

BH10104

# Protocol for newborn of mother with a reactive syphilis serology during pregnancy

Last name: First name:
Date of birth:
Sex:
File number:
RAMQ number:

**Objective:** Standardize the management for newborns of mothers with reactive syphilis serology during pregnancy in Nunavik and ensure the required monitoring.

**Indication:** This protocol must be prescribed following a result of a reactive syphilis serology during the mother's pregnancy and after consultation with the pediatric infectious-diseases specialist.

**Instructions on use of the protocol:** The present protocol serves as a prescription for the care and monitoring required for newborns of mothers with a reactive syphilis serology during pregnancy. The nurse, midwife or physician shall initial and indicate the date as the tasks are carried out. This protocol does not replace the note in the record. The protocol should be kept in the mother's record until childbirth and then placed in the newborn's record at birth.

Care for syphilis in a pregnant woman: Refer to the protocol for syphilis in pregnant women.

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Identification of biological mother and evaluation of her treatment		
Mother's first and last names:	_ Mother's DOB: YYYY4/MM/DD	
Mother's record number: Mother's RAMQ:		
Date of childbirth: YYY/MM/DD Number of weeks of pregnancy at childbirth: Number of weeks of pregnancy upon completion of mother's Result of mother's RPR at childbirth: Date: YYY/MM, Mother's stage of syphilis at time of diagnosis:	DD	
Preliminary evaluation of risk of congenital syphilis		
Preliminary evaluation of risk of congenital syphilis         □ One or more criteria to consider mother as adequately treated concerning risk of transmission to foetus IS NOT met:         • Complete treatment received (3 doses within recommended time periods) more than 30 days before childbirth         • Benzathine penicillin G received as treatment and not a substitute         • Mother's RPR evolution adequate <sup>1</sup> • 4-fold drop in RPR titre before childbirth OR         • RPR titre ≤ 1:8         □ Suspicion of inadequately treated re-exposure or reinfection in mother         □ Foetus ultrasound with sign(s) of congenital syphilis         □ Clinical signs of syphilis in mother at childbirth		
Prescriber's signature and title:	Practice no.: Date: YYYY/MM/DD	

<sup>&</sup>lt;sup>1</sup> In case of late latent infection, the mother's RPR might not drop as much if it was already low at the outset.

First and last names: \_\_\_\_\_\_ DOB: YYYY/MM/DD

	Date YYYY/MM/DD	Initials
Initial evaluation of newborn and consultation		
Syphilis serology at birth <sup>2</sup>		
The serology must be performed through venipuncture and must not be from the umbilical cord. Date of serology: YYYY/MM/DD Results:		
<ul> <li>Qualitative RPR analyzed in Nunavik:</li> <li>EIA:</li> <li>RPR:</li> <li>TP-PA:</li> <li>INNO-LIA: Performed on:</li> </ul>		
Initial physical examination		
Proceed with newborn's physical examination at birth       Performed on:         Refer to Table 1 in appendix for features and clinical signs of congenital syphilis to look for during physical examination.       Consultation with pediatric infectious-diseases specialist		
Systematically consult with the pediatric infectious-diseases specialist at child's birth Consultation date:		
Additional examinations following pediatric infectious-diseases specialist's recommendations		
Image: FSC, liver enzymes and bilirubinPerformed on:		
Image: X-rays of long bones and claviclesPerformed on:		
Lumbar puncture: CSF glucose, protein level, VDRL (available at tertiary centre) and CSF cell count Performed on:		
Blood glucose (simultaneous with lumbar puncture)Performed on:		
Hearing test and ophthalmological evaluationPerformed on:		
Notification to the Public Health Department		
<ul> <li>Send the following information at stbbi.nrbhss@ssss.gouv.qc.ca</li> <li>Information on newborn (first and last names, DOB, record number)</li> <li>Information on biological mother (first and last names, DOB, record no.)</li> <li>Progress notes of newborn's physical examination performed by physician at birth</li> <li>Date when initial serology was performed on newborn</li> <li>Recommendations provided by pediatric infectious-diseases specialist</li> </ul>		
Treatment		
Check if a treatment with crystalline, water-soluble penicillin G IV for 10 days was admin diseases specialist's recommendation or after attending physician's evaluation	istered on pediatric	infectious-
Treatment started on: YYY/MM/DD		
Treatment completed on: YYYY/MM/DD		
Record keeping		
Schedule chart review for child at first month of life to ensure planning of follow-ups Scheduled on:		
Enter exposure to syphilis during pregnancy and recommendations of follow-ups on newborn's discharge-summary sheet		
Prescriber's signature and title: Practice no.:	Date: YYY	//MM/DD

<sup>&</sup>lt;sup>2</sup> It is possible for the EIA, RPR and confirmatory tests to be positive in the newborn due to transfer of antibodies from the mother without necessarily indicating a diagnosis of congenital syphilis. These results must be interpreted with caution and correlated with the mother's RPR. The risk of congenital infection is marked when the newborn's serum RPR is four times higher (two dilutions) than that of the mother at childbirth.

First and last names: \_\_\_\_\_\_ DOB: YYYY/MM/DD

		Date YYYY/MM/DD	Initials
Subsequent evaluations and f	ollow-ups of newborn		•
According to overall evaluation of risk of congenital syphilis and p check physical examinations and serological follow-ups to be perfor		specialist's recomr	nendation
Physical examinations			
$\Box$ Proceed with physical examination at age of 1 month	Performed on:		
$\Box$ Proceed with physical examination at age of 2 month	Performed on:		
$\Box$ Proceed with physical examination at age of 3 month	Performed on:		
Serological follow-ups <sup>3</sup>			
Syphilis serology at age of 1 month scheduled for YYYY/MM/DD	Performed on:		
□ Syphilis serology at age of 2 month scheduled for \\\\\/MM/DD	Performed on:		
□ Syphilis serology at age of 3 month scheduled for YYYY/MM/DD	Performed on:		
$\Box$ Syphilis serology at age of 4 month scheduled for YYYY/MM/DD	Performed on:		
Syphilis serology at age of 6 month scheduled for YYYY/MM/DD	Performed on:		
$\Box$ Syphilis serology at age of 12 month scheduled for YYYY/MM/DD	Performed on:		
□ Syphilis serology at age of 18 month scheduled for \\\\\/MM/DD	Performed on:		
Additional examinations			
Other:	Performed on:		
Other:	Performed on:		
Additional consultation with pediatric infectious-diseases specialis	t		
<ul> <li>During follow-up, consult pediatric infectious-diseases specialist if n</li> <li>presence of symptoms of congenital syphilis in child</li> <li>rise in child's RPR<sup>4</sup></li> </ul>	eeded and particularly for:		
<ul> <li>RPR still reactive at 6 months of age<sup>4</sup></li> <li>EIA still reactive at 18 months of age<sup>4</sup></li> </ul>			
EIA suil reactive at to months of age	Performed on:		
rescriber's signature and title:	Practice no.:	Date: YYYY	/MM/DD
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<sup>&</sup>lt;sup>3</sup> It is possible for the EIA, RPR and confirmatory tests to be positive in the newborn due to transfer of antibodies from the mother without necessarily indicating a diagnosis of congenital syphilis. These results must be interpreted with caution and correlated with the mother's RPR. The risk of congenital infection is marked when the newborn's serum RPR is four times higher (two dilutions) than that of the mother at childbirth. <sup>4</sup> The pediatric infectious-diseases specialist may recommend a lumbar puncture for control purposes in these situations.

### Appendix

### Table 1: Features and clinical signs of early congenital syphilis

System	Features
Growth	Low birth weight, failure to thrive*
General	Fever, pallor, jaundice, non-immune hydrops, generalized lymphadenopathy, severe sepsis syndrome
Head and neck	Rhinitis, chorioretinitis, cataracts, uveitis, keratitis
Skin	Maculopapular*, desquamating* or vesiculobullous lesions
Cardiorespiratory	Myocarditis, congestive heart failure, respiratory distress, pneumonia
Gastrointestinal	Hepatosplenomegaly*, necrotizing funisitis, pancreatitis, transaminitis
Central nervous system	Cranial neuropathies, meningitis, seizures, hearing loss
Musculoskeletal	Dactylitis, periostitis* leading to pseudoparalysis
Renal	Proteinuria, hematuria or nephrotic syndrome
Other	May mimic other infectious-disease syndromes, congenital infections or non-infectious conditions (e.g., juvenile myelomonocytic leukemia)

\*Frequent observations

## Table 2: Reference concerning serological follow-ups recommended for newborns of mothers with a reactive syphilis serology during pregnancy (not a substitute for consultation and recommendations of pediatric infectious-diseases specialist)

Situation	Recommendation for serological follow-ups
Untreated newborn of mother adequately treated before	Birth
pregnancy (and without reinfection of mother during pregnancy)	3 months*
	6 months
	12 to 18 months
	Birth
Untreated newborn of mother who had syphilis that was	2 months
adequately treated <b>during</b> pregnancy	4 months
	6 months
	12 to 18 months
	Birth
Newborn treated for suspected/risk of congenital syphilis at	3 months
birth	6 months
	18 months
Untreated newborn of mother who had syphilis that was not	Birth
adequately treated during pregnancy	1 months
	2 months
	3 months
	6 months
	12 months
	18 months

\* If the RPR and EIA results are non-reactive past three months of age and the mother's risk of reinfection at the end of pregnancy remained low, no other tests are indicated.

#### References

Agence de la santé publique du Canada. Infections transmissibles sexuellement et par le sang : Guides à l'intention des professionnels de la santé. ASPC; 2021. Available at : <u>https://www.canada.ca/fr/sante-publique/services/maladies-infectieuses/sante-sexuelle-infections-transmissibles-sexuellement/lignes-directrices-canadiennes.html</u>

Fanella S, Bitnun A, Barton M, Sauvé L. Le diagnostic et la prise en charge de la syphilis congénitale : ne laisser passer aucune occasion. Société canadienne de pédiatrie; 2024. Available at : <u>https://cps.ca/fr/documents/position/syphilis-congenitale</u>