Nasal Cannula

Purpose: To provide a consistent method for providing oxygen via nasal cannula to neonatal patients in the NICU.

Description: The following is a protocol for placement and weaning of oxygen via nasal cannula.

Indications: 1. Physician order.  
2. Chronic use of oxygen via hood with inability to wean.  
3. Change of delivery device to facilitate nipple feeding.

Hazards: 1. Obstructed nasal prongs.  
2. Flow variability  
3. Inexact FiO2

Equipment: 1. Correctly sized nasal cannula: premie, neonatal or infant. Choose the largest size that fits comfortably without occluding the nares.  
2. Humidifier.  
3. Sterile water.  
4. Low flow blender.  
5. Low range flowmeter (0-1 LPM).

Personnel: Respiratory therapists and technicians.

2. Fill humidifier with water, attach to blender.  
3. Place cannula on the patient.  
4. Attach to humidifier.  
5. Set flow at 0.5 liters per minute.  
6. Set FiO2  
7. Wean the flow down to 0.1lpm in increments of 0.1 lpm.  
8. After the flow has been weaned, decreased the FiO2 in 5% increments to 21%.  
9. After the infant has been weaned to 0.1 lpm at 21%, then remove the cannula to room air.

NOTE: If at any time during the process the infant deteriorates, reverse the process. For example, if the patient is at 0.1lpm and an FiO2 of 60% and the SpO2 decreases, increase the FiO2 in 10% increments until the SpO2 rises. If the sat does not increase after increasing the FiO2 to 100%, then increase the flow in increments of 0.1lpm until the sat returns to an acceptable range. If the flow has to be increased by 0.2 lpm or greater, the physician must be notified. If the infant requires more than 0.5 lpm at 100%, then the next step is to put the infant under an oxyhood at 40%. The physician must be notified for this change also. The weaning process can begin again.
Infection Control:

Universal precautions should be followed during this procedure. Nasal cannulas should be changed when they become plugged. Humidifiers should be changed every Monday Friday.

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