

CPAP Care Bundle

This guideline will provide all staff on proper use of CPAP fixation as all medical and nursing staff are responsible for looking after any infant on CPAP.

This guideline was created in order to:

1. Promote optimal gas exchange
2. Ensure comfort
3. Prevent nasal breakdown
4. Prevent intubation due to CPAP failure.

Documentation should be completed in BadgerNet (See photos below for reference) and Datix filled out for any baby who suffers from nasal septal redness or breakdown. Please ensure that you fill out the following sections to completion as regular audits will be undertaken.

- Respiratory support
 - o Ventilation
 - o Non-Invasive
 - Condition of the nose should be assessed and documented every 3 hours with changing between mask and prongs.
 - Complete Nasal Septum scoring every 3 hours with each mask/prong change.
 - Mask and prong size should be documented in the nursing notes narrative.
- Integrity of skin Barrier: intact, moist, peeling, or changed. This should be documented in the nursing notes narrative.
- Humidifier
 - o Humidifier temperature and water level.

- Where to document condition of nose:

Smart search	Summary	Trends A	Basic obs	Vent trends	Nursing obs	Resp support	Abnormal mov.	Apnoea/Bradycardia	BGas/Vent
Patient Summary	Respiratory support								
Admissions	Respiratory Support								
Pregnancy details	Mode	BIPAP	BIPAP	BIPAP	BIPAP	BIPAP	BIPAP	BIPAP	BIPAP
Reviews	Inspired O2	51	64	65	65	65	52	44	38
Nursing care	Conventional Ventilation								
Procedures / events	PIP	15.0	15.0	15.0	15.0	14.0	14.0	15.0	15.0
Drugs, Lines, Devices	PEEP/CPAP	10.2	10.0	10.0	10.2	10.1	10.0	10.7	10.0
Fluids and feeding	Rate	40	40	40	40	40	40	40	40
Obs / Monitoring	CPAP								
Lab results	CPAP Gas Flow	17.50	16.00	16.00	16.00	18.00	18.00	16.00	15.50
Scoring	CPAP Pressure	11.5	11.5	11.3	11.4	10.9	10	11.4	11.4
Research / Audit	Prongs / Mask	Prongs	Mask	Mask	Mask	Prongs	Prongs	Prongs	Prongs
Tasks / reminders	Humidifier								
Daily notes	Humidifier Temp	37.0	37.2	37.1	37.0	36.9	36.9	37.1	37.2
All patient notes	Humidifier water level	ok	ok	ok	ok	ok	ok	ok	ok
Patient reports	19 Nov 24 12:00 19 Nov 24 13:00 19 Nov 24 14:00 19 Nov 24 15:00 19 Nov 24 16:00 19 Nov 24 17:00 19 Nov 24 18:00 19 Nov 24 19:00 19 Nov 24 20:00 19 Nov 24 21:00 19 Nov 24 22:00 19 Nov 24 23:00 20 Nov 24 00:00 20 Nov 24 01:00 20 Nov 24 02:00 20 Nov 24 03:00 20 Nov 24 04:00								
Other reports / labels	1 days 0hrs 55mins								
Growth charts									
Daily summary forms									
Badger notes									
Discharges									
Simple stay view									
Follow-up									

Respiratory Support

Note date and time 19 Nov 24 at 16:00
Respiratory Support BIPAP
Inspired O2 65 %

Ventilation

PIP Measured 14.0 cm H2O
PEEP/CPAP Measured 10.1 cm H2O
Rate 40 bpm

Non Invasive

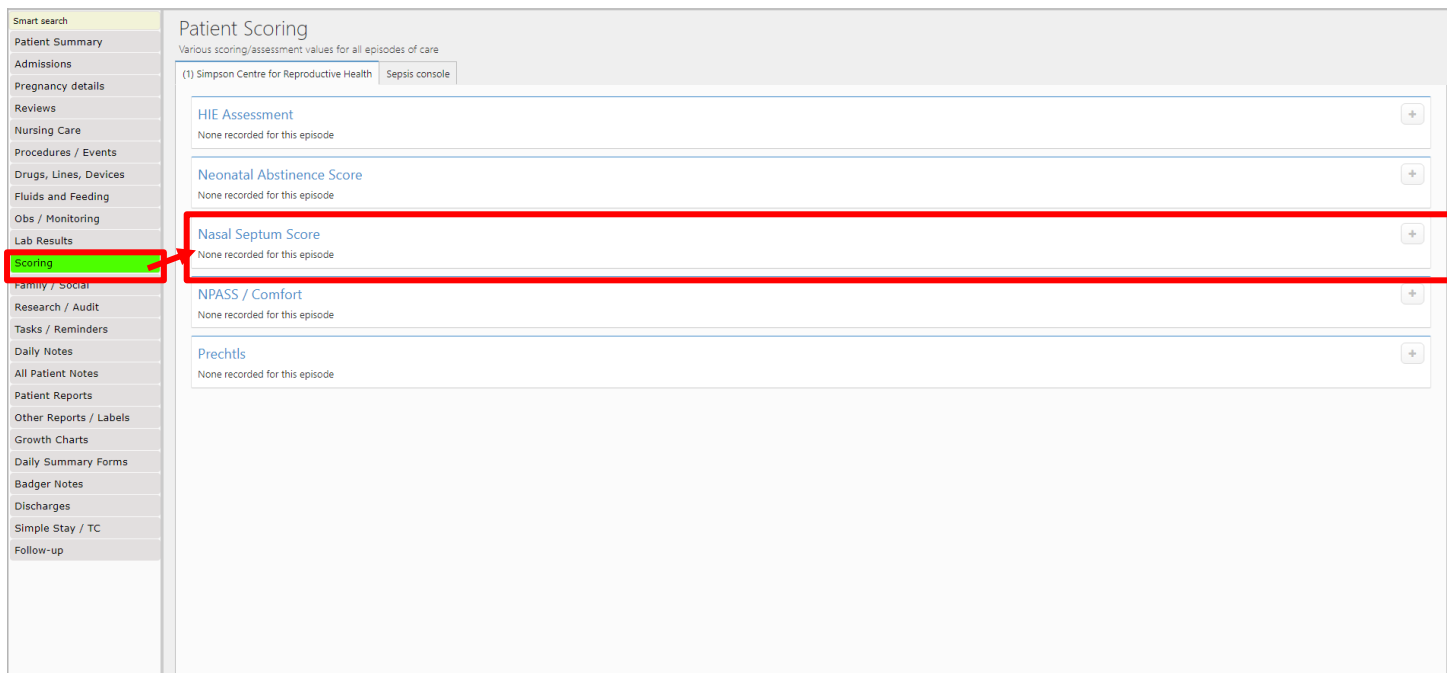
Prongs/mask ☒ Prongs ☐ Mask
Check position of nasal prongs ☒ Yes
Condition of nose Protection insitu, Other: Red mark from mask changed to prongs.
Gas Flow 18.00 l/min
CPAP mean airway pressure 10.9 cm H2O

Humidifier

Humidifier Temperature 36.9 °C
Humidifier water level ok

Documentation of Condition of nose.

- Where to complete Nasal Septum Scoring:



Smart search

Patient Summary

Admissions

Pregnancy details

Reviews

Nursing Care

Procedures / Events

Drugs, Lines, Devices

Fluids and Feeding

Obs / Monitoring

Lab Results

Scoring

Family / Social

Research / Audit

Tasks / Reminders

Daily Notes

All Patient Notes

Patient Reports

Other Reports / Labels

Growth Charts

Daily Summary Forms

Badger Notes

Discharges

Simple Stay / TC

Follow-up

Patient Scoring

Various scoring/assessment values for all episodes of care

(1) Simpson Centre for Reproductive Health Sepsis console

HIE Assessment

None recorded for this episode

Neonatal Abstinence Score

None recorded for this episode

Nasal Septum Score

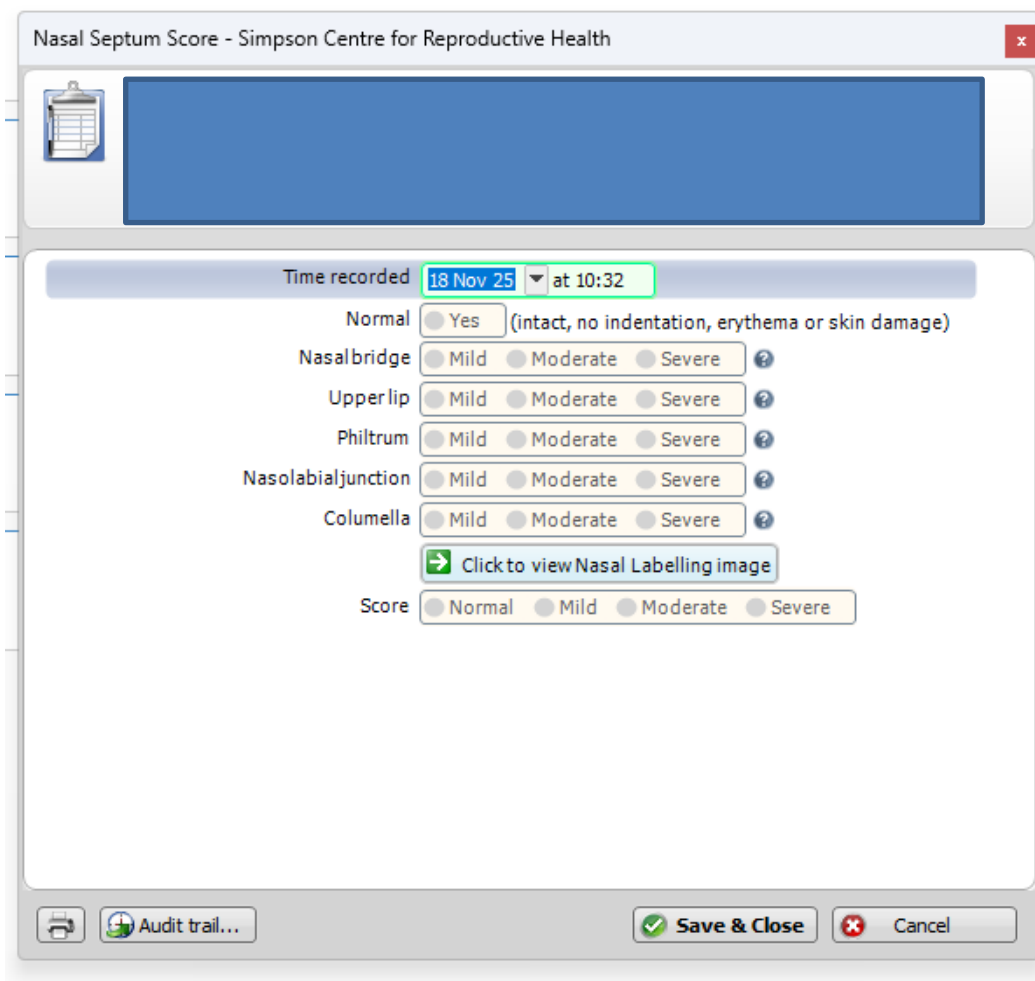
None recorded for this episode

NPASS / Comfort

None recorded for this episode

Prechtl's

None recorded for this episode



Nasal Septum Score - Simpson Centre for Reproductive Health

Time recorded 18 Nov 25 at 10:32

Normal ☒ Yes (intact, no indentation, erythema or skin damage)

Nasal bridge ☐ Mild ☐ Moderate ☐ Severe ?

Upper lip ☐ Mild ☐ Moderate ☐ Severe ?

Philtrum ☐ Mild ☐ Moderate ☐ Severe ?

Nasolabial junction ☐ Mild ☐ Moderate ☐ Severe ?

Columella ☐ Mild ☐ Moderate ☐ Severe ?

[Click to view Nasal Labelling image](#)

Score ☐ Normal ☐ Mild ☐ Moderate ☐ Severe

Audit trail... Save & Close Cancel

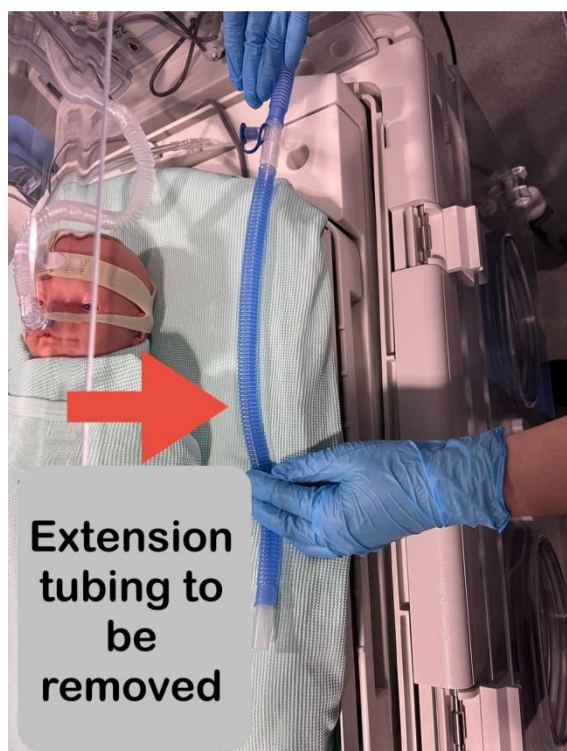
A Bundle has been created to ensure that correctly sized mask or prongs are correctly positioned without causing undue pressure, and that the condition of the nose is protected with a barrier and both assessed regularly to prevent breakdown.

Prior to initiating CPAP and throughout the course of CPAP use, please ensure that you are following the bundle items:

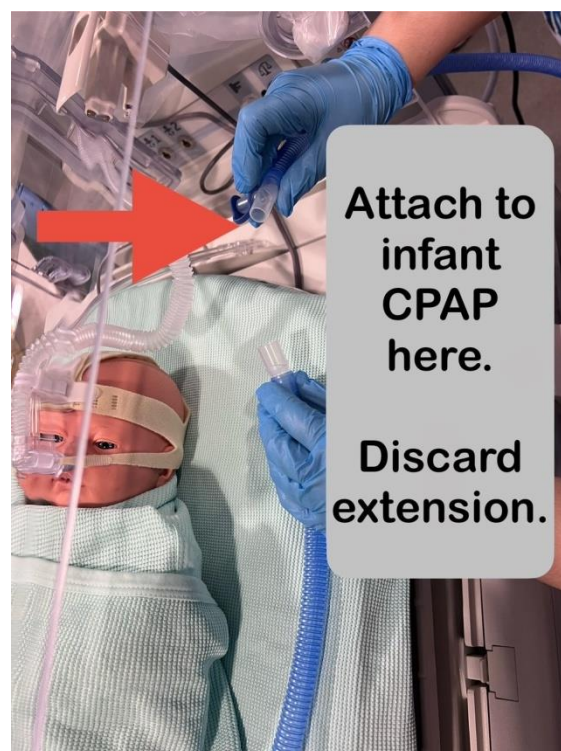
- **Size:** sizing should be verified with two people using Vyair's measuring tool when first placed on CPAP and weekly to verify size.
- **Pressure (with cares):**
 - Prongs should be checked to ensure that they are not resting on the nasal septum.
 - Masks should be checked to ensure they are not touching the nares at any point and that they are not resting on the nasal septum.
 - Straps should be loose enough across the cheeks to fit one finger's width.
 - Change/alternate and relieve pressure from the CPAP mask/prongs every 3 hours and ensure the area is completely dry before re-securing. Moisture removal is essential. Change infants position.
 - For extremely preterm infants, prongs may be challenging. If the CPAP mask becomes too warm and collapses, alternate between two masks, allowing one to cool and dry between uses.
- **Protect:** Use Cavilon barrier film stick to coat nasal area.
 - This should be a two person task.
- **Rainout:** CPAP/DuoPap circuit should run down away from baby- this ensures rainout moves away from the babies' nose and does not cause moisture around the nasal area. Temperature probe should be located inside of the incubator. The blue extension tubing should be removed and the exhaust tubing placed just outside of the incubator. (see photos below for reference)
- **Clean:** Masks/prongs should be washed in hot water with mild detergent and stored in a clean container to air dry outside the incubator but within the infant's cot space. Masks/prongs should be replaced at least weekly, sooner if either is visibly soiled.
- **Monitor:** Documentation of condition of nose and nasal septum scoring should be completed at each mask/prong change and the senior nursing should be notified when redness or breakdown is noted. This can be escalated to senior medical as required. Tissue Viability should be contacted when skin breakdown is noted for early input and a datix should be completed.
- **Positioning:** Infants should be repositioned one quarter turn every 6 hours in keeping with the IVH bundle or every 3-4 hours with cares. For appropriate positioning, please refer to the positioning guideline.

Photo references:

Step 1:



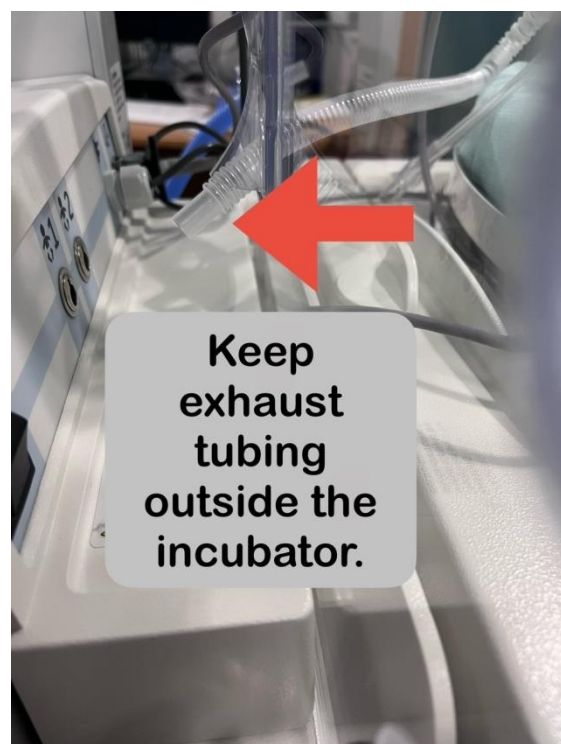
Step 2:



Step 3:



Step 4:



References:

Dai, Tian; Lv, Limin; Liu, Xiaojuan; Chen, Jin; Ye, Yalan; Xu, Lixuan. Nasal Pressure Injuries Due to Nasal Continuous Positive Airway Pressure Treatment in Newborns: A Prospective Observational Study. *Journal of Wound, Ostomy and Continence Nursing* 47(1):p 26-31, January/February 2020. DOI: 10.1097/WON.0000000000000604

NHS University Hospitals of Leicester. (2023, July). UHL Neonatal Guideline: CPAP Nursing Care. V: 4 Approved by: Women's Quality & Safety Board Trust ref: C35/2015