immunization services.

2. **Provider’s hand hygiene and skin integrity.** Perform hand hygiene (i.e., wash or disinfect hands) prior to preparing injection material and giving injections. The need for hand hygiene between each injection will vary based on the setting and whether there was contact with soil, blood or body fluids. Avoid giving injections if skin integrity is compromised by local infection or other skin condition (e.g., weeping dermatitis, skin lesions, cuts). Cover any small cuts.

3. **Gloves.** Gloves are not needed for injections. Single use gloves may be indicated if excessive bleeding is anticipated.

4. **Swabbing of vial tops or ampoules.** Swabbing of vial tops or ampoules with an antiseptic or disinfectant is unnecessary. If swabbing with an antiseptic is selected for use, use a clean, single use swab and maintain product specific recommended contact time. Do not use cotton balls stored wet in a multi-use container.

5. **Skin preparation prior to injection.** Wash skin that is visibly soiled or dirty. Swabbing of the clean skin prior to giving an injection is unnecessary. If swabbing with an antiseptic is selected for use, use a clean, single use swab and maintain product specific recommended contact time. Do not use cotton balls stored wet in a multi-use container.

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**Best Infection Control Practices for Skin-Piercing Intradermal, Subcutaneous, and Intramuscular Needle Injections**

Eliminating unnecessary injections is the highest priority towards preventing injection-associated infections. When injections are medically indicated they should be administered safely. These best practices are measures that have been determined through scientific evidence or expert consensus to effectively protect patients, providers and communities.

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