Shoulder Injuries Related to Vaccine Administration (SIRVA)

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What is SIRVA? It stands for Shoulder Injury Related to Vaccine Administration. According to the Centers for Disease Control and Prevention (CDC), SIRVA manifests as shoulder pain and limited range of motion occurring after the administration of a vaccine intended for intramuscular administration in the upper arm. These symptoms are thought to occur as a result of unintended injection of vaccine antigen or trauma from the needle into and around the underlying bursa of the shoulder resulting in an inflammatory reaction; onset of symptoms occur less than or equal to 48 hours after vaccine administration. Studies indicate that SIRVA is more likely to occur when vaccines are administered into the upper one-third of the deltoid muscle.

When the deltoid muscle is used for intramuscular (IM) vaccination, steps to follow include:
- Administering IM injections in the thickest, most central part of the muscle
- Using a needle length based on the patient’s age and weight
- Using a 90 degree angle when inserting the needle into the muscle
- Ensuring all immunizing staff members are properly trained

Vaccine administration is a skill that requires supervised practice. A “Skills Checklist for Immunization” and “How to Administer IM and SC Injections” are available at www.immunize.org. The CDC at www.cdc.gov/vaccines, the American Academy of Pediatricians at www.aap.org and the American Pharmacists Association at www.pharmacist.com also offer guidance. In addition, a Vaccine Administration module brought to your clinic site by an Immunization Nurse Educator is available to all Michigan practices; contact MDHHS, Division of Immunization at lockwoodc@michigan.gov.