1. **Name of the Medical Directive:** Application of Topical Anesthetics prior to Painful Procedures.

2. **Effective Date:**
   - Directive Number: 2051
   - Renewal Frequency: 3 years
   - Expiry Date:

3. **Contact Information**
   - **Area of Practice:** CHEO Inpatient and Outpatient Areas
   - **Contact:** VP Acute Care and Chief Nursing Executive, Extension: 2335

4. **Purpose Statement**
   - To give authority to apply topical anesthetics (EMLA®/Ametop®/Pain Ease®/Maxilene®4) when indicated, in order to achieve dermal analgesia prior to a painful procedure.

5. **Personnel Authorized to Implement the Medical Directive**
   - Personnel authorized listed below must have knowledge (medication, side effects and technique of administration, skills and competency prior initiating this medical directive.
     - Nurses (RN, RPN)
     - Registered Respiratory Therapists (RRTs)
     - Pharmacists
     - Medical Laboratory Technologists /Phlebotomists
     - Medical Laboratory Assistants/Technicians (MLAs/MLTs)
     - Medical Radiation Technologists (MRTs)
     - Anesthesia Assistants (AAAs)
   - **Please Note:** Maxilene®4 for ED & Vascular Access Team ONLY

6. **Patient Population and Indications**
   - Patient undergoing painful procedure:
     - Venipuncture – Ametop® is preferred in small children with small veins
     - Intravenous Insertion
     - PICC & Midline Insertion
     - Totally Implantable Device Access (e.g. Port-a-cath)
     - Arterial Puncture
     - Subcutaneous Injection
     - Intramuscular Injection
     - Lumbar Puncture
     - Bladder Tap
     - Vaccination
     - Intra-articular Injections

7. **Contraindications**
   - Urgent/time-sensitive situations may require that Pain Ease be used preferentially, or that a suboptimal duration of application be accepted even though this will result in an incomplete anesthetic effect. Only in life threatening/emergency situations is it appropriate to not offer any form of anesthetic prior to painful procedures.

8. **Description of the Procedure**
   - Please refer to the “Application of Topical Anesthetics EMLA®/Ametop®/Pain Ease®/Maxilene®4” procedure for further details
     - Identify the patient and assess for indications/contraindications
     - Discuss with patient and or caregiver the indication and requirement for topical anesthetic.
     - Choose the type of topical anesthetic: In most situations; EMLA® is sufficient. If veins are small and difficult to access, or if excess vasoconstriction occurs, Ametop® should be used. Consider whether concurrent oral Sucrose is also indicated.
Enter an appropriate order in Epic using Medical Directives ordering mode. The Implementer is the Ordering Provider, while the correct MRP should be listed as the Authorizing Provider. Enter “2051” in the comment field to indicate ordering under this medical directive. For phlebotomists, no order is entered.

Apply the topical anesthetic as per “Application of Topical Anesthetics EMLA®/Ametop®/Pain Ease®/Maxilene®4” procedure and record in Epic using the MAR functionality, bar-code scanning, etc. For phlebotomists, record the appropriate pain intervention in Beaker.

For areas not yet on Epic, use the “Nursing Initiated Orders” (Form No 9074) to record the medical directive.

Following the painful procedure, ensure that any additional topical anesthetic patches applied to alternate sites are removed and discarded.

8. Consent and Documentation
   - Due to the effectiveness of topical anesthesia in reducing procedural pain, it is an expectation that it is offered for every needle procedure. Therefore, discuss with the patient/family prior to needle-related or other painful procedures.
   - Document procedure in the appropriate section of the patient’s health record (Epic or on paper for those areas not yet on Epic).

9. Quality Management Process
   - This medical directive will be part of the personnel orientation (education and training) by the clinical educator, preceptor or delegate.
   - Incident reports related to the use this medical directive, including failing to use it when appropriate to do so, will be communicated to the Medical Director, Operations Director, Clinical Manager, and health care provider involve in the care of the patient by filling out the on-line Safety Reporting System (SRS). A copy will be forwarded to the Chair of the Medical Directives Committee.
   - The Pain Steering Committee will address issues related to process and outcomes related to this medical directive.
   - Prior to the renewal of this medical directive, an audit will be conducted to verify that the directive is being applied correctly.

10. References and Resources
    CHEO:
        - “Application of Topical Anesthetics EMLA®/Ametop®/Pain Ease®/Maxilene®4” procedure (2016)
        - "Do Not Use" List: Abbreviations, Acronyms, and Symbols
        - CHEO Drug Formulary
        - Consent Policy (2010)
        - Medication Administration Policy No 261 (2017)
        - Patient/Client Safety Event Reporting No 354 (2018)
        - Lexicomp®, Micromedex and CPS online
        - Non Pharmacological Approaches to Pain Management Policy No PAIN-6 (2016)
        - Medical Directives Policy No OTH-1 (2017)
        - Nursing Initiated Orders (Form No 9074)
        - Pain Assessment, Management & Documentation Policy (2018)
        - Patient Identification Using Two Patient Identifiers Policy No 040 (2017)
        - Sucrose 24% for Procedural Pain Management (2018)
    Other:
        - College of Nurses of Ontario (CNO):
          - Practice Guidelines:
            - Authorizing Mechanisms (revised 2018)
            - Consent (updated 2017)
            - Directives (updated 2018)
          - Practice Standards:
- Decisions About Procedures and Authority, Updated 2018
- Documentation, Revised 2008 (updated 2017)
- Medication, Revised 2017
- An Interprofessional Guide on the Users of Orders, Directives and Delegation for Regulated Health Professionals in Ontario
- College of Respiratory Therapists of Ontario (2013) Orders for Medical Care
- Ontario College of Pharmacists of Ontario; Position Statement: Medical Directives and the Ordering of Controlled Acts
- Ontario Laboratory Accreditation Requirements (2013). OLA Requirements, Version 6.0
- Regulated Health Professionals Act, 1991 (RHPA) Ontario Regulation
## APPENDIX-CONTRAINDICATIONS

- A child or adolescent, who is informed about the topical anesthetic agents, and experienced with needle-related procedures, declines the use of topical anesthesia
- A parent of a young child who has observed the effects of topical anesthetic agents and declines the use
- Life threatening situations due to the lack of time topical anesthesia to take effect
- The child or adolescent has a confirmed allergy to all available topical anesthetic agents. However, establish that a reported allergy is not blanching or erythema of the skin which is an expected outcome of topical anesthesia

<table>
<thead>
<tr>
<th>EMLA®</th>
<th>Ametop®</th>
<th>Pain Ease®</th>
<th>Maxilene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eutectic Mixture of 2.5% Lidocaine &amp; 2.5% Prilocaine</td>
<td>4% Tetracaine</td>
<td>1,1,1,3,3-Pentafluoropropane and 1,1,1,2-Tetrafluoroethane</td>
<td>Liposomal lidocaine 4%</td>
</tr>
</tbody>
</table>

- Known hypersensitivity to any local anesthetics of the amide type
- Pre-term infants less than 37 weeks gestation
- Methemoglobinemia or infants less than 12 months of age receiving a methemoglobin-inducing agent (i.e., nitroprusside, sulfonamides)
- Application to eyes (corneal irritation)
- Application to ear canal with a non-intact tympanic membrane
- Open wounds, surgical incisions or mucous membranes
- Application to large, occluded areas of the skin
- Severe hepatic dysfunction

- Known hypersensitivity to tetracaine or any component
- Pre-term infants less than 37 weeks
- Broken skin or mucous membranes
- Application to the eyes
- Application to ear canal with a non-intact tympanic membrane
- Open wounds, surgical incisions or mucous membranes
- Application to large, occluded areas of the skin
- Application for prolonged periods of time (i.e. greater than 45 minutes)
- Caution in patients with epilepsy

- Known hypersensitivity to Pentafluoropropane and Tetrafluoroethane
- Child less than 3 years of age or developmentally unable to understand concept of spray application
- If skin irritation develops, discontinue use
- Application to ears
- Patient/family preference
- Patients with diabetes with documented circulatory concerns
- Application to large areas of damaged skin, puncture wounds, animal bites or serious wounds
- Application on genital or mucous membranes

- Known hypersensitivity to lidocaine, amide-type anesthetics, or any component
- Pre-term infants less than 37 weeks gestation
- Application to eyes (corneal irritation)
- Application to ear canal with a non-intact tympanic membrane
- Open wounds, surgical incisions or mucous membranes
- Application to large, occluded areas of the skin
- Severe hepatic dysfunction