**MEDICAL DIRECTIVE**
**Term Newborn AT RISK for Hypoglycemia**

**Approved by/Date: Medical Advisory Committee – April 24, 2012**

**Authorizing physician(s)**
Hospitalist or Paediatrician

**Authorized to who**
All RN's working within the Women's and Children's Program at Lakeridge Health Oshawa with the required knowledge skill and judgment.

**Patient Description / Population**

This Medical Directive applies to the well newborn admitted to Mother Baby Unit or Birthing Suite who is:

- Less than 37 weeks gestation **OR**
- Less than 2500 grams in weight **OR**
- More than 4000 grams in weight **OR**
- Born of a mother with diabetes (including gestational)
- **OR**
- Born of a mother with pre-eclampsia (current antihypertensive therapy)
  **OR**
- Required positive pressure ventilation at birth

*INFANT AT RISK FOR HYPOGLYCEMIA BECAUSE*:_____

**Medical Directive Description/Physician's Order**

1. Vitamin K 1 mg intramuscularly once only to the vastus lateralis muscle of the thigh.
2. Erythromycin 0.5% ophthalmic ointment to each eye.
3. Newborn screening to be completed prior to discharge. If infant is discharged before 24 hours of age, arrangements to be made for the newborn screening to be completed prior to 5 days of age.

**Vital Signs:**

4. Temperature, apical rate and respiratory assessment at birth then q 1 hour x 2, then q 8 hours until discharge.
5. Infant weight once daily (24 hours from birth time) and within 8 hours of discharge. Notify prescriber if weight loss greater than 7% of birth weight .

**Nutrition:**

6. Initial feed within 30-60 minutes of birth if breastfeeding.
7. Encourage breastfeeding every 2-3 hours. If not breastfeeding provide formula every 3-4 hours.
8. If breastfeeding, no supplementation unless medically indicated.

**Hypoglycemia Screening:**
**Notify Paediatrician if at any time blood glucose is equal to or less than 1.8mmol/L**

9. **Symptomatic infants (displaying excessive jitteriness or tremors):**
   - Blood glucose screening by glucometer
   - If less than 2.6mmol/L, breastfeed and/or supplement with expressed breastmilk or formula(with parental permission)
   - Repeat blood glucose screening **60 minutes** after feed
   - If blood glucose is less than 2.6mmol/L **notify Paediatrician on call** and transfer infant to NICU for assessment
   - If infant is asymptomatic and blood glucose is greater than or equal to 2.6mmol/L follow asymptomatic screening

10. **Asymptomatic infants**
   - Blood glucose screening by glucometer, 2 hrs after **initial** feed and every 3-4 hours before feeds
     i. If blood glucose is 2 mmol/L or less **at 2 hrs of age**
     **OR**
     ii. If blood glucose is less than 2.6 mmol/L at subsequent checks
   - Breastfeed and/or supplement with expressed breastmilk or formula (with parental permission)
   - Repeat blood glucose screening in **60 minutes**
   - If Blood glucose remains less than 2.6 mmol/L feed infant a second time
   - Repeat blood glucose screening **60 minutes** after second feed
   - If blood glucose remains less than 2.6 mmol/L after the second feed **notify Paediatrician on call and transfer to NICU**
   - For all infants at risk **except preterm and small for gestational age (SGA)** discontinue blood glucose monitoring at 12 hours of age **if 3 consecutive** blood glucose remain at or above 2.6 mmol/L
   - For **Preterm and SGA infants** continue testing every 3-4 hours before meals for the first 24 hours. After the first 24 hours test every 6 hours until the infant is 36 hours old. Discontinue blood glucose monitoring after **36 hour of age if 3** consecutive blood glucose remain at or above 2.6 mmol/L

**Hepatitis B**

11. a) For infants of mothers identified as HBsAg positive, with documented consent for product administration:
   - Hepatitis B Immune Globulin (HBIG) 0.5 mL IM, as soon as possible, within 12 hours of birth
   - Hepatitis B vaccine 0.5 mL IM in opposite anterolateral thigh, as soon as possible within 12 hours of birth (Engerix- B 20 mcg/mL **OR** Recombivax HB 10 mcg/mL)
   - if administration is to occur greater than 12 hours after birth, give and notify MRP of delay

**Note:** For a complete vaccine series, follow-up doses should be administered at 1 month and 6 months

11. b) For infants of mothers of unknown HBsAg status, with documented consent for product administration:
    - If unavailable, obtain order for HBsAg testing, STAT
    - Administer Hepatitis B vaccine 0.5 mL IM in anterolateral thigh within 12 hours of birth. (Engerix-B 20 mcg/mL OR Recombivax HB 10 mcg/mL). If administration is to occur greater than 12 hours after birth, give and notify MRP of delay.
    - Upon receipt of **positive** HBsAG result, administer Hepatitis B Immune Globin (HBIG) IM, in opposite anterolateral thigh, as soon as possible, preferably within 48 hours. Contact MRP if greater than 7 days.

**Note**: For a complete vaccine series, follow-up doses should be administered at 1 month and 6 months

**Neonatal Jaundice**

12. All infants will have serum bilirubin prior to discharge at the same time as the newborn screening, if not required earlier because of clinical jaundice. Notify prescriber **if** measurement falls outside of expect range based on baby's weight, age and risk factors.

13. For infants jaundiced **less than 24 hours** of age:
    - Serum microbilirubin (MBR) level
    - ABO testing of cord blood (stored by lab)
    - Notify prescriber

14. For infants of mothers identified as blood type O
    - Serum microbilirubin, DAT (Coombs test) and blood type on cord blood (stored by lab)
    - Notify prescriber if any positive result or irregular antibody

**Specific conditions/circumstances that must be met before the Directive can be implemented**

- Documented maternal consent for newborn Hepatitis B Immune Globulin and Hepatitis B vaccine administration
- The administration of medications or blood products to neonates will be performed by a Registered Nurse.

**Contraindications to the implementation of the Directive**

- Newborn does not meet criteria for risk of hypoglycemia as listed above.

**Identify relevant Delegated Control Act or Added Skill associated with this Directive**

- Staff certified to perform capillary blood glucose sampling

**Documentation requirements**

*(on the physician order sheet and the health professional's documentation section)*

- Documentation on the nursing record indicating Medical Directive implementation and the criteria used to determine newborn was at risk of hypoglycemia
- Print of Medical Directive on NSR paper to enable carbon copy to be sent to laboratory/pharmacy as needed.
- Document lot number and brand of Hepatitis B vaccine on infant's MAR

**Review/Evaluation Process (how often/by who)**

- Annually by Patient Care Specialist or Patient Care Manager of the Women's and Children's program

**Related Documents**

- Hepatitis B letter to Parents
- Hepatitis B consent form
- Canadian Paediatric Society (2007) "Guidelines for Initiated Phototherapy"

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| **Developed by:** | Julie Rojas<br>Name | Patient Care Specialist<br>Position/Title | Maternal Newborn<br>Program |
| **Main Contact:** | Julie Rojas<br>Name | Patient Care Specialist<br>Position/Title | Maternal Newborn<br>Program |
| **Authorized by:** | Hospitalist or Paediatrician<br>Physicians | July-Dec 2012<br>Date | Contact Medical Affairs Office for details re authorizing physicians & original signature document. |

## Approvals and Signatures: (Original signatures document available in Medical Affairs Office)

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|---|---|---|---|
| **Department Chief:** | Dr. Sean Godfrey<br>Name | Dr. Sean Godfrey<br>Signature | Aug 23, 2012<br>Date |
| **Medical Director:** | Dr. Myles Beatty<br>Name | Dr. Myles Beatty<br>Signature | July 26, 2012<br>Date |
| **Program Director:** | Tasha Osborne<br>Name | Tasha Osborne<br>Signature | August 21, 2012<br>Date |
| **Chair of Inter-Professional Advisory Comm.:** | N/A<br>Name | N/A<br>Signature | <br>Date |
| **Chair of CNAC:** | Linda Calhoun (Interim)<br>Name | Linda Calhoun (Interim)<br>Signature | <br>Date |
| **Chair of P & T Comm:** | Dr. Monty Sandhu<br>Name | Dr. Monty Sandhu<br>Signature | <br>Date |
| **Final Approval Chair of MAC:** | Dr. Myles Beatty (Acting)<br>Name | Dr. Myles Beatty (Acting)<br>Signature | <br>Date |