IMPROVING COMPLETE SCREENING FOR HEPATITIS C VERTICAL TRANSMISSION IN THE PERINATAL PERIOD

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Background to issue

- In the general population in Canada, appropriately 1.5% of people have a HCV infection in their lifetime (Canadian CDC)
- The risk of vertical transmission of HCV in British Columbia is approximately 4.7% (Money et al 2014)
- The risk is increased with HIV co-infection: up to 10.8%
- HCV infection in infants can lead to irreversible liver damage

Sheway Clinic Model

- Low barrier and harm reduction pregnancy outreach program for parents using substances in pregnancy and in early parenting, based in Vancouver, Canada
- Interdisciplinary team including physicians (family physicians, pediatricians, psychiatrists), nurses, social workers, infant development experts, dietician, outreach workers, peer support workers, and an Indigenous Elder
- Many of our parents are at increased risk of contracting hepatitis C (HCV) and therefore of HCV vertical transmission to their children

Current Clinic Approach

Sheway Practice Standard

- Screen with anti-HCV at 18 months
  - Based on practical adaptation of BC CDC 2016 guideline, in consult with expert advice, and supported by AASLD-IDSA 2017 guidelines
- Opportunistic approach
  - Individual Clinician notes that child needs screening and provides lab requsition

Hypothesized Barriers

- Not all parent/child dyads still followed by clinic at 18 months
- Generally fewer routine visits for well child care past 12 months of age
- No uniform EMR system for creating master list of children requiring screening
- Parents may not have child in their care

Aims of Quality Improvement Project

- Determine current efficacy of opportunistic screening for HCV vertical transmission
- Examine further barriers to completing screening
- Implement uniform EMR intervention and generate master list of children requiring screening

Chart Review

- Reviewed all babies born Jan ‘18-Dec ‘19 to see prevalence of HCV
  - Reviewed maternal perinatal screening for HCV

- For Babies born Jan ‘18 - Feb ‘19 (All 18 months + at time of review)
  - If child had received screening with anti-HCV serum testing at 18 months +
    - If this was a negative screen
  - If HCV status was indicated on the parent’s or child’s chart
  - If dyad was still followed by clinic at 18 months

32% 58/182

Of babies born Jan 2018-Dec 2019 had potential perinatal HCV exposure

	Babies born	Potential Perinatal HCV exposure	%
2018	94	27	29%
2019	88	31	35%

Chart Review Summary Table (Jan ‘18- Feb ‘19)

Parents with perinatal HCV status determined	107/ 108	99%
Parent/Child dyads with potential perinatal HCV exposure (anti-HCV antibody +)	30/108	**28%**
Perinatal HCV exposure with status recorded in: **Parent**’s problem list **Child**’s problem list **Child**’s interventions	 27/30 7/30 4/30	 90% 23% 13%
Perinatally exposed dyads still followed at 18 months	22/30	73%

40% (12/30)

Of babies with perinatal HCV exposure were screened for vertical transmission at 18 month or older

Of these babies, none had vertical transmission of HCV

Conclusions from Chart Review

- Sheway has excellent rates of screening prenatally parents for past/present HCV infection
- About ⅓ of Sheway parents are anti-HCV positive prenatally
- Only 40% of those dyads with parents anti-HCV positive prenatally were screened for HCV vertical transmission at 18 months
- 73% of children were still followed by Sheway at 18 months
- We did not have a uniform system of recording HCV status in chart of parent/child dyad, and no way of generating a master list of children requiring screening

Changes implemented following Chart Review

- Added intervention to all children requiring screening (included those who had completed screening)
- Ran EMR query to ensure that we could generate master list of those requiring screening, and those who have completed screening
- Support and outreach provided to these families to help complete screening

Outcomes of New System and Future Steps

- With changes in system, the most recent EMR query of all dyads requiring screening showed that 64% of dyads had either received screening or, if were no longer followed by the clinic, had been contacted to complete screening
    - Of note, all of the children from the original query have been screened
- Of those unscreened and still connected to the clinic, all are aware that screening is required and we are actively trying to connect them to screening
- There have been no cases of vertical transmission
- We will continue to use this system of recall, and will be able to evaluate its efficacy by continuing to run EMR queries

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