

## TITLE

**SUPRAGLOTTIC AIRWAY INSERTION BY REGISTERED NURSES**

## SCOPE

Provincial: Emergency Departments – Rural

## DOCUMENT #

HCS-202

## APPROVAL AUTHORITY

Vice President, Provincial Clinical Excellence

## INITIAL EFFECTIVE DATE

March 27, 2017

## SPONSOR

Emergency Strategic Clinical Network

## REVISION EFFECTIVE DATE

April 30, 2021

## PARENT DOCUMENT TITLE, TYPE, AND NUMBER

Not applicable

## SCHEDULED REVIEW DATE

April 30, 2024

**NOTE:** The first appearance of terms in bold in the body of this document (except titles) are defined terms – please refer to the Definitions section.

If you have any questions or comments regarding the information in this document, please contact Policy Services at [policy@ahs.ca](mailto:policy@ahs.ca). The Policy Services website is the official source of current approved policies, procedures, directives, standards, protocols, and guidelines. Only the electronic version of this document, as hosted on the Policy Services website or [www.ahs.ca](http://www.ahs.ca), is valid.

**OBJECTIVES**

- To enhance the safety of **patients** with airway compromise (arrest and pre-arrest) within emergency department rural settings.
- To establish safe practice standards for the insertion of supraglottic airways by specially qualified Emergency Department (ED) Registered Nurses (RNs) in rural settings.

**APPLICABILITY**

Compliance with this document is required by all Alberta Health Services employees, members of the medical and midwifery staffs, students, volunteers, and other persons acting on behalf of Alberta Health Services (including contracted service providers as necessary).

**ELEMENTS****1. Points of Emphasis**

- 1.1 The insertion of a supraglottic airway is restricted to **health care professionals** who demonstrate continuing competency in the advanced practice of inserting the supraglottic airway.
  - a) A RN who has successfully completed the practice competency requirements for supraglottic airway insertion may insert and manage a supraglottic airway when patients meet criteria as outlined in Section 3 below.

- 1.2 Each site supporting RN insertion of supraglottic airways shall complete the items on the site implementation checklist. Refer to *Appendix A: ESCN Site Implementation Checklist- Supraglottic Insertion by RNs*.
- 1.3 Supraglottic airway is an airway device that lies inside the oropharyngeal and supraglottic area, but outside of the glottis. The insertion of a supraglottic airway is indicated for patients with symptomatic critical hypoxia (SpO<sub>2</sub> less than or equal to 85% in adults or 90% in pediatrics) refractory to 15 litres per minute (LPM) high flow oxygen with bag-mask ventilation and an oropharyngeal airway or nasopharyngeal airway.

## 2. Professional Responsibility

- 2.1 RNs qualified to insert supraglottic airways shall:
- a) have completed the required education, as set out in Section 2.2 below;
  - b) be competent in the advanced skills for inserting supraglottic airways;
  - c) be competent to perform bag-valve mask (BVM) ventilation; and
  - d) be competent to assess for adequacy of ventilatory and oxygenation status.
- 2.2 In order to be qualified, RNs shall complete supraglottic airway insertion education composed of the following:
- a) Prerequisites:
    - (i) Cardiac arrest management or trauma education (Advanced Cardiac Life Support [ACLS], Trauma Nurse Core Course [TNCC], Emergency Practice, Interventions and Care Canada [EPICC], or equivalent); and
    - (ii) Current experience in emergency nursing.
  - b) Successful completion of the following:
    - (i) Adult Airway Management in Respiratory Emergencies - ED/UCC Learning Module; and/or
    - (ii) Pediatric Airway Management in Respiratory Emergencies - ED/UCC Learning Module;
    - (iii) The applicable provincial Supraglottic Airway Learning Module(s) (e.g., *Insertion of the i-gel® Airway in the ED/UCC Learning Module*), as determined by local department product preference;
    - (iv) Capnography and Capnometry in the ED/UCC Learning Module; and

- (v) The applicable provincial Supraglottic Airway Evaluation Checklist(s) (e.g., *Skill / Equipment Evaluation Checklist – i-gel® Insertion*), as determined by local department product preference and with a **qualified trainer**.

2.3 Ongoing competency training shall include:

- a) successful demonstration of skills as listed in the Supraglottic Airway Evaluation Checklist with a qualified trainer annually;
- b) completion of the applicable provincial Supraglottic Airway Learning Module(s) (e.g., *Insertion of the i-gel® Airway in the ED/UCC Learning Module*), as determined by local department product preference; every six months plus hands on skill practice; and
- c) maintaining individual competency with review of course work (Learning Modules) as deemed necessary by the RN, Clinical Nurse Educator (CNE) and/or Manager.

2.4 Where available, RNs qualified to insert supraglottic airways are encouraged to seek out opportunities to maintain competency in a supervised setting (e.g., Operating Room).

### 3. Criteria for Supraglottic Airway Insertion by a Qualified RN

3.1 A qualified RN can insert the appropriate supraglottic airway when all the following criteria are met:

- a) **Goals of Care Designation** (GCD) of R1 or R2 exists; or an unknown GCD;
- b) the patient has symptomatic critical hypoxia (SpO<sub>2</sub> 85% or less in adults; SpO<sub>2</sub> 90% or less in pediatrics) refractory to 15 litres per minute (LPM) high flow oxygen with BVM (two [2]-person BVM when resources are available) and an oropharyngeal airway (OPA) / nasopharyngeal airway (NPA);
- c) patients with an altered level of consciousness (LOC) with a Glasgow Coma Scale of eight (8) or less and an absent gag reflex who require ventilation; and
- d) patient age greater than one (1) year.

3.2 A supraglottic airway shall not be inserted if there is any contraindication for use as identified in the applicable AHS Supraglottic Airway Learning Modules and/or manufacturer's recommendations.

#### 4. Adult and Pediatric Airway Assessment and Management

- 4.1 A standard approach for adult and pediatric airway management and ongoing assessment shall be followed as outlined in:
- a) Adult Airway Management in Respiratory Emergencies ED/UCC Learning Module; and
  - b) Pediatric Airway Management in Respiratory Emergencies ED/UCC Learning Module.
- 4.2 Interventions to be performed prior to supraglottic airway insertion include:
- a) positioning the patient;
  - b) bag-mask ventilation (two [2] person BVM when resources are available), with high flow oxygen and an OPA/NPA; and
  - c) passive oxygenation using nasal cannula oxygen. Passive oxygenation flow rates are as follows:
    - (i) greater than eight (8) years: 15 litres per minute (LPM);
    - (ii) one (1) to seven (7) years: 10 LPM; or
    - (iii) less than one (1) year: five (5) LPM.
- 4.3 Confirmation of supraglottic airway placement is required.
- a) Continuous end tidal carbon dioxide (EtCO<sub>2</sub>) monitoring provides valuable information on airway placement and effectiveness of ventilation.

#### 5. Documentation

- 5.1 Documentation of assessments, type of airway inserted how patient tolerated the procedure, confirmation of airway placement, and patient outcomes in the patient's **health record**.

#### DEFINITIONS

**Goals of care designation** means one of a set of short-hand instructions by which health care providers describe and communicate general care intentions, specific clinically indicated health interventions, transfer decisions, and locations of care for a patient as established after consultation between the most responsible health practitioner and patient or alternate decision-maker.

**Health care professional** means an individual who is a member of a regulated health discipline, as defined by the *Health Disciplines Act* (Alberta) or the *Health Professions Act* (Alberta), and who practises within scope and role.

**Health record** means the collection of all records documenting individually identifying health information in relation to a single person.

**Patient** means an adult or child who receives or has requested health care or services from Alberta Health Services and its health care providers or individuals authorized to act on behalf of Alberta Health Services. This term is inclusive of residents, clients and outpatients.

**Qualified trainer** means, for the purposes of this document, a Registered Nurse, Paramedic or other health care professional that has successfully completed the supraglottic airway insertion instructor course.

## REFERENCES

- Appendix A: *ESCN Site Implementation Checklist – Supraglottic Airway Insertion by RNs*
- Alberta Health Services Governance Documents:
  - *Advance Care Planning and Goals of Care Designation Policy (#HCS-38)*
  - *Consent to Treatment and Procedure(s) Policy Suite (#PRR-01)*
- Alberta Health Services Resources:
  - Adult Airway Management in Respiratory Emergencies ED/UCC Learning Module
  - Capnography and Capnometry in the ED/UCC Learning Module
  - *ESCN Site Implementation Checklist- Supraglottic Insertion by RNs*
  - *ESCN Supraglottic Skills Training Framework- Provincial Scope*
  - Insertion of Laryngeal Mask Airway (LMA™) in the ED/UCC Learning Module
  - Insertion of the i-gel® Airway in the ED/UCC Learning Module in the ED/UCC
  - Pediatric Airway Management in Respiratory Emergencies ED/UCC Learning Module

© 2021, Alberta Health Services, Policy Services



This work is licensed under a Creative Commons Attribution-Non-commercial-Share Alike 4.0 International license. The licence does not apply to AHS trademarks, logos or content for which Alberta Health Services is not the copyright owner. This material is intended for general information only and is provided on an "as is", "where is" basis. Although reasonable efforts were made to confirm the accuracy of the information, Alberta Health Services does not make any representation or warranty, express, implied or statutory, as to the accuracy, reliability, completeness, applicability or fitness for a particular purpose of such information. This material is not a substitute for the advice of a qualified health professional. Alberta Health Services expressly disclaims all liability for the use of these materials, and for any claims, actions, demands or suits arising from such use.

## APPENDIX A

**ESCN Site Implementation Checklist – Supraglottic Airway Insertion by RNs**

The ability for a Registered Nurse (RN) in rural Emergency Department sites to insert a supraglottic airway is a potential life-saving measure when patients present with airway compromise that may not be manageable with bag-valve mask ventilation. These patients can deteriorate very quickly if airway management is not achieved.

For successful implementation, completion of the following criteria are critical to support RN competence with supraglottic airway insertion and the provision of safe patient care in these rare but critical circumstances.

Criteria	√
<ul style="list-style-type: none"> <li>Endorsement of local emergency department operational leadership (nursing management and medical director) to support the practice of RN supraglottic airway insertion.</li> </ul>	
<ul style="list-style-type: none"> <li>Clinical nurse educator (and/or designate) dedicated to the role of qualified trainer(s) at site as outlined in the Supraglottic Airway Training Framework.</li> </ul>	
<ul style="list-style-type: none"> <li>Support and monitoring of on-site RN training for initial and ongoing competency training.</li> </ul>	
<ul style="list-style-type: none"> <li>ED Physician support for mentoring trained RN with supraglottic airway insertion.</li> </ul>	
<ul style="list-style-type: none"> <li>Site to determine which supraglottic airways will be standard issue in the Emergency Department. RN training resources include the Laryngeal Mask Airway (LMA™) and i-gel®. Note: King-LT™ is no longer utilized by EMS and has been removed from central inventory.</li> </ul>	
<ul style="list-style-type: none"> <li>Access to training equipment (intubation head and practice airways) for initial and ongoing competency training as outlined in the policy and training requirements.</li> </ul>	
<ul style="list-style-type: none"> <li>Adherence to the Supraglottic Airway Insertion by Registered Nurses Policy and supporting training resources.</li> </ul>	
<ul style="list-style-type: none"> <li>Site leadership to provide opportunity for health care professionals to:               <ul style="list-style-type: none"> <li>Debrief after each RN insertion/insertion attempt</li> <li>Track incidents for manager review via Reporting and Learning System (RLS)</li> </ul> </li> </ul>	