Approved by Quality & Patient Safety Committee
December 2012

HEPATITIS C POSITIVE MOTHERS AND THEIR BABIES

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

- **AIM**
  - Appropriate management of woman with Hepatitis C infection
  - Reduce mother to child to infection of Hepatitis C

- **PATIENT**
  - Pregnant woman with chronic Hepatitis C in pregnancy

- **STAFF**
  - Registered midwives
  - Student midwives
  - Medical Staff

- **EQUIPMENT**
  - Personal protective equipment

- **CLINICAL PRACTICE**

ANTENATAL

- Offer all pregnant women screening for Hepatitis C at booking with Hepatitis C antibody testing
- Make an appointment for women who are Hepatitis C Ab positive to see one of the obstetricians
- Obtain further serology/tests if Hepatitis C Ab positive: Hepatitis C Virus (HCV) PCR RNA. (PCR detects the virus, not just the antibodies to the virus present in blood.) Liver function tests may be repeated each trimester.
- Ensure woman has been tested for Hepatitis B and HIV in this pregnancy
- Refer Hepatitis C positive woman to be seen at the Prince of Wales (POW) Liver Clinic at around 20 weeks gestation, with a medical referral with the name and provider number of the medical officer,
  Fax 02 9650 4898, Phone 02 9382 3101
- Inform the woman that it is a notifiable disease and notify the Public Health Unit if it is a new diagnosis

INTRAPARTUM

- Avoid the use of fetal scalp electrodes during fetal monitoring, especially if Hepatitis C PCR positive
- Avoid fetal blood sampling, especially if Hepatitis C PCR positive
- Implement standard precautions for care of all women

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POSTNATAL

- Clean the neonate's eyes and non-intact skin with water as soon as possible after the birth
- Clean the injection site with soap and water or with alcohol swab before administering vitamin K, hepatitis B or any other injections.
- Encourage breast feeding as per BFHI unless nipples are significantly cracked and bleeding and in such cases express and discard milk until healed.
- Arrange (by paediatric resident medical officer) follow-up for the infant. Infant needs follow-up testing with HCV RNA PCR at 2 and 6 months of age **and** HCV antibody, HCV RNA PCR and LFT at 12-18 months of age.
    - For 2 and 6 months of age follow-up: baby can be seen at either our newborn follow-up clinic or CUPS clinic if the CUPS team is involved prior.
    - For 12-18 months of age: Refer the baby to Infectious Diseases Clinic at SCH(DR Pam Palasanthiran's clinic).
    - If any of the follow-up tests are positive, further investigations and follow-up by a paediatrician is necessary.

- **DOCUMENTATION**
    - Integrated Clinical Notes
    - ObstetriX
    - Yellow card

- **EDUCATIONAL NOTES**
    - Hepatitis C is a significant public health problem and one of the most commonly reported notifiable diseases in Australia
    - Hepatitis C is a blood borne virus predominantly transmitted through sharing injecting equipment, which accounts for approximately 90 per cent of new infections and 80 per cent of existing infections.
    - Transmission can also occur :
        - through non-sterile tattooing and body piercing
        - through non-sterile medical or dental procedures, particularly in countries of high Hepatitis C prevalence
        - from mother to infant during delivery if the mother has detectable Hepatitis C virus in her blood
        - in occupational settings through needlestick injuries and accidental exposures to infected blood or blood products
        - through transfusion of infected blood or blood products in Australia before 1990
    - Around 75 per cent of people exposed to Hepatitis C develop chronic infection, defined as the presence of the Hepatitis C virus in the bloodstream for longer than six months. The remaining 25 per cent will spontaneously clear the infection, but will continue to have detectable antibodies
    - After an average of 15 years, between 40 and 60% of people with chronic Hepatitis C will experience some symptoms and develop some liver damage. There is a treatment for Hepatitis C called Pegylated Interferon and Ribavirin. All patients who have Hepatitis C should be advised regarding the possibility of ongoing liver damage, and that treatments are available. Women with chronic Hepatitis C should be advised to limit their alcohol intake.
    - Rates of vertical transmission are low (~6%). This is negligible if the Hepatitis C RNA is negative. HIV and Hepatitis C RNA positive co-infection increases the risk to 9-45%

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- Currently, there is insufficient evidence regarding possible effectiveness and cost effectiveness of universal screening. There are no available safe treatments in pregnancy. Techniques to reduce vertical transmission, such as caesarean section, have not yet been adequately evaluated. There is insufficient evidence that antenatal treatment / intervention is of benefit to mother or baby in terms of reduction in disease severity
- Hepatitis C positive women can breastfeed their babies unless actively bleeding e.g. cracked nipples. Children diagnosed with chronic Hepatitis C should be referred to a paediatric service with expertise in viral hepatitis. Some may have persistently elevated LFTs but children have been known to clear HCV by 5 years of age. There is no established treatment for vertical HCV infection. Contraception: the oral contraceptive pill and progesterone only pills are suitable for most women with chronic Hepatitis C. However for women with severe liver disease options without estrogen, (such as Implanon, Intra-Uterine Contraceptive Device (IUCD) or barrier methods) may be more suitable

- **RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP**
  - Standard Precautions Area Infection Control Policy Directives
  - Antenatal screening and treatment : Sexual Transmitted infections and Blood borne viruses

- **REFERENCES**

1 Third National Hepatitis C Strategy 2010–2013. Commonwealth of Australia 2010
2 RANZCOG College Statement. Hepatitis C (C-Gen 4). 2009
3 Hepatitis Australia. http://www.hepatitisaustralia.com/home
4 South Australian Perinatal Practice Guidelines. Chapter 45. Hepatitis C in pregnancy. Nov 2010.
5 Lam NCV, Gotsch PB, Langan RC. Caring for pregnant women and newborns with hepatitis B or C. Am Fam Physician 2010;82:1225-1229.
6 Centers for Disease Control and Prevention. Guidelines for prevention and treatment of opportunistic infections in HIV-Infected adults and adolescents. MMWR 2009;58 (No. RR-4):84-91.

REVISION & APPROVAL HISTORY

Endorsed Maternity Services Division LOPs group October 2012

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HEPATITIS C POSITIVE MOTHERS AND THEIR BABIES cont'd

CHECKLIST

ACTION	DATE	SIGNED
Arrange further serology / bloods		
Patient information leaflet given re Hepatitis C		
Liver Clinic Referral		
Date seen in Liver Clinic		
Postnatal follow-up with Liver Clinic arranged		
Follow-up for baby arranged		

Patient information leaflets: Queensland health:
http://www.health.qld.gov.au/sexhealth/documents/hepc_baby_n_me.pdf