



Early Detection of Neonatal Cholestasis (specifically biliary atresia)

Date Effective: April 17, 2018

Date Issued: March 23, 2018

Background Information:

- Biliary Atresia occurs in 1 to 2 infants per year in Manitoba. Diagnosis before 3 months of age improves likelihood of survival and may prevent the need for a liver transplant by early referral for a Portoenterostomy.

Change in Test Procedure:

- **For infants 30 days to 3 months of age**, if total bilirubin (TBIL) is $> 20 \mu\text{mol/L}$, lab will automatically add and report a direct (conjugated) bilirubin (DBIL).
- If the DBIL is $>20\%$ of the TBIL, and the DBIL is $>17 \mu\text{mol/L}$ the lab will add a comment to the DBIL report:
"Elevation in conjugated (direct) bilirubin level is pathologic. Prompt evaluation is necessary for neonatal cholestasis including biliary atresia. Please consider discussing with pediatric gastroenterologist or pediatrician on service (HSC paging 204-787-2071)."
- For infants less than 30 days of age, only the ordered bilirubin tests will be performed, the lab will not perform DBIL testing unless it is ordered.

References/Resources:

- E. Benchimol et. al. "Early diagnosis of neonatal cholestatic jaundice" Can Fam Physician 2009;55:1184-92
- Approved at WRHA Pediatric/Child Health Standards Committee Meeting January 25, 2018

Patient Impact:

- May be life saving for an infant with biliary atresia by preventing delayed diagnosis and therefore preventing need for a liver transplant.

System Improvements:

- Promotes prompt assessment of infants with jaundice lasting more than 30 days.

DSM Contact Information:

Laurel Thorlacius, PhD, FCACB
Medical Director, Clinical Biochemistry
Diagnostic Services of Manitoba
MS-543 - 820 Sherbrook St.
Winnipeg, MB R3A 1R9
T 204-787-8858
F 204-787-3846
lthorlacius@dsmanitoba.ca