Covenant Health *Compassionate care led by Catholic values*	**Assessment of the Newborn Infant**	**Neonatal Nursery Policy & Procedures Manual** **Policy Group**: Assessment
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Policy Statement

1. Registered Nurses will perform a complete assessment of each patient assigned to her care at the beginning of the shift and with changes in patient condition and when appropriate from a developmental perspective. The initial assessment gives the RN/LPN a baseline for normal for the patient to compare changes in condition with.

2. A complete assessment is individualized to each patient's condition focusing more intently on the patient's diagnosis. For example, if the baby has been admitted for a skull fracture or asphyxia, a more detailed neurological assessment is required.

3. If there is something in the assessment that is of concern, the nurse will notify the person in charge and there will be collaboration with the appropriate team members for intervention. This will be documented on the patient's chart.

4. A gestational assessment is performed on all infants within 24 hours of admission to the Neonatal Nursery.

5. The assessment uses observation, auscultation and palpation.

Procedure

A. PHYSICAL ASSESSMENT

Central Nervous System

- Activity level, movement, muscle tone, response to handling, state regulation
- Abnormalities of suck, swallow and gag reflexes
- Pupil reaction, level of consciousness
- Anterior fontanel and head circumference
- Presence and description of seizures
- Sedation score, pain score and withdrawal scores as appropriate
- Presence and condition of external ventricular drains, V/P shunts, reservoirs
- Body temperature, incubator temperature
- Medication-sedation, analgesics, relaxants, anticonvulsant, non-depolarizing muscle relaxants

Procedure

Respiratory System

- Respiratory rate, work of breathing (nasal flaring, grunting, retractions, stridor)
- Air entry and adventitious sounds
- Patency of airway including nares
- Respiratory Assistance – ventilator parameters and changes made
- Patency of airway management (nasal cannula, ETT, nasal prongs/mask)
- Oxygen requirements and trends
- Blood gas results and non-invasive monitoring values
- Chest tubes – location, type and amount of drainage; suction level, drainage replacement
- Chest physio/suction (frequency; type & amount of secretions)
- Apnea/bradycardia/desaturations
- Medications – Nitric oxide, bronchodilators, steroids, caffeine, surfactant

Cardiovascular

- Heart rate and rhythm; description of heart sounds
- Blood Pressure
- Perfusion/CFT/quality of pulses
- Presence of murmur and description
- Type and amount of blood products given. Current Hct/Hgb
- Type and amount of any medications given e.g. Digoxin, anti-hypertensive's, inotropes, Indomethacin, steroids, anticoagulants, anti-arrhythimic

Gastrointestinal

- Feeds (type, volume, amount, frequency, route, tolerance)
- Abdominal assessment – contour, firmness, colour, distension, and tenderness
- Presence of bowel sounds, bowel movement
- Gastric tubes and drainage from same, replacement for gastric drainage
- Stoma appearance and function, ostomy effluent colour, consistency and volume of losses
- Size of liver/spleen
- Medications-motility drugs, antacids, proton pump inhibitors

B. EQUIPMENT CHECK

Each shift, equipment will be checked for safety:

- Bedside monitors should be checked to ensure that the alarms are on, limits set, and calibrations done as required
- All electrical plugs are inserted into outlet properly
- Check to see that Smart Pump is in the NICU mode
- Respiratory equipment:
  - Suction set is complete and functional.
  - Bagger capable of delivering $FiO_2$1.00 at bedside.
  - Correct size masks.
  - Blended oxygen source to bag if available.
  - Oxygen analyzers should be calibrated at least once per shift.
  - T-piece resuscitator is functional and set to patient parameters.
  - Artificial airways are secured and in the correct position.
  - Emergency airways are kept at the bedside if one is in use on the patient (oral airways, trumpets).
- Incubator/Radiant Warmers
  - The incubator/radiant warmer is on.
  - The ISC/ISO control point setting is correct for the infant.
  - The incubator temperature and humidity is appropriate for the infant (neutral thermal environment).
  - The ISC probe is positioned correctly.

C. EMERGENCY DRUG SHEET

- Complete and accurate with current calculation weight.
- Verified and signed by two nurses.

D. IDENTIFICATION BANDS

- Two correct identification bands are on the infant. For easier patient identification, one band will be applied to the infant's wrist.
- BBIN band is attached as applicable.
- Allergy/alert band attached as applicable

E. VITAL SIGNS

Unstable Patients

Every hour the heart rate, respiratory rate, saturation level, and inspired oxygen level should be noted and charted on any unstable patient or a patient in oxygen. The nurse may use her discretion if vital signs need to done more frequently.

Convalescent Infants ON Monitors

Infants have continuous heart rate monitoring. every hour the heart rate, respiratory rate, saturation level, and inspired oxygen level should be noted and charted.

Convalescent Infants OFF Monitors

Full assessments including heart rate and respiratory rate and the amount of supplemental oxygen are done at least once per shift (8 hours).

Temperature Monitoring

1. Temperature is taken via the axilla. Infants older than 2 months of age may have rectal temperatures done to determine the presence of fever.
2. Temperatures are monitored as follows:
   - All infants on admission.
   - Healthy Term – Every 4 hours until stable, then every 8 hours.
   - Preterm/LBW – Every 1 to 3 hours, then every 6 hours when greater than 2 weeks of age.
   - Critically ill/unstable – Every 1 to 2 hours in radiant heat environment; every 3 to 4 hours in incubator. Unstable infants in an incubator may have an ISC probe to monitor axilla temperature.
3. In the event of temperature instability or low temperature, axilla temperatures are taken every 30 minutes until stable.
4. Infants under phototherapy are monitored every hour for 3 hours and then every 4 hours.
5. Incubator temperatures and humidity levels must be checked and charted every hour. Incubator water levels should be checked at this time.
6. Infants nursed on a heated radiant warmer need to have the ISC temperature and probe placement checked visually every fifteen minutes to ensure that the probe is attached to the skin. The ISC temperature should be recorded hourly.
7. Ventilator heater temperatures are recorded every hour.
8. Transition to Cot – refer to policy for guidelines.

Blood Pressure

1. A blood pressure is recorded on admission. It may be a cuff BP or from an arterial line.
2. Blood pressures are monitored continuously and charted hourly for patients with arterial lines.
3. Infants receiving respiratory support should have a BP done every shift or as ordered.
4. Cuff blood pressures should be taken every 15 minutes or as ordered if an infant is unstable or the blood pressure is not within normal limits.
5. Blood pressures may be taken more frequently with specific medication administrations as per policy.

6. Blood pressure monitoring for patients without arterial lines and receiving continuously infusing inotropes or afterload reducing agent;
   - Every 5 minutes with epinephrine infusion.
   - Every 10 minutes during initiation and stabilization phase of inotropes and afterload reducing agent.
   - Every 15 minutes during weaning phase of medication administration

As ordered for long-term use of continuously infusing inotropes and afterload reducing agents.

Neuro-vital Signs

1. Neuro-vital signs should be taken every 1 to 4 hours in infants with neurological compromise. These include pupil size, and reaction to light, eye opening, level of response to stimulation, and best motor response.
2. Pain and sedation scores are done on admission, near the start of each shift when appropriate developmentally and every four hours for patients who could be expected to experience pain. More frequent scoring may be indicated by condition and response of patient as directed by scale.
3. Withdrawal scores are done as ordered on at-risk patients.

F. MEASUREMENTS

1. Each infant is weighed daily. Some convalescent babies may be weighed less frequently as ordered.
2. Head circumference is done on admission, weekly on Wednesday day shift and on discharge. The values are charted and plotted on the growth graph.
3. The infant's length is measured on admission and weekly on Wednesday day shift and at discharge. The values are charted and plotted on a postnatal growth chart.

Related Documents

Adapted with permission from Stollery Children's Policy and Procedure Manual: http://insite.albertahealthservices.ca/assets/policy/clp-capital-nicu-pp-assess-basic-pol.pdf

References

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Revisions

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Signing

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