Appendix 3 (as supplied by the authors): Age-based algorithm for reducing vaccination pain in adolescents

## Recommendations for Reducing Vaccination Pain in Adolescents 12-17 years

**Ahead** At vaccination visit **During vaccination** of time No aspiration **Procedural** · Most painful last **Strategies** • Positioning – sitting upright **Physical**  External vibrating device with cold **Strategies** · Muscle tension (if history of fainting) Interaction/Wording: **Psychological** DO: use neutral words to signal the impending procedure Strategies DON'T: use repeated reassurance, suggest it will not hurt Topical anesthetics: **Pharmacological** liposomal lidocaine, amethocaine, **Strategies** or lidocaine-prilocaine 20-60 minutes before injection\* **Process Strategies** • Education about pain management for providers, caregivers and individuals Strategies for High

## **Needle Fear**

- Exposure-based therapy
- Applied tension (if history of fainting)



<sup>\*</sup> Check product monograph