Vaccine Preparation

Vaccine Preparation - Proper vaccine handling and preparation is critical in maintaining the integrity of the vaccine during transfer from the manufacturer's vial to the syringe and ultimately to the patient.

• **Equipment Selection**

- **Syringe Selection** - A separate needle and syringe should be used for each injection. A parenteral vaccine may be delivered in either a 1-mL or 3-mL syringe as long as the prescribed dosage is delivered. Syringe devices with sharps engineered sharps injury protection are avail able, recommended by OSHA, and required in many states to reduce the incidence of needle stick injuries and potential disease transmission. Personnel should be involved in evaluation and selection of these products. Staff should receive training with these devices before using them in the clinical area.

- **Needle Selection** - Vaccine must reach the desired tissue site for optimal immune response. Therefore, needle selection should be based upon the prescribed route, size of the individual, volume and viscosity of the vaccine, and injection technique. Typically, vaccines are not highly viscous, and therefore a fine gauge needle (22-25 gauge) can be used.

- **Needle-Free Injection** - A new generation of needle-free vaccine delivery devices has been developed in an effort to decrease the risks of needlestick injuries to healthcare workers and to prevent improper reuse of syringes and needles. For more information on needle-free injection technology, see the CDC website: www.cdc.gov/nip/dev/jetinject.htm.

• **Inspecting Vaccine** - Each vaccine vial should be carefully inspected for damage or contamination prior to use. The expiration date printed on the vial or box should be checked. Vaccine can be used through the last day of the month indicated by the expiration date unless otherwise stated on the package labeling. Expired vaccine should never be used.