**Injection Administration and Safety Including Multi-Dose Vials**

**Date Implemented:**

**Review/Updated Date:**

**Policy**

Injectable medications increase the risk for bloodborne pathogen transmission generally through accidental needlestick injuries. The CDC and OSHA provide strict guidelines for injection safety to assure that bloodborne pathogen transmission is minimized to assure resident and employee safety.

All injectable medications must be prepared and administered in accordance with safe injection practices including but not limited to:

* Use of aseptic technique to assure injections are prepared and administered in locations that are free from potential sources of contamination including blood, body fluids and contaminated equipment.
* Needles and syringes are used for only one resident, including prefilled syringes and cartridge devices such as insulin pens.
* Medication vials are entered with a new needle and a new syringe, even when obtaining additional doses for the same resident.
* Single dose medication vials are only used for one resident.
* Multi-dose vials to be used for more than one resident are kept in a centralized medication area and do not enter the immediate resident care area. If multi-dose vials enter a resident care area they should be discarded immediately after use.

**Procedures**

**Preparation of Injection:**

* Injectable medications must be prepared in a clean area with aseptic technique, including away from sinks to prevent potential water bacteria contamination.
* Injectable medication should be prepared immediately prior to administration of the medication.
* Gather supplies required to prepare the injectable medication including the medication vial, sterile needles and syringes, alcohol prep pads and barriers if necessary.
* Complete hand hygiene prior to the procedure.
* Review medication to be injected according to the rights of medication administration.
* If a single-dose vial or a new multi-dose, the nurse will remove the protective cap on the vial.
* Assemble the sterile syringe and the sterile needle. This should not be stored on a dirty surface once assembled. Pull back on the barrel of the syringe to place air into the syringe in the amount of medication that will be removed from the vial.
* Cleanse the septum of the vial with an alcohol prep pad.
* Insert the needle into the vial septum and inject the air into the vial.
* Inverting the vial and syringe together remove the amount of medication per the physician’s order.
* Remove the needle from the septum of the vial and discard the vial or store appropriately if a multi-dose vial. (See guidelines for storage of multi-dose vials) To prevent accidental needle sticks nurses should follow appropriate steps for recapping needles following drawing up of the medication. Used needles should never be recapped.
* To administer the medication to the resident, the nurse should assure hand hygiene is completed and gloves are donned and then select the appropriate site of administration based on medication recommendations (such as intramuscular). Cleanse the location with an alcohol prep pad and administer the medication.
* Discard the used needle in the appropriate biohazard sharps container.

**Insulin Pens**

Insulin pens (or prefilled pens) should never be used for multiple residents. Pens should be marked individually with the resident’s name to assure that they are not used for multiple residents.

Insulin pens should be stored appropriately to assure that pens for one resident is not touching a pen of another resident. This may be completed by placing in separate storage bins, storage bags or other methods identified by individual facilities.

Procedure for administration of an insulin pen:

* Assure appropriate medication administration per the rights of medication administration.
* Locate resident and gather necessary equipment including the insulin pen(s), pen needles and alcohol prep pads.
* The insulin pen should be observed for date open. Whenever a pen is first opened it must be dated with the open date. Once opened or left outside of a refrigerator, insulin pens are only viable for a period of 28-30 days depending on the type of insulin. If the open date exceeds the viable date, it should be discarded, and a new pen obtained.
* Cleanse the septum of the insulin pen with an alcohol prep pad. Remove the paper cover from the pen needle, and assemble the pen needle to the insulin pen.
* Locate the area for injection (subcutaneous) and cleanse the area with an alcohol prep pad. Assure that the residents clothing does not contaminate the area following cleansing.
* Dial the insulin pen to the appropriate location to prime the insulin pen (depending on the pen this may be a special line, or the manufacturer may direct to prime to a specific number of units).
* Remove protective coverings from the pen needle and prime the insulin pen. Dial the insulin pen to the prescribed units and inject into the resident. Hold the pen injector in for an amount of time directed by the manufacturer (typically 3-5 seconds following injection).
* Upon completion of administration, discard the needle into the appropriate biohazard container. Complete hand hygiene and document administration.

**Resources**

CMS. (2017, Nov. 2). *State Operations Manual, Appendix PP – Guidance to Surveyors for Long Term Care Facilities, F880*. <https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/GuidanceforLawsAndRegulations/Downloads/Appendix-PP-State-Operations-Manual.pdf>

CDC. (2020, June 10). *Infection Prevention Training | LTCF*. <https://www.cdc.gov/longtermcare/training.html>