**Severe iron-deficiency anemia in infants and young children (IDA)**

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

**CASE DEFINITION FOR SEVERE IRON DEFICIENCY ANEMIA IN INFANTS AND YOUNG CHILDREN**
Report all otherwise healthy infants and young children from six months to 36 months of age with severe iron-deficiency anemia defined as:

- Hemoglobin < 80g/L and low mean corpuscular volume (MCV; below normal for age),
- **plus one of the following:**
  - low ferritin
  - low iron
  - high transferrin receptor
  - high free-erythrocyte protoporphyrin
  - correction of anemia with iron therapy

**Exclusion criteria**
- Chronic disease known to be associated with anemia
- Diseases associated with malabsorption
- Conditions associated with blood loss, such as trauma, surgery, and frequent bloodletting
- Known congenital hemoglobinopathy
- Known disorders of clotting
- Blood loss due to acute or chronic disease causing gastrointestinal bleeding

**SECTION 1 – DEMOGRAPHIC INFORMATION**

<table>
<thead>
<tr>
<th>Month first seen</th>
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<td>_________________</td>
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</tbody>
</table>

1.1 Date of diagnosis of severe IDA: ____ / ____ / ________
   DD   MM   YYYY

1.2 Date of birth: ____ / ____ / ________
   1.3 Sex: Male ___ Female ___
   DD   MM   YYYY

1.4 Postal code of home address, first 3 characters only: ___ ___ ___

1.5 Where did the child spend more of his/her life? Province/Territory: ________________  Unknown ___

1.6 Did the child’s family immigrate to Canada? Yes ___ No ___ Unknown ___
   If yes, specify country: __________________________
   Date arrived in Canada: ____ / ________
   MM   YYYY

1.7 Does the child have a caregiver other than the parent(s)?
   Yes ___ No ___
   If yes, specify: Relative (specify) _____________________  Child care personnel ___

1.8 Ethnicity – mother: Aboriginal ___ – If known: First Nations ___ Innu ___ Inuit ___ Métis ___
   Asian (specify): __________________________
   Black ___ Caucasian ___
   Latin American ___ Middle Eastern ___ Unknown ___ Other (specify) __________________________

1.9 Ethnicity – father: Aboriginal ___ – If known: First Nations ___ Innu ___ Inuit ___ Métis ___
   Asian (specify): __________________________
   Black ___ Caucasian ___
   Latin American ___ Middle Eastern ___ Unknown ___ Other (specify) __________________________
SECTION 1 – DEMOGRAPHIC INFORMATION (cont’d)

1.10 What is the highest level of education completed by the child’s mother?
   Primary school ____  High school ____  College/University ____

SECTION 2 – MEDICAL HISTORY

2.1 Age of mother at delivery: _____ years
2.2 Gestational age: _____ weeks
2.3 Did the child have other medical conditions? ___  ___  ___
   If yes, specify: __________________________________________
2.4 Does the child have any food allergies/intolerances or restrictions? ___  ___  ___
   If yes, specify: __________________________________________
2.5 Was the child on medications at the time of anemia being recognized? ___  ___  ___
   If yes, specify: __________________________________________

SECTION 3 – NUTRITION AND HEALTH HISTORY

3.1 Current height: ____ cm or ____ inches; weight: ____ kg or ____ lbs.
3.2 Was the child ever breast fed? ___  ___  ___
   If yes, specify duration: _____ months  Exclusively ___  Partly ___
3.3 What best describes the child’s current milk feeding (check all that apply):
   3.3.1 Breast milk ___  ___  ___
   3.3.2 Commercial infant formula ___  ___  ___
      If yes, specify: cow’s milk protein-based iron-containing ___
      non iron-containing ___  soy protein-based formula ___
      age when started: __________  stopped: __________
      amount per day (on average): _____ mL or _____ oz
   3.3.3 Cow’s milk ___  ___  ___
      If yes, specify: 3.25% ___ partly skimmed milk (1% and 2%) ___
      age when started: __________  stopped: __________
      amount per day (on average): _____ mL or _____ oz
   3.3.4 Homemade evaporated milk formula ___  ___  ___
   3.3.5 Goat’s milk ___  ___  ___
      None ___  Other: ________________________________________
3.4 Does the child drink juice? ___  ___  ___
   If yes, age when started: __________  age when stopped: __________
   Amount per day (on average): _________ mL or _________ oz
3.5 Does the child drink tea? ___  ___  ___
3.6 Does the child use a bottle during the day? ___  ___  ___
   If no, age when stopped: ______ months; never used (breast to cup) ___
3.7 Does the child use a bottle in bed? ___  ___  ___
   If yes: occasionally ___  most of the time ___
SECTION 3 – NUTRITION AND HEALTH HISTORY  (cont’d)

3.8 Does the child use a cup/sip cup?  
- Yes  
- No  
- Unknown  

If yes, age when introduced: ______ months

3.9 What best describes the child’s current solid feeding (check all that apply):  
- Commercial infant cereal/puree  
- Age when cereal started ____________  
- Age when cereal stopped ____________  
- Table foods  
- None  
- Unknown

3.10 Are any of the following consumed less than 5 times/week?  
- Meat  
- Cereals or bread  

3.11 Prior to identification of IDA, did the child receive iron supplementation?  
- Yes  
- No  
- Unknown

3.12 Did/does the child have any dental cavities?  
- Yes  
- No  
- Unknown

3.13 During pregnancy, did the mother  
- drink cow’s milk or goat’s milk?  
- receive iron supplementation?  

3.14 After delivery, did the mother  
- drink cow’s milk or goat’s milk?  
- receive iron supplementation?  

SECTION 4 – PRESENTATION

4.1 What were the presenting signs and symptoms that prompted obtaining the initial complete blood count (CBC)?  
- Infectious illness  
- Poor weight gain  
- Poor energy  
- Fever  
- Underweight  
- Developmental delay  
- Pallor  
- Irritability  
- Routine  
- Other ______________________

SECTION 5 – INVESTIGATIONS AT PRESENTATION

<table>
<thead>
<tr>
<th>Blood parameter</th>
<th>Results prior to treatment (units)</th>
<th>Blood parameter</th>
<th>Results prior to treatment (units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemoglobin</td>
<td></td>
<td>Free-erythrocyte protoporphyrin</td>
<td></td>
</tr>
<tr>
<td>MCV</td>
<td></td>
<td>Reticulocyte count</td>
<td></td>
</tr>
<tr>
<td>Platelet</td>
<td></td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Ferritin</td>
<td></td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Iron</td>
<td></td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Transferrin</td>
<td></td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 6 – COMPLICATIONS

6.1 Did/does the child have evidence of (check all that apply):  
- Yes  
- No  
- Unknown

6.1.1 Stroke?  
- If yes, describe______________________________________________

6.1.2 Heart failure?  
- If yes, describe______________________________________________
SECTION 6 – COMPLICATIONS (cont’d)

6.1.3 Developmental delay? __ Yes ___ No ___ Unknown ___
If yes, describe: _____________________________________________

6.1.4 Other ____________________________________________

SECTION 7 – MANAGEMENT

7.1 Please describe measures taken (check all that apply):

7.1.1 Prescription for oral iron supplementation __ Yes ___ No ___ Unknown ___
If yes: dose _______ frequency _______ duration ______ days

7.1.2 Specific dietary treatment/recommendations __ Yes ___ No ___ Unknown ___
If yes, specify __________________________________________

7.1.3 Assessment/treatment in an emergency department __ Yes ___ No ___ Unknown ___

7.1.4 Hospitalization __ Yes ___ No ___ Unknown ___
If yes, specify total length of stay: _______ days

7.1.5 Blood transfusion __ Yes ___ No ___ Unknown ___

7.1.6 Consultation with paediatric hematologist __ Yes ___ No ___ Unknown ___

7.2 Did child respond to treatment by achieving Hb >80 g/L within 4 months? __ Yes ___ No ___ Unknown ___

SECTION 8 – REPORTING PHYSICIAN

First name ______________________ Surname ____________________________
Address __________________________________________________________
City __________________________ Province __________________________ Postal code ____________
Telephone number __________________ Fax number ______________________
E-mail __________________________ Date completed ____________________

___ I agree to be contacted by the research team for further information.
___ I do not wish to be contacted by the research team for further information.

Thank you for completing this form.

(IDA 2009-10)