

# Severe microcephaly (SM)

## CANADIAN PAEDIATRIC SURVEILLANCE PROGRAM

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## REPORTING INFORMATION

(To be completed by the CPSP)

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 SEVERE MICROCEPHALY

Report any new patient less than 12 months of age, with a head circumference measurement less than three standard deviations below the mean (0.13th centile) for gestational age and sex, based on the sex-specific World Health Organization growth parameters:

- Female term infant with a head circumference of less than 30.3 cm.
- Male term infant with a head circumference of less than 30.7 cm.
- Preterm infant (less than 38 weeks' gestation), as per appended INTERGROWTH-21st study standards.

Date of first visit: \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
DD MM YYYY

### SECTION 1 – INFANT INFORMATION

1.1 Date of birth: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ 1.2 Sex: Male \_\_\_\_ Female \_\_\_\_ Ambiguous genitalia \_\_\_\_  
DD MM YYYY

1.3 Gestational age at birth: \_\_\_\_ weeks

1.4 Birth type: Singleton \_\_\_\_ Twin \_\_\_\_ Higher order multiple \_\_\_\_ Order of birth: \_\_\_\_\_ N/A \_\_\_\_

1.5 Length (cm)	Weight (g)	Head circumference (cm)
At birth: _____	At birth: _____	At birth: _____
At visit: _____	At visit: _____	At visit: _____

1.6 Ethnicity (select all that apply):

First Nations \_\_\_\_ Innu \_\_\_\_ Inuit \_\_\_\_ Métis \_\_\_\_ Chinese \_\_\_\_ Japanese \_\_\_\_ Other Oriental \_\_\_\_  
East Indian \_\_\_\_ Black \_\_\_\_ Caucasian \_\_\_\_ Latin American \_\_\_\_ Middle Eastern \_\_\_\_  
Other, specify: \_\_\_\_\_ Unknown \_\_\_\_

1.7 Confirmed diagnosis (known cause of microcephaly): \_\_\_\_\_

1.8 If a diagnosis has not yet been confirmed, is there a leading suspected cause?

Infection \_\_\_\_ Genetic \_\_\_\_ Ischemic \_\_\_\_ Unknown \_\_\_\_ Other: \_\_\_\_\_

### SECTION 2 – CLINICAL INFORMATION

2.1 Clinical features	Yes	No	Unknown	Date/age of diagnosis
Dysmorphology	____	____	____	_____
<i>If yes, specify:</i> _____				
Intracranial abnormalities	____	____	____	_____
<i>If yes, specify:</i> Calcifications ____ Simplified gyral patterns ____ Brain malformation ____				
Other: _____				
<i>Specify testing:</i> US ____ CT ____ MRI ____ Other: _____				
Seizures	____	____	____	_____
Craniofacial disproportion	____	____	____	_____
Eye abnormalities	____	____	____	_____
<i>If yes, specify:</i> _____				

**SECTION 2 – CLINICAL INFORMATION (cont'd)**

2.1 Clinical features (cont'd)	Yes	No	Unknown	Date/age of diagnosis
Hearing impairment	___	___	___	_____
<i>If yes, specify degree:</i> _____				
Spasticity	___	___	___	_____
Hypotonia	___	___	___	_____
Rash	___	___	___	_____
Hepatosplenomegaly	___	___	___	_____
Joint contractures	___	___	___	_____
Unusual hair patterning	___	___	___	_____
Other abnormal clinical features: _____				

2.2 Has the patient achieved developmental milestones, in the following domains, appropriate for age / corrected gestational age?

Gross motor	Yes ___	No ___	N/A ___ (specify below)	Unknown ___
Fine motor	Yes ___	No ___	N/A ___ (specify below)	Unknown ___
Social	Yes ___	No ___	N/A ___ (specify below)	Unknown ___
Language	Yes ___	No ___	N/A ___	

Please specify: \_\_\_\_\_

2.3 **Pregnancy information**

Prior pregnancy information: P \_\_\_ G \_\_\_

	Yes	No	Unknown	Date/age of diagnosis
Hypertension	___	___	___	_____
Gestational diabetes mellitus	___	___	___	_____
<i>If yes, maternal GDM was:</i> well controlled ___ poorly controlled ___				
	diet-controlled only ___		insulin-controlled ___	
Pre-gestational diabetes	___	___	___	_____
Abdominal injury	___	___	___	_____
Elevated maternal PKU	___	___	___	_____
Severe malnutrition	___	___	___	_____
Abnormal ultrasound findings	___	___	___	_____
Placental insufficiency	___	___	___	_____
Rhesus disease	___	___	___	_____
Other pregnancy complications	___	___	___	_____

Please specify any chronic conditions of the mother:

\_\_\_\_\_

Specify any medications (prescribed, OTC) used during pregnancy: \_\_\_\_\_

Specify any medications (prescribed, OTC) used three months prior to pregnancy: \_\_\_\_\_

2.3.1 **Pregnancy exposures**

Is there a history of smoking during pregnancy? Yes \_\_\_ No \_\_\_ Unknown \_\_\_

*If yes, report specific consumption:* \_\_\_\_\_

Is there a history of alcohol use during pregnancy? Yes \_\_\_ No \_\_\_ Unknown \_\_\_

*If yes, report specific consumption:* \_\_\_\_\_

Is there a history of illicit drug use during pregnancy? Yes \_\_\_ No \_\_\_ Unknown \_\_\_

*If yes, report specific illicit drug and consumption:* \_\_\_\_\_

Is there a history of known teratogen exposure during pregnancy? Yes \_\_\_ No \_\_\_ Unknown \_\_\_

*If yes, specify teratogen and exposure quantity:* \_\_\_\_\_

**SECTION 2 – CLINICAL INFORMATION (cont'd)**

**2.4 Delivery information**

Maternal age at delivery: \_\_\_\_\_ years  
 Mode of delivery: SVD \_\_\_\_\_ AVD \_\_\_\_\_ C/S \_\_\_\_\_  
 If C/S, explain indication: \_\_\_\_\_  
 APGAR scores: 1 minute \_\_\_\_\_ 5 minute \_\_\_\_\_ 10 minutes \_\_\_\_\_

**2.5 Diagnostic work-up**

Karyotype: Yes \_\_\_ No \_\_\_ Result: \_\_\_\_\_ [ ] if pending  
 DNA microarray: Yes \_\_\_ No \_\_\_ Result: \_\_\_\_\_ [ ] if pending  
 Specific gene testing: Yes \_\_\_ No \_\_\_ Result: \_\_\_\_\_ [ ] if pending  
 Brain imaging: US \_\_\_ CT \_\_\_ MRI \_\_\_ Results/major findings: \_\_\_\_\_  
 EEG: Yes \_\_\_ No \_\_\_ Result: \_\_\_\_\_ [ ] if pending  
 TORCH screen: Yes \_\_\_ No \_\_\_  
 If positive, specify infection: Toxo \_\_\_ Rubella \_\_\_ CMV \_\_\_ Herpes \_\_\_ VZV \_\_\_ Zika \_\_\_  
 Syphilis \_\_\_ Other, specify: \_\_\_\_\_

Laboratory investigations (non-syphilis):

	Not done	Normal	Result	Date of test: MM / YYYY
PCR	_____	_____	_____	_____
IgM	_____	_____	_____	_____
IgG	_____	_____	_____	_____
PRNT	_____	_____	_____	_____
Other: _____	_____	_____	_____	_____

Other basis for diagnosis: \_\_\_\_\_

Laboratory investigations (syphilis only)

Treponemal test (specify): \_\_\_\_\_ Not done \_\_\_ Positive \_\_\_ Negative \_\_\_  
 Treponemal test (specify): \_\_\_\_\_ Not done \_\_\_ Positive \_\_\_ Negative \_\_\_  
 Treponemal test (specify): \_\_\_\_\_ Not done \_\_\_ Positive \_\_\_ Negative \_\_\_  
 Non-treponemal test: Not done \_\_\_ Positive \_\_\_ If positive, titer: \_\_\_\_\_ Negative \_\_\_  
 Trimester of TORCH infection: 1<sup>st</sup> \_\_\_ 2<sup>nd</sup> \_\_\_ 3<sup>rd</sup> \_\_\_ Unknown \_\_\_

Other diagnostic work-up, specify: \_\_\_\_\_

**2.6 Travel history**

Did mother or father travel to other countries during pregnancy or three months prior to conception?

**Mother:** Yes \_\_\_ No \_\_\_ Unknown \_\_\_

*If yes,*

Country: \_\_\_\_\_ Approx. date arrived: \_\_\_\_\_ Approx. date departed: \_\_\_\_\_

Country: \_\_\_\_\_ Approx. date arrived: \_\_\_\_\_ Approx. date departed: \_\_\_\_\_

Country: \_\_\_\_\_ Approx. date arrived: \_\_\_\_\_ Approx. date departed: \_\_\_\_\_

Illness presented during travel? Yes \_\_\_ No \_\_\_ Unknown \_\_\_

Specific diagnosis: \_\_\_\_\_ Diagnosis made by: \_\_\_\_\_

Specify: Fever \_\_\_ Rash \_\_\_ Arthralgia/arthritis \_\_\_ Conjunctivitis \_\_\_ Myalgia \_\_\_ Headache \_\_\_

Retro-orbital pain \_\_\_ Pruritus \_\_\_ Other, specify: \_\_\_\_\_

**Father:** Yes \_\_\_ No \_\_\_ Unknown \_\_\_

*If yes,*

Country: \_\_\_\_\_ Approx. date arrived: \_\_\_\_\_ Approx. date departed: \_\_\_\_\_

Country: \_\_\_\_\_ Approx. date arrived: \_\_\_\_\_ Approx. date departed: \_\_\_\_\_

Country: \_\_\_\_\_ Approx. date arrived: \_\_\_\_\_ Approx. date departed: \_\_\_\_\_

**SECTION 2 – CLINICAL INFORMATION (cont'd)****2.6 Travel history (cont'd)**

Illness presented during travel? Yes \_\_\_ No \_\_\_ Unknown \_\_\_

Specific diagnosis (if any): \_\_\_\_\_ Diagnosis made by: \_\_\_\_\_

Specify: Fever \_\_\_ Rash \_\_\_ Arthralgia/arthritis \_\_\_ Conjunctivitis \_\_\_ Myalgia \_\_\_ Headache \_\_\_

Retro-orbital pain \_\_\_ Pruritus \_\_\_ Other, specify: \_\_\_\_\_

**2.7 Was Zika virus infection ever considered as a possible cause of microcephaly in this case? Yes \_\_\_ No \_\_\_**

*If yes, was the **mother** tested for evidence of past/current Zika virus infection? Yes \_\_\_ No \_\_\_*

*If yes, what was the testing performed? \_\_\_\_\_ Result \_\_\_\_\_ Timing of test \_\_\_\_\_*

*If yes, was the **infant** tested for evidence of past/current Zika virus infection? Yes \_\_\_ No \_\_\_ [ ] if pending*

*If yes, what was the testing performed? \_\_\_\_\_ Result \_\_\_\_\_ Timing of test \_\_\_\_\_*

**SECTION 3 – FAMILY HISTORY****3.1 Consanguinity of parents**

Degree of relationship: None \_\_\_ 1st \_\_\_ 2nd \_\_\_ 3rd \_\_\_ >3rd \_\_\_

**3.2 Family history of microcephaly: Yes \_\_\_ No \_\_\_ Unknown \_\_\_**

Family history of other congenital anomalies: None \_\_\_ Unknown \_\_\_ Specify: \_\_\_\_\_

Family history of developmental delays: Yes \_\_\_ No \_\_\_ *If yes, specify: \_\_\_\_\_*

Previous pregnancy with congenital anomaly(ies): Yes \_\_\_ No \_\_\_ Unknown \_\_\_

History of miscarriage: Yes \_\_\_ No \_\_\_ Unknown \_\_\_

History of stillbirth: Yes \_\_\_ No \_\_\_ Unknown \_\_\_

\_\_\_ **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 4 – REPORTING PHYSICIAN**

First name \_\_\_\_\_ Surname \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Province/Territory \_\_\_\_\_ Postal code \_\_\_\_\_

Telephone number \_\_\_\_\_ Fax number \_\_\_\_\_

E-mail \_\_\_\_\_ Date completed \_\_\_\_\_

**Thank you for completing this form.**