# Cardiac anomaly

**Name:** _______________________  
**Date:** _______________________  
**Date of Birth:** __________________  
**Diagnosis:** __________________

## Nursing Instruction

<table>
<thead>
<tr>
<th>NURSING ACTION</th>
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<tbody>
<tr>
<td><strong>1. OBSERVE FOR SIGNS OF CARDIAC FAILURE</strong></td>
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<tr>
<td>- Observe for: oedema (pitting); ↑ BP; tachypnoea and tachycardia; ↑ respiratory distress; ↓ urinary output</td>
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<tr>
<td>- Restrict fluids as per MO’s orders</td>
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<tr>
<td>- Administer lasix as ordered</td>
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<tr>
<td>- Keep baby calm - prevent crying or other high energy activities, e.g. breast feeding as this ↑ O2 requirements and cardiac output</td>
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</table>
| **2. MONITOR AND MAINTAIN ADEQUATE OXYGENATION**  
(N.B. Cardiac babies can tolerate lower O₂ saturation levels than normal. High saturation levels can cause duct to close) |
| - Administer 100% O₂ - cyanosis and oxygen saturation will not dramatically improve if a cardiac condition exists |
| - Maintain saturation levels as ordered by cardiologist |
| - Measure O₂ saturation and blood gas from right radial (pre-ductal) and left radial/umbilical arterial line (post-ductal), to observe for shunting |
| - Administer prostins promptly as ordered in order to maintain ductal patency and thereby oxygenation |

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<tr>
<td><strong>3. MONITOR CARDIAC READINGS</strong></td>
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<tr>
<td>- Place baby on cardiac monitor and observe and report any abnormal tracing</td>
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<tr>
<td>- Perform an ECG with V4R</td>
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<tr>
<td>- Do BP readings on all four limbs to rule out co-arctation of the aorta</td>
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<tr>
<td>- Monitor and support baby during echocardiogram or any other investigations</td>
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<tr>
<td><strong>4. ADMINISTER MEDICATIONS AS ORDERED</strong></td>
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</table>
| 1. **Indocid** (to close a PDA)  
  - ensure correct dose  
  - check U+E & FBC before commencing - do not give if platelets low  
  - observe urinary output and SG  
  - observe for GIT bleeding |
| 2. **Prostaglandin** (to open a PDA)  
  - ensure correct dose and administer promptly as ordered e.g. ½ hrly – 1 hourly  
  - dissolve tablet in sterile water and administer orally  
  - keep in fridge |

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<tr>
<td><strong>5. TRANSFER TO CARDIAC REFERRAL HOSPITAL (if required)</strong></td>
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<tr>
<td>- Stabilize baby before transfer</td>
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<tr>
<td>- Ensure adequate prostin administration during transfer</td>
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<tr>
<td>- Ensure parents are informed and accompany baby if possible</td>
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<tbody>
<tr>
<td><strong>6. MAINTAIN PARENTAL SUPPORT</strong></td>
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<tr>
<td>- Inform, support and reassure parents at all times</td>
</tr>
<tr>
<td>- Prior to discharge ensure parents are educated and confident about administration of cardiac meds, complications that may arise, support systems and follow-up appointments</td>
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# Cleft palate

**Name:** ________________________  
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<th><strong>NURSING INSTRUCTION</strong></th>
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<tr>
<td><strong>1. PREVENT CHOKING AND ASPIRATION PNEUMONIA</strong></td>
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</table>
- Nurse in semi-Fowlers position  
- Suction airways as needed  
- Give nasogastric feeds until oral feeding has been established  
- If respiratory distress occurs:  
  - maintain adequate oxygenation (see Neonate Care Plan)  
  - chest x-ray on MO’s orders to diagnose pneumonia  
  - administer antibiotics as ordered |
| **2. ESTABLISH ORAL FEEDS** |  
- Use cleft palate teat or cup feeding if breast feeding cannot be established  
- Refer to physiotherapist for exercises to assist with feeding. Ensure mother is educated and involved as well  
- Ensure thorough and frequent winding to prevent vomiting and aspiration due to increased gulping of air  
- On MO’s orders refer to dentist/orthodontist for fitting of mouth plate to aid with feeding prior to reconstructive surgery |
| **3. OBSERVE FOR OTHER CONGENITAL ABNORMALITIES** |  
- Perform a thorough initial examination to detect any other obvious abnormalities  
- Assist MO with any investigations to detect other abnormalities |
| **4. SUPPORT AND REASSURE PARENTS** |  
- Prepare parents sensitively for first view of baby. If possible show photographs of pre- and post-reconstruction  
- Explain the genetic implications and the importance of genetic counselling and follow up prior to having further children  
- Refer to genetic counsellor and cleft palate support if possible  
- Allow parents to grieve the loss of an anticipated normal baby  
- Prepare parents to care for the baby at home  
- Inform parents of follow up appointments and of when reconstructive surgery will be performed |
## GIT abnormality

**Name:** _______________________  
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| **1. DIAPHRAGMATIC HERNIA** | ▪ This is a surgical emergency!  
▪ Do not ambubag via face mask  
▪ Intubate if required in order to maintain O₂ saturation and assist respiration  
▪ Ensure bowel is decompressed by inserting size 8 NGT and place on low continuous suction  
▪ Keep nil per mouth. Erect IV line  
▪ Prepare for surgery or transfer  
▪ See Neonate Care Plan |
| **2. GASTROSCHISIS** | ▪ This is a surgical emergency!  
▪ Prevent and treat: shock, hypothermia and dehydration  
▪ “Double bag” lesion (i.e. tie one sterile plastic bag over legs and under umbilicus, and place a second sterile bag over the first bag and tie above lesion)  
▪ Handle bowel as little as possible  
▪ Insert size 8 NGT and place on free drainage. Keep nil per mouth. Erect IV line  
▪ Prepare for surgery or transfer |
| **3. OMental COELE** | ▪ If ruptured treat, as above  
▪ If contained, cover lesion with cling wrap  
▪ Insert size 8 NGT and place on free drainage. Keep nil per mouth. Erect IV line  
▪ Examine carefully for other congenital abnormalities  
▪ Prepare for surgery or transfer |
| **4. OBSTUCTION (e.g. atresia or volvulus)** | ▪ Be alert to early warning signs, e.g. polyhydramnios, bile stained aspirates, abdominal distension or failure to pass meconium  
▪ Keep nil per mouth. Erect IV line  
▪ Insert size 8 NGT and place on free drainage. Aspirate regularly to prevent air or fluid distension and perforation  
▪ Obtain abdominal and lateral x-rays as ordered  
▪ Prepare for and assist with barium swallow as ordered  
▪ Monitor abdominal girth 6 hrly  
▪ Prepare for surgery or transfer |

Last modified: 26 June 2007  
For review: 2009
## Hypoxic ischaemic encephalopathy (HIE)

**Name:** _______________________  
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**Diagnosis:** __________________

### NURSING INSTRUCTION  
### NURSING ACTION

1. **PREVENT AND CONTROL SEIZURES**  
   - Observe for mouthing; fisting; cycling; posturing; abnormal eye movements; apnoea; tonic/clonic seizures; ↓ oxygen saturation and bradycardia. These may only become evident after 24 hrs as the brain swells  
   - Hold limb - if it is a seizure the jerking will continue  
   - Check dextrostix - may be jittery due to hyper/hypoglycaemia  
   - Record and report the nature, length and frequency of seizures and interventions, e.g. medications  
   - ↓ sensory stimulation to prevent initiating seizures  
   - Administer medication promptly as ordered

2. **OBSERVE FOR RESPIRATORY/CARDIAC DEPRESSION/COMPROMISE**  
   - Monitor on a full patient monitor  
   - Observe for signs of meconium aspiration, e.g. barrel chest, severe recession, “flip - flopping” of sats due to shunting and possible pulmonary hypertension  
   - Administer O₂ in order to maintain saturation > 87% and <97%  
   - Maintain a patent airway  
   - Stimulate baby if apnoeic by rubbing heels, chest or back. Do not startle baby by hitting incubator  
   - Check resuscitation status of baby

3. **MONITOR GIT FUNCTION**  
   - Monitor colour and amount of gastric aspirates  
   - Observe for bowel sounds and passage of stools  
   - Note any abdominal distension  
   - Do not feed until gastric functioning is confirmed  
   - Use physiotherapist to assist with exercises to improve suck and swallow as this may be weak

4. **MONITOR RENAL FUNCTION**  
   - Apply paediatric urine bag  
   - Strict monitoring of urinary output and 4hrly urine dipstix  
   - Record and report any abnormality, e.g. blood and protein which may indicate hypoxic damage to the kidney

5. **MONITOR CNS FUNCTION**  
   - Monitor any seizure activity - see above  
   - Observe for unstable temperatures or respiration  
   - Monitor reflexes, e.g. Moro and suck  
   - Perform HIE score daily to monitor progression of condition

6. **MAINTAIN PARENTAL SUPPORT**  
   - Openly and honestly discuss baby’s condition and prognosis  
   - Allow parents to express emotions  
   - Involve parents in decision making  
   - Refer to social worker re- grants, support groups etc.
### Infant of diabetic mother (IDM)

**Name:** _______________________  
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| **1. MONITOR AND MAINTAIN GLUCOSE LEVELS** | ▪ Check dextrostix on arrival - thereafter according to dextrose standing order  
▪ Observe for hypoglycaemia due to ↑ insulin levels |
| **2. OBSERVE FOR SIGNS OF PREMATURITY** | ▪ Although baby may be large he/she may be premature and have complications of prematurity (see Premature Infant Care Plan) |
| **3. OBSERVE FOR SIGNS OF BIRTH INJURY** (due to baby’s large size and thus cephalopelvic disproportion) | ▪ Observe for signs of cephalohaematoma (does not cross the suture lines) or subaponeurotic haemorrhage; bruising at the back of the head (base of hair line); a Moro that goes straight forward; or irritability  
▪ Fractured clavicles - decreased movement of one arm, one sided or incomplete Moro |
| **4. OBSERVE FOR JAUNDICE** (due to haemolysis secondary to cephalohaematoma/polycythaemia) | ▪ Do a “flash” and TSB if baby appears jaundiced (see Jaundice Care Plan) |
| **5. OBSERVE FOR POLYCYTHEMIA** | ▪ Observe for and report any redness or plethoric appearance  
▪ Monitor haemoglobin |
| **6. OBSERVE FOR BOWEL OBSTRUCTION** (most common is duodenal atresia) | ▪ Observe that anus is patent and baby has passed stool  
▪ Observe for and report signs of distension, vomiting, or bile stained aspirates  
▪ Insert size 8 NGT and aspirate hourly if distension present  
▪ See GIT Abnormality Care Plan |
| **7. OBSERVE FOR SIGNS OF CARDIAC FAILURE** (secondary to hypertrophic obstructive cardiac disease) | ▪ Listen for cardiac murmur  
▪ Observe for and report cardiomegaly (on x-ray) and hepatomegaly (liver palpable below rib border)  
▪ Observe for and report tachycardia and tachypnoea  
▪ See Cardiac Anomaly Care Plan |
| **8. OBSERVE FOR SIGNS OF RESPIRATORY DISTRESS** (possibly due to hyaline membrane disease) | ▪ Observe for and report apnoea, recession, grunting, nasal flaring, tachypnoea or cyanosis  
▪ Administer O₂ in order to maintain saturations 88 - 95%  
▪ See Neonate Care Plan |
| **9. MAINTAIN FLUIDS AND NUTRITION** | ▪ Baby may be put to breast if no complications evident. Erect IV line if required  
▪ See Neonate Care Plan |
## Jaundice

| Name: _______________________ | Date: ______________________ |
| Date of Birth: __________________ | Diagnosis: __________________ |

### NURSING INSTRUCTION

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<tbody>
<tr>
<td><strong>1. PREVENT DEHYDRATION</strong></td>
</tr>
<tr>
<td>• Encourage fluids! Increase daily fluid requirements by 30ml/kg/day</td>
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<tr>
<td>• Ensure babies are fed 3 hrly as ordered</td>
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<tr>
<td>• Observe: skin turgor, perfusion, urine SG, fontanelles and activity</td>
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<tr>
<td>• Report any changes in the above</td>
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<tr>
<td>• Give 5% dextrose water if blood glucose is dropping and urine SG &gt; 1010</td>
</tr>
<tr>
<td><strong>2. MONITOR ELIMINATION</strong></td>
</tr>
<tr>
<td>• Observe for diarrhoea. Increase fluid intake if necessary</td>
</tr>
<tr>
<td>• Ensure baby is passing good amounts of urine - at least one wet nappy per feed. Monitor dipstix 6hrly</td>
</tr>
<tr>
<td><strong>3. OBSERVE FOR SIGNS OF KERNICTERUS</strong></td>
</tr>
<tr>
<td>• Hypotonia, lethargy, ↓ sucking, abnormal Moro, irritability, opisthotonos</td>
</tr>
<tr>
<td>• Report any abnormalities immediately</td>
</tr>
<tr>
<td><strong>4. ENSURE EFFECTIVENESS OF PHOTOTHERAPY</strong></td>
</tr>
<tr>
<td>• Remove all blankets, clothing and nappy</td>
</tr>
<tr>
<td>• Ensure baby is turned 3 hrly. Remove from lights only for breast feeding and as briefly as possible</td>
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<tr>
<td>• Ensure lights ±35cm above baby and have &lt; 1000 hrs operating time</td>
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<tr>
<td>• Ensure baby is only removed from lights to feed</td>
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<tr>
<td>• Use a biliblanket (if available) for double lights</td>
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<tr>
<td>• Turn lights off when taking “flash” or TSB</td>
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<tr>
<td><strong>5. PREVENT EYE DAMAGE</strong></td>
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<tr>
<td>• Clean eyes with saline 3hrly</td>
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<tr>
<td>• Protect with eye shield (ensure this does not obstruct the nose or mouth)</td>
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<tr>
<td><strong>6. ASSIST WITH EXCHANGE TRANFUSION</strong></td>
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<tr>
<td>• See &quot;Neonatal Jaundice&quot; guideline</td>
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<tr>
<td>• If TSB is high, perform exchange if:</td>
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<tr>
<td>- haemoglobin &lt; 10gm% during (first 12 hrs)</td>
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<tr>
<td>- rate of bilirubin rise &gt;17mmol/l/hr (12-24 hrs)</td>
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<tr>
<td>- TSB &gt; cut off on chart (&gt;24 hrs)</td>
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<tr>
<td><strong>7. PROMOTE BONDING AND REDUCE PARENTAL ANXIETY</strong></td>
</tr>
<tr>
<td>• Explain condition and reassure that it is common and not usually serious</td>
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<tr>
<td>• Limit separation. If possible nurse baby with mother</td>
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<tr>
<td>• Encourage parental involvement</td>
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Necrotising Enterocolitis (NEC)

Name: _______________________             Date: ______________________
Date of Birth: __________________             Diagnosis: __________________

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<tr>
<th>NURSING INSTRUCTION</th>
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| 1. MONITOR ABDOMINAL DISTENSION AND PREVENT PERFORATION | Keep baby nil per mouth  
Pass size 8 NGT and place on free drainage  
Aspirate NGT hourly and observe for air, blood and bile  
Monitor abdominal girth daily |

| 2. MAINTAIN ADEQUATE HYDRATION AND NUTRITION | Keep baby nil per mouth for ± 10 days as ordered  
Administer total parenteral nutrition (TPN) as ordered. Observe for:  
- hypo/hyperglycaemia - check dextrostix 6-12 hrly  
- oedema due to ↓ protein  
- jaundice due to cholestasis  
- electrolyte imbalances  
- dry skin (possible zinc deficiency)  
- cardiac / respiratory complications due to fatty deposits  
- infiltration / phlebitis at IV site  
Ensure adequate daily fluid (150 -180ml /kg) and caloric (120 Kcal/kg) provision (see Neonate Care Plan) |

| 3. MONITOR ELIMINATION | Ensure adequate urinary output (1ml/kg/hr). Monitor urine dipstix 4-6hrly. Use catheter, urine bag or weigh nappies  
Monitor stools: frequency; consistency; colour; odour and amount |

| 4. MONITOR VITAL SIGNS | Observe for signs of anaemia and shock. Condition can deteriorate extremely quickly  
Monitor: 3 hrly temp; pulse; respiration; BP; oxygen saturation; perfusion; colour and activity  
Administer FDP and/or inotropes as ordered for hypotension  
Check haemoglobin at least weekly |

| 5. OBSERVE FOR AND TREAT PAIN | Use minimal handling and nesting technique to provide comfort. Shield from light and sound. Use containment and sucking as comfort measures  
Observe for: crying (esp. when handled and does not settle easily); ↑ pulse / respiratory rate / BP  
Administer analgesia as prescribed |

| 6. PREPARE FOR SURGERY OR TRANSFER | Ensure MO obtains informed consent from parents  
Prepare baby for surgery as ordered by anaesthetist and stabilize baby prior to transfer |

| 7. SUPPORT AND REASSURE PARENTS | Explain possible causes and pathophysiology of condition and the short / long term prognosis  
Prior to discharge ensure parents are educated and confident in feeding; complications that may arise, support systems and follow up appointments |
# Nursing Care Plan: Neonate

**Name:** ________________________  
**Date:** ________________________  
**Date of Birth:** __________________  
**Diagnosis:** ____________________

## Nursing Instruction

### 1. CHECK BABY’S SAFETY
- See: “Basic care of neonate” protocol

### 2. OBSERVE BABY’S CONDITION
- Initially - first examination and assessment
- Hourly until stable, then 3 hrly
- Monitor:
  - axillary temperature (36.5-37°C)
  - apex (120-160 bpm)
  - respiratory rate (40-60 bpm)
  - colour (pink, jaundiced, cyanosed, pale, mottled, plethoric etc.)
  - O₂ saturation (88-94 %)
  - BP (mean > gestational age)
  - activity (jittery, lethargic, active, seizures etc.)
  - signs of respiratory distress (apnoea, cyanosis, recession, grunting, nasal flaring, tachypnoea, tachy/bradycardia )

### 3. PREVENT INFECTION
- See “Infection control” protocol

### 4. MAINTAIN SKIN CARE & HYGIENE
- See “Skin care & hygiene” protocol

### 5. CONTROL TEMPERATURE
- Prevent conductive, convective, evaporative & radiant heat loss
- Maintain neutral thermal environment
- Cover with bubble plastic if on an open incubator. Use cap and booties
- If in a cot, apply hot pad if temperature < 36.5°C. Remove if > 36.5°C N.B. Monitor temperature hourly
- Monitor and control incubator temperature according to baby’s temperature
- Warm hypothermic baby slowly - 1°C /hr
- Tepid sponge if temperature >37.6°C
- Maintain blood sugar levels

### 6. PREVENT HYPO/HYPERGLYCAEMIA
- i.e. normal blood glucose: 2.5 - 7.0 mmol/l
- Monitor dextrostix on admission and then as per “Neonatal Hypoglycaemia” guideline
- Ensure adequate oral/ intravenous administration of glucose, i.e. 6-8 mg/kg/min
- Observe for jitteriness; lethargy or hypothermia

### 7. MONITOR GROWTH
- i.e. ± 30g/day
- Weigh daily and chart on weight chart, nursing process and fluid balance
- Monitor growth weekly (on Monday) as per percentiles on Road to Health chart
### 8. MAINTAIN ADEQUATE FLUID INTAKE AND NUTRITION

<table>
<thead>
<tr>
<th>Calories: 120 Kcal/kg/day</th>
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<tbody>
<tr>
<td>Fluids:</td>
</tr>
<tr>
<td>Day 1</td>
</tr>
<tr>
<td>60ml/kg/day</td>
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<tr>
<td>Day 2</td>
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<tr>
<td>90ml/kg/day</td>
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<tr>
<td>Day 3</td>
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<tr>
<td>120ml/kg/day</td>
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<td>Day 4, 5</td>
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<tr>
<td>150ml/kg/day</td>
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<tr>
<td>Day 6+</td>
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<tr>
<td>180ml/kg/day</td>
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- Monitor BP, perfusion, urinary output and SG for signs of dehydration
- Give extra 30ml/kg/day if under phototherapy/radiant warmer
- Monitor weight gain daily
- Ensure patency of IV line. Set pressure alarm low on infusion pump
- Monitor tolerance of feeds. Aspirate NGT prior to feeds and return. Omit feed if aspirate > 50% of previous feed
- Observe for gagging, vomiting, abdominal distension, bile stained aspirates or bloody stools
- Always feed prone and do not handle baby after feeds to prevent vomiting and aspiration
- Establish maternal breast milk production immediately and breast feeding after 34 weeks gestation
- Prevent mixed feeding. Formula feeds may only be given after discussion with MO
- See “Establishing feeding” protocol

### 9. MAINTAIN ADEQUATE OXYGENATION

- **i.e.** O₂ saturation: 88-94%
- PAO₂: 8 - 10.5kPa
- pH: 7.35 - 7.45

- Observe for and report any signs of respiratory distress (see “Respiratory Distress” guideline)
- Ensure patent airway:
  - suction PRN - avoid vigorous suctioning which may cause vagal stimulation, leading to apnoea and bradycardia
  - extend the neck using a shoulder roll
  - use oropharyngeal airway / E.T.T as required
- Monitor O₂ concentration with oxycheck and an O₂ blender should always be used if available
- O₂ should be humidified
- Administer O₂ via nasal CPAP with PEEP if O₂ requirements > 30% or via head box at 10L/min
- Administer O₂ via nasal prongs at 1L/min if requiring < 30%FIO₂
- Ambubag at 5 l/min and current O₂ % if apnoeic and not responding to stimulation
- If on O₂ do not allow saturations > 95% as this can cause retinopathy of prematurity
- Ventilate on MO’s orders if blood gases are unsatisfactory

### 10. MONITOR ELIMINATION

- Ensure baby passes at least 1ml/kg/hr or has one wet nappy per feed
- Check dipstix 4-6 hrly
- Ensure baby passes stool at least once a day (check colour, amount & consistency)

### 11. PREVENT ANAEMIA

- Prevent active bleeding, e.g. from cord/puncture sites. Contact MO if bleeding is persistent
- Give 1mg Konakion® (Vit K) at birth to prevent neonatal haemorrhage
- Apply ligature to bleeding cord. Apply Surgicel® / por 8 if bleeding persists and notify MO immediately
- Contact MO for: bloody stools, pulmonary/nasal haemorrhage or other unexplained bleeding

### 12. MONITOR AND CONTROL PAIN

- Observe for restlessness, grimacing, crying, tachycardia, ↑ BP which may be signs of pain
- Administer sucrose as per standing order prior to minor invasive procedures
- Provide non-nutritive sucking as comfort measure for non-breastfeeding babies
- Swaddle and contain any distressed baby

### 13. PROVIDE DEVELOPMENTALLY SUPPORTIVE CARE

- See “Developmental care” protocol

### 14. ADMINISTER MEDICATION AS PRESCRIBED

- See “Medication administration” protocol
| 15. SUPPORT, REASSURE & EDUCATE PARENTS AND PROMOTE BONDING | - See “Basic care of neonate” protocol  
- Give welcome and discharge pamphlets  
- Encourage kangaroo care and lodging / rooming-in  
- Normalise baby, as soon as possible, by dressing, removing probes etc.  
- Involve parents in care and decision making  
- Orientate parents to unit and explain their role  
- Carefully and honestly explain baby’s condition and prognosis  
- Give appropriate health education |
|---|---|
| 16. MAINTAIN ACCURATE CLINICAL RECORDS | - Report on baby’s condition at least once per shift  
- Record and report any abnormality or change in condition  
- Record MO’s orders and any action or intervention taken  
- Maintain accurate fluid balance chart  
- Ensure all signatures and qualifications are legible  
- Do regular audits of files |
| 17. DISCHARGE BABY | A baby may be transferred to referral/district hospital when condition is stable and can be managed at that level, i.e. > 1700g, sucking exclusively from breast and gaining weight consistently  
A. Check baby  
- Condition stable - discharged by MO  
- First examination completed  
- BCG and Polio immunizations given and recorded  
B. Check mother  
- Ensure mother has a thorough understanding of baby’s condition and follow up requirements  
- TTO’s given and explained  
- Road to Health chart given and mother told to attend well baby clinic in one week  
- POPD booking made and card given to mother (if required)  
- Discharge pamphlet given  
C. Check notes  
- Each category, e.g. fluid balance, observations, to be stapled separately, in order, from admission. Details of discharge, e.g. clinic appointment, TTO’s, discharge advice, immunizations and general condition recorded in nursing process. Stickers on each page  
- Ensure MO has signed baby out on Newborn Care Record  
- Fill in discharge details below first examination on Newborn Care Record  
- Complete blue discharge form  
D. Complete discharge  
- N.B. Write discharge/transfer date in admission book!  
- Place blue discharge form in discharge folder  
- Brown folder placed in “Out” box |
# Post-operative care

**Name:** _______________________

**Date:** _______________________

**Date of Birth:** __________________

**Diagnosis:** __________________

## Nursing Instructions

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<tr>
<th>Nursing Instruction</th>
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| **1. Observe for signs of shock** <br>(↓BP, tachycardia, pallor etc.) | - Place on ICU crib on patient monitor  
- Set alarms accurately  
- Set BP to record every 15 minutes or if arterial line present use invasive BP monitoring  
- Record observations hourly until stable or baby is removed from ventilator, then 2hrly x2, then 3hrly  
- Record and report any abnormality |
| **2. Observe for and manage pain** | - Observe for restlessness, grimacing, crying, tachycardia, ↑BP  
- Ensure analgesia is ordered and administered as required  
- If epidural is *in situ*, monitor effectiveness and ensure correct dose and infusion rate is administered  
- Handle as little as possible. Nurse in quiet and darkened environment. Use “baby warmer” if available or “nesting” technique to provide comfort  
- Provide non-nutritive sucking with sucrose as a comfort and pain control measure if not contra-indicated |
| **3. Monitor wound** | - Observe wound drainage for colour, amount and consistency  
- Observe for excessive bleeding. Monitor haemoglobin  
- Observe for any bruising  
- Monitor any changes in abdominal girth following abdominal surgery  
- Report any abnormality immediately to the surgeons  
- Consult stomatherapist for advice on stoma dressing. Change if loose / soiled or as ordered |
| **4. Maintain temperature** | - Ensure baby is nursed under a radiant warmer or in an incubator  
- Cover head with cap and cover baby with bubble plastic (not blanket) to aid visualization of wound  
- See Neonate Care Plan |
| **5. Monitor fluid balance and electrolytes** | - Monitor and replace any fluid output, e.g. wound drainage as ordered  
- Monitor urine output and SG  
- Monitor urea and electrolyte levels as ordered  
- Administer fluids as ordered |
| **6. Support and reassure parents** | - Explain baby’s condition carefully. Explain and discuss further management. Orientate parents to equipment and surroundings  
- Allow parents to express emotions freely  
- Allow parents to spend time alone with their baby |
## Premature infant

<table>
<thead>
<tr>
<th>NURSING INSTRUCTION</th>
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<tbody>
<tr>
<td><strong>1. PROVIDE ROUTINE CARE</strong></td>
<td>See Neonate Care Plan</td>
</tr>
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</table>
| **2. MONITOR AND CONTROL APNOEA** (i.e. cessation of breathing for >20 sec accompanied by a change in colour, bradycardia or drop in O₂ saturation) | Use sats/apnoea monitor on all prems  
Prevent causes of apnoea, e.g. sepsis; hypo/hyperthermia; hypo/hyperglycaemia; electrolyte imbalances; seizures etc.  
Administer aminophylline/caffeine on MO's orders, to prevent apnoea of prematurity  
Nurse slightly cold (35.5 - 36.5°C) on MO's orders |
| **3. PREVENT ANAEMIA** | Prevent active bleeding, e.g. from cord / puncture sites  
Give Konakion® (Vitamin K) at birth to prevent neonatal haemorrhage  
Observe for: pallor; weak pulses; lethargy; tachycardia; hypotension; poor weight gain and respiratory distress  
Prevent infection |
| **4. PREVENT INTRAVENTRICULAR HAEMORRHAGE** | Administer Konakion® at birth  
Handle minimally, i.e. 6-8 hrly care especially if < 1200g  
Do not raise lower torso above head level  
Maintain stable temperature, O₂ saturations and blood pressure  
Avoid any form of startle or shock |
| **5. OBSERVE FOR AND TREAT PDA (patent ductus arteriosus)** | Observe for bounding pulses, cardiac murmur or poor weight gain  
Restrict fluids on MO’s orders  
Administer hydrochlorthiazide or Indocid® as ordered |
| **6. OBSERVE FOR SEIZURES** | Maybe subtle or clearly visible: staring, fisting, cycling, mouthing, apnoea, eye tremors, jitteriness, tonic/clonic seizures  
Eliminate hyper/hypothermia and hyper/hypoglycaemia as causes  
A seizure is occurring if held limb continues to jerk  
Administer Phenobarbitone®, Rivotril® or Domicum® as per MO’s orders |
# Pre-operative care

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| **1. STABILISE VITAL SIGNS** | • Administer O₂ as required to maintain saturation > 90%
• Maintain a patent airway. Suction airways if required
• Nurse in a neutral thermal environment in order to maintain temperature 36° - 37°C
• Maintain mean BP ± 2 > gestational age
• Maintain apex beat between 120 -160bpm. Tachycardia may indicate stress, pain, shock or hyperthermia
• Obtain blood gas sample. Check for and treat any respiratory/metabolic acidosis/alkalosis as ordered
• Maintain blood glucose > 2.5mmol/l. Administer glucose at 6-8mg/kg/min |
| **2. PREVENT ANAEMIA** | • Obtain FBC and cross match as ordered
• Transfuse as ordered
• Observe for signs of excessive bleeding, e.g. puncture sites, nasopharynx or ET aspirates (may indicate a low platelet count or clotting problem) |
| **3. MAINTAIN FLUID BALANCE** | • Administer daily fluid requirements (see Neonate Care Plan)
• Replace extra fluid losses, e.g. vomitus, gastric aspirates and insensible fluid loss
• Check urine dipstick for SG, blood and leucocytes
• Obtain U+E as ordered |
| **4. ENSURE CONSENT IS OBTAINED** | • Ensure surgeons adequately inform parents (use translator if required) and obtain consent for surgery
• The medical superintendent can consent for emergency surgery where a parent is unavailable |
| **5. PREPARE FOR SURGERY** | • Keep nil per mouth as ordered
• Do skin prep if ordered or wash baby as condition permits
• Complete anaesthetic form
• Ensure baby is correctly identified
• Administer premed as ordered
• Ensure an ICU crib and ventilator are available if needed post-operatively
• Prepare ICU crib for transport: clean linen, oxygen cylinder and ambubag, portable drip stand, baby warmer, VP line and jejunal tube if required |
| **6. PREPARE FOR TRANSFER TO REFERRAL HOSPITAL (if required)** | • Complete transfer documents
• Notify receiving unit
• Organise ambulance transport and transport nurse if required |
| **7. MAINTEN PARENTAL SUPPORT** | • Inform, support and reassure parents at all times in a calm, patient and empathetic manner
• Allow parents to accompany baby en route to theatre |
# Ventilated babies

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| 1. MAINTAIN A PATENT AIRWAY | ▪ Place a rolled sheet under the shoulders to extend the neck  
▪ Keep the head just off-centre (not to one side), to prevent kinking of the tube.  
▪ Ensure the ET tube and circuit are adequately supported and secured to prevent kinking or dislodging  
▪ Suction PRN but at least 6hrly. Be guided by ↓ O₂ saturation, restlessness, ↓ air entry and ↑ resistance (RPK)  
▪ Insert a nasogastric tube on free drainage to prevent accumulation of air and fluids which may splint the diaphragm and lead to vomiting and aspiration. Aspirate NGT 4hrly and note amount, colour and consistency |
| 2. CHECK AIR ENTRY | ▪ Monitor at least hourly  
▪ Ensure air entry is equal bilaterally  
▪ Observe chest movement  
▪ Listen for ↓ air entry, crackles, wheezes, air leaks |
| 3. ENSURE E.T TUBE IS SECURELY STRAPPED | ▪ Strap according to unit policy. If there is any movement, re-strap  
▪ Ensure size of tube and level of insertion are clearly recorded in nursing process and on card on incubator  
▪ Record re-strap on intubation chart |
| 4. ENSURE BABY FEELS SECURE AND COMFORTABLE | ▪ All babies should be swaddled/nestled (with a blanket curled around them to define their limits)  
▪ Give developmentally supportive care including:  
  - minimal handling (especially if < 1500g) i.e. 6hrly care unless otherwise indicated  
  - minimise environmental stimuli e.g. light and sound  
  - group interventions / procedures  
  - early and appropriate management of pain e.g. sucrose dummy, containment and/or morphine  
  - monitor baby’s cues  
  - limited number of caregivers and involve mother in care |
| 5. ENSURE BABY IS WELL SEDATED (breathing must synchronise with the ventilator) | ▪ A continuous morphine infusion is the sedation of choice. Observe regularly for signs of pain and distress (e.g. crying, restlessness, ↓ oxygen saturation, tachycardia, hypertension). Administer bolus prior to any invasive procedure as ordered  
▪ Administer Dormicium sedation as ordered (may even be given hourly if necessary to achieve adequate sedation)  
▪ Ensure administered and wasted Dormicium / Morphine is written up in schedule book  
▪ Administer paralysing agent (e.g. vecuronium/pancuronium) as ordered especially if baby is on high pressures or is very restless - however this is uncommon practice. Ensure sedation is administered with any paralysing agent as this will prevent anxiety  
▪ Only sedate once air entry and ventilator settings have been checked. Restlessness may be due to ↓ O₂. Check for a wet nappy. |
| 6. OBSERVE FOR SIGNS OF SHOCK (possibly due to IVH, pneumothorax, acute blood loss) | ▪ Observe: ↓ BP, ↓ peripheral perfusion, ↓ oxygen saturation, restlessness and pallor  
▪ Record and report any abnormalities immediately |
### 7. MAINTAIN ACCURATE OBSERVATIONS
(See newborn care plan)
- Monitor: temp, pulse, respiration, oxygen saturation, colour, air entry, BP and ventilator settings at least hourly
- Ensure baby is monitored on a comprehensive patient monitor e.g. Dash
- Consider end tidal CO\textsubscript{2} monitoring for close monitoring of CO\textsubscript{2} to ↓ need for frequent blood gasses
- Invasive BP monitoring is recommended if BP is unstable e.g. persistent foetal circulation on inotropic support or post surgery

### 8. OBSERVE FOR SIGNS OF PNEUMOTHORAX
- Observe for:
  - sudden/gradual deterioration with little response to ↑ O\textsubscript{2} and suctioning
  - ↓ air entry on one side (usually right side) and/or asymmetrical chest movement
  - restlessness. pallor
  - ↓ BP, ↓ oxygen saturation
  - abdominal distension
- Record and report any abnormality immediately. This is an emergency. A chest drain must be inserted by an MO
- If no MO available - a butterfly needle (under water) can be inserted in the 2nd intercostal space to drain the air until a chest drain can be inserted

### 9. ADMINISTER SURFACTANT AS ORDERED
- Administer as per unit policy
- Monitor BP closely. May drop rapidly as intra thoracic press ↓
- ↓ inspiratory pressure as compliance improves

### 10. MONITOR BLOOD GASES
- Monitor depending on baby’s condition. Minimum :12 hrly
- Observe for respiratory/metabolic acidosis
- Observe for hyocapnoea due to over ventilation

### 11. MONITOR ALARMS
- If ventilator is alaring, check if it is cycling and check alarm settings
- If ventilator is not cycling: DO NOT PANIC!!
- Ask someone to ambubag the baby. Begin at the beginning :
  - is the vent plugged in and on?
  - are the air and oxygen hoses plugged in?
  - check all connections, temperature and pressure lines
  - check the block - diaphragm securely screwed with no cracks
  - if you cannot locate the fault, change the ventilator

### 12. CHANGE VENTILATOR CIRCUIT
- This is done every 72 hours on a Monday and Thursday
- Record on intubation chart

### 13. COMMENCE WEANING
(if baby’s condition stable with a satisfactory blood gas)
- Monitor CO\textsubscript{2} levels and pH for signs of respiratory acidosis. If baby retaining CO\textsubscript{2} do not continue weaning
- Baby can be weaned in any mode. Alternate weaning O\textsubscript{2}, rate and pressure. Decrease O\textsubscript{2} first, then pressure
- When weaning O\textsubscript{2}, decrease by 5 an hour (unless oxygen saturation remain above 95%)
- When weaning rate, maintain inspiratory time between 0.4 and 0.6 sec. In all modes except SIMV, the rate is a back up rate and every breath will be supported, therefore weaning pressure is more effective. Judge regularity of respiration with low back up rate e.g. 15 to ensure readiness for extubation
- Do not adjust pressure without MO’s orders

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Last modified: 26 June 2007

For review: 2009