

Hypoglycemia in low-risk term newborns (HG)

CANADIAN PAEDIATRIC SURVEILLANCE PROGRAM

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REPORTING INFORMATION

(To be completed by CPSP staff)

Report number: _____

Month of reporting: _____

Province: _____

Today's date: _____

**Please complete the following sections for the case identified above.
Strict confidentiality of information will be assured.**

CASE DEFINITION FOR HYPOGLYCEMIA IN LOW-RISK TERM NEWBORNS

Report any otherwise healthy neonate less than 96 hours (four days) old with **all** of the following:

- Term gestation (37–42 weeks)
- Birth weight of 2500–3999 g
- Hypoglycemia, defined as whole blood or serum glucose <2.0 mmol/L
- Hypoglycemia treated with IV dextrose

Exclusion criteria

Neonate being monitored for hypoglycemia because of known risk factors, i.e., maternal diabetes (gestational or pre-gestational), growth restriction, macrosomia or important neonatal illness

Month first seen: _____

SECTION 1 – DEMOGRAPHIC INFORMATION

A. Infant

1.1 Date of birth: ____/____/____ 1.2 Time of day: ____:____ hrs
DD MM YYYY

1.3 Sex: Male____ Female____

B. Infant's mother

1.4 Place of residence (province/territory): _____

1.5 Ethnicity: Arab____ Black____ Chinese____ Filipino____ Japanese____ Korean____ Latin American____
South Asian (e.g., Bangladeshi, Punjabi, Sri Lankan) ____ Southeast Asian (e.g., Vietnamese, Cambodian,
Malaysian, Laotian) ____ West Asian (e.g., Afghan, Assyrian, Iranian) ____ White____ First Nations____
Inuit____ Métis____ Other, specify: _____ Unknown____

SECTION 2 – FAMILY HISTORY

	Yes	No	Unknown
2.1 First-degree relative with type II diabetes? If yes , specify relation to child: _____	___	___	___
2.2 Neonatal hypoglycemia in sibling? If yes , specify cause, if known: _____	___	___	___
2.3 Sibling with seizures or developmental delay? If yes , provide details: _____	___	___	___

SECTION 3 – INFANT MEDICAL HISTORY

3.1 Singleton____ Twin____			
3.2 Gestational age at birth: _____ weeks			
3.3 Type of delivery: Vaginal ____ Elective Cesarean section ____ Emergency Cesarean section ____			
	Yes	No	Unknown
3.4 Meconium present at delivery?	___	___	___
3.5 Resuscitation required?	___	___	___
If yes , specify APGAR score at 1 minute____ 5 minutes____ 10 minutes____			

SECTION 3 – INFANT MEDICAL HISTORY (cont'd)

Yes No Unknown

- 3.6 PPV >2min or intubation _____
- 3.7 Cord gases, if available:
 cord vein: pH _____ pCO₂ _____ bicarb _____ base deficit _____
 cord artery: pH _____ pCO₂ _____ bicarb _____ base deficit _____
- 3.8 Birth weight: _____ g
- 3.9 Length: _____ cm
- 3.10 Head circumference: _____ cm
- 3.11 Feeding: Breast ___ Bottle ___ Mixed ___
- 3.12 Feeding issues prior to hypoglycemia? _____
If yes, please elaborate if possible: _____

- 3.13 Temperature less than 36.5°C in 24 hours prior to hypoglycemia?
If yes, specify the lowest recorded temperature: _____ °C axillary / rectal (circle one)
- 3.14 Did the infant have glucose measurement(s) earlier in life? _____
If yes, state why: _____
- 3.15 What prompted glucose measurement at time of hypoglycemia diagnosis? _____
- 3.16 Date of hypoglycemia: ____ / ____ / ____ Time of day: ____ : ____ hrs
 DD MM YYYY
- 3.17 At time of hypoglycemia – Weight: _____ g Temperature: _____ °C Hydration normal ___ Dehydrated ___
- 3.18 Signs and symptoms around the time of hypoglycemia (**check all that apply**):
 jitteriness___ seizure___ apnea___ cyanosis___ lethargy___ poor suck___ hypotonia___
 hypertonia___ abnormal cry___ exaggerated startle___ other, specify: _____
- 3.19 Location of birth: Hospital ___ Home ___ Birthing centre ___
- 3.20 From where did infant originate? Infant already in SCN/NICU for other reasons ___
 Transferred from post-natal ward within hospital ___ Transferred from another hospital ___
 Transferred from a birthing centre ___ Admitted from home ___

SECTION 4 – INFANT LABORATORY DATA AND IMAGING RESULTS

- 4.1 Glucose level that prompted the IV dextrose start: _____
- 4.2 Lowest blood glucose level (if lower than presenting level): _____
- 4.3 Investigations performed (**check all that apply**):
EEG ___ Visual evoked potential ___ Somatosensory EEG ___
Brain imaging, if any: U/S ___ C/T ___ MRI ___ PET ___
 Summary of the findings: _____

SECTION 5 – TREATMENT, FURTHER TESTS AND OUTCOME

- 5.1 What prompted the initiation of IV dextrose in this setting (**check all that apply**)?
 Concerning serum glucose level ___
 Concerning signs/symptoms ___
 Unsuccessful strategies to normalize glucose levels in preceding hours ___
 Other reason, specify: _____

- 5.2 Was an initial dextrose bolus given? _____
 Specify the duration of subsequent IV dextrose infusion: _____ days _____ hrs
 Time from start of IV to achieving whole blood or serum glucose level ≥2.0 was: _____ hrs
 Time from start of IV to stabilization (2 consecutive glucose values >2.6) was: _____ hrs
- 5.3 After the hypoglycemia episode, did the infant have a work-up for an underlying cause? _____

Yes No

SECTION 5 – TREATMENT, FURTHER TESTS AND OUTCOME (cont'd)

	Yes	No
5.4 Was the infant found to have an underlying diagnosis or compounding factor? Endocrine disorder? _____	_____	_____
If yes , specify: _____		
Metabolic disorder? _____	_____	_____
If yes , specify: _____		
Polycythemia? _____	_____	_____
If yes , what was highest hematocrit? _____		
Other underlying diagnosis or compounding disorder? _____	_____	_____
If yes , specify: _____		
5.5 Status at time of discharge (check all that apply):		
Well baby with no current or anticipated issues _____		
Guarded prognosis _____		
Uncertain prognosis _____		
Hearing concern _____		
Vision concern _____		
Hypertonia _____		
Hypotonia _____		
Seizures _____		
Feeding impairment _____; if so, infant requiring <i>some</i> tube feeds _____		
infant requiring <i>exclusive</i> tube feeding _____		

SECTION 6 – MOTHER’S MEDICAL HISTORY

6.1 Age at delivery (years): _____			
6.2 Gravida_____ Para_____			
6.3 Height: _____ cm	Pre-pregnancy weight: _____ kg	Pre-pregnancy BMI: _____	
6.4 Most recent available weight: _____ kg	Date: ____/____/____		
	DD MM YYYY		
6.5 Weight at 28 weeks, if available: _____ kg			
	Yes	No	Unknown
6.6 Glucose tolerance test performed?	_____	_____	_____
If yes , glucose load, if known: _____ g			
Fasting: _____ mmol/L	1-h glucose level: _____ mmol/L	2-h glucose level: _____ mmol/L	
Results: Normal _____	Abnormal _____		
6.7 Chronic hypertension predating pregnancy?	_____	_____	_____
6.8 Hypertension onset during pregnancy?	_____	_____	_____
6.9 Pre-eclamptic toxemia (PET)?	_____	_____	_____
6.10 Hemolysis, elevated liver enzymes, low platelet count (HELLP)?	_____	_____	_____
6.11 Antenatal concern re. growth, but newborn deemed not growth-restricted?	_____	_____	_____
6.12 Medications during pregnancy (check all that apply):			
β blocker_____ metformin_____	betamethasone_____	dexamethasone_____	prednisone_____ methylprednisolone_____
antibiotic_____ magnesium sulfate_____	Other medications: _____		
6.13 Placenta weight, if known: _____ g			

_____ **I agree to be contacted by the CPSP for further information.**
 _____ **I do not wish to be contacted by the CPSP for further information.**

SECTION 7 – REPORTING PHYSICIAN

First name _____ Surname _____

Address _____

City _____ Province _____ Postal code _____

Telephone number _____ Fax number _____

E-mail _____ Date completed _____

Thank you for completing this form.