# Reducing Vaccine Injection Pain in Children A Guide for Health Care Providers

## Preparation:

### Procedure:

Combine strategies to improve pain relief

- · Review this evidence-based guide
- · Provide parent/caregiver with information and tools
- Discuss pain management strategies























# Practice and Documentation

- 1. Assess pain
- 2. Document pain score
- 3. Assess parent and child satisfaction
- Reflect and plan approach for next vaccine

### Document:

- · Age of child
- · Vaccines given
- Pain-relieving strategies used
- Pain score
- · Parent/child satisfaction

see over

# Reducing Vaccine Injection Pain in Children A Guide for Health Care Providers

#### Preparation

Consider using the evidence-based strategies described below in order to minimize pain during vaccine injections in infants/children/teens in your practice. Discuss this information with the parents/caregivers and children/teens prior to vaccine injections.

Sugar + Water



### **Prepare Parents and Children**

- Encourage parents/caregivers and children (when applicable) to prepare for the procedure ahead of time and to use evidence-based strategies to minimize pain and distress in children during vaccine
- Provide parents/caregivers with the HELPinKIDS Information Sheet: A Guide for Parents, Caregivers and Children on How To Reduce Vaccine Injection Pain in Children.

#### **Rapid Injection Without Aspiration**

• Perform all intramuscular injections quickly without prior aspiration. Aspiration is not necessary because the sites used for vaccination are devoid of large blood vessels.

#### **Breastfeeding OR Sweetening Agent**

- Encourage mothers to breastfeed infants during vaccine injections. Ensure that an adequate latch is established prior to injection.
- Alternatively, infants can be given sugar water.
- Sugar water can be made by mixing 1 packet of sugar with 2 teaspoons of water. Feed some to the infant with a syringe or pacifier right before the injection (within 1-2 minutes).
- Sugar water is indicated for the management of painful procedures only, not for general comfort or as a food supplement.

#### **Topical Anaesthetics**

- Can be used for children of all ages.
- Available for purchase from a pharmacy without a prescription.
- Must be applied up to 1 hour before injection, either at home or upon arrival to the appointment. Check product instructions.
- Consider providing topical anaesthetics in your practice for a minimal fee or no cost to parents/caregivers.
- Two doses may be needed (one for each arm or leg) if 2 or more injections are being given. Specify injection site(s) to parent/caregiver.

#### **Upright Position and Holding**

- Infants, children, and teens should not be positioned supine.
- Infants and children should be held by a parent or caregiver in a position that is most comfortable for them and their parent or caregiver (bear hug, on



Sit Child Upright

parent/caregiver's lap). Children may lie down after the injection. If held by a parent/caregiver, have parent sit on a chair or stand against the examination table to minimize the risk for accidental falls. Keep limbs exposed. Have parent/caregiver secure the child, but advise against undue force as it increases distress.

#### **Multiple Injections**

- When multiple vaccines are being administered, always inject the most painful vaccine last.
- There is insufficient evidence for or against simultaneous injections.

#### **Tactile Stimulation Near Injection Site**

• Offer to rub/stroke the skin near the injection site with moderate intensity prior to and during injection in children aged 4 years and

#### Distraction (Led by Provider, Parent/Caregiver or Child)

- Distraction involves taking the child's attention away from the procedure. It is effective for children of all ages.
  - Involve parents/caregivers and children in helping to select the best distraction strategy for the child and involve them in helping with distractions.
- 2. Choose an age-appropriate strategy: Infants: toys, bubbles, singing, directing the infant's attention to something in the environment that would be of interest to them.

Toddlers: toys, bubbles, pop-up books, songs, party blowers, kaleidoscopes, singing, directing attention to something in the environment, non-procedural talk (favourite book, etc.) School-aged children: toys, stories, videos, books, joking, music, counting, non-procedural talk (favourite movie, etc.) Adolescents: games, videos, books, joking, music (iPods, MP3 players), non-procedural talk (favourite video game, etc.)

- Stay focused on the child and interact with the child throughout the procedure.
- Provide verbal and physical reminders for the child to continue to pay attention to the distraction strategy.
- 5. Re-direct the child's attention back to the distraction strategy if their attention wanders to the procedure.
- Use a variety of distractions, and multi-sensorial distractions, as necessary.
- Maintain a positive attitude.
- 8. Praise the child for engaging in distraction behaviours.

#### Deep Breathing

- Prompt children 3 years and older to take slow deep breaths.
- Deep breaths can be facilitated by using bubbles or pinwheels, which also act as distracting techniques.

### Simple Suggestion

DO NOT tell children that "it won't hurt" because evidence shows that this is ineffective. It also promotes distrust. Instead, tell children how potential discomfort will be minimized.

> Combine strategies described above to improve pain relief.

#### **Practice and Documentation**

Health care providers are encouraged to develop a consistent approach to immunization pain management in their practice. This includes: integrating pain management education, preparing parents/caregivers and children in advance whenever possible, ensuring consistent understanding among team members of the effective strategies, implementation and documentation of strategies used, and children's pain. Providers are encouraged to modify the pain management plan for individual children, as needed, in order to minimize pain and distress.

In collaboration with www.aboutkidshealth.ca