

## **SUBJECT: PULSE OXIMETRY Nasal Alar SpO2 Sensor recommended protocol**

### **NASAL ALAR SpO2 SENSOR:**

The Nasal Alar SpO2 sensor should be used to monitor patients when a reliable and accurate signal cannot be obtained with a peripheral digit sensor. The Alar sensor should be considered for use once the digit sensor has failed or as the first line choice sensor for patients with the following conditions:

- a. Patients receiving IV Vasopressors
- b. Hemodynamically unstable patients
- c. Hypothermia patients
- d. Patients in low perfusion states from endogenous vasoconstriction or decreased arterial flow / poor cardiac output
- e. Peripherally compromised patients
- f. Patients placed in Trendelenburg position
- g. Patients where movement, rigors or shivering may compromise the peripheral reading of SpO2

### **GENERAL SpO2 INFORMATION**

Pulse Oximetry is the non-invasive measurement of arterial oxygen saturation or the SpO2; this results from the amount of oxygen transported on the hemoglobin molecule. Pulse Oximetry is an early warning of hypoxemia and hypoxia.

Indications for use of the pulse oximetry may include yet not limited to any of the following: Evaluate and/or monitor oxygen therapy on a continuous or intermittent basis -Evaluate or monitor oxygen saturation in individuals who are hemodynamically unstable. -Evaluate oxygen saturation in individuals with sleep apnea or upper airway obstructions. -Monitor oxygen saturation in individuals where arterial puncture is difficult or contraindicated. -Use during a medical emergency-all mechanically ventilated patients.

There are no contraindications to the use of Pulse Oximetry. It does not indicate changes in either ventilation or metabolic conditions. For this reason, Pulse Oximetry should not be an alternative to an Arterial Blood Gas.

### **Indicated Use of Nasal Alar Sensor Protocol**

1. If initial finger sensor fails to provide adequate SpO2 values, or if SpO2 waveform is weak and inconsistent remove finger sensor. Immediate second sensor applied should be Alar sensor
2. Alar sensor should be used as initial and primary SpO2 sensor to monitor the patients with the earlier outlined conditions.

## ALAR SENSOR USE GUIDELINES

1. Application begins with good site prep to ensure a clean connection and a strong signal. Wiping the outside of the nose at the nasal ala site, and if necessary, swabbing the inside to insure clean contact is important.
2. Once the site is prepped, use the provided applicator to apply the sensor to the ala on the back part of the nostril toward the cheek. Once in place remove the applicator. Note that the sensor has been designed specifically to fit on the ala with the larger rectangular curved pad and cable on the outside.
3. Secure the sensor by running the cable under and around the ear, leaving some slack over the cheek. Should the ear be unavailable, you can secure the sensor over the cheek using skin-safe tape. The goal is to make sure the cable has slack and does not hang freely from the nostril.
4. Following initial application, the Alar sensor should be repositioned to the alternate ala moving the at least every 4 hours and checking the site at 2 hours for all patients deemed High Risk, including patients on Vasopressors, External Cardiac Assist Devices, and previous or high potential for skin breakdown.
5. For all routine or low risk patients change site every 8 hours; checking the skin at the application site at 4 hours. The sensor can also support a more vigilant protocol to further protect high risk patient's skin integrity.
6. The Alar sensor can be used for up to 7 days.
7. If the patient is arriving from the OR/PACU/ED or other clinical arena rotate the sensor upon admission.
8. The Nasal Alar Sensor is appropriate for use with non-invasive ventilation and may be use simultaneously on the nare with an NG or nasal ETT.