Chickenpox and Pregnancy

INFORMATION FOR PRIMARY CARE PROVIDERS

Region of Waterloo
PUBLIC HEALTH AND EMERGENCY SERVICES

Preconception and Pregnancy – Determine Immunity

- Past history of varicella, consider immune (if exposure to varicella occurs in pregnancy, it is now recommended to confirm immunity with serology)
- No history of varicella, consider serology (Varicella IgG) as may be immune despite no known history
- Adults are likely immune from past infection but this may change in the future with the introduction of chickenpox vaccination (2004 in Ontario)
- Adults less likely to be immune if from a developing country
- Serology is sent to Public Health Ontario Lab in Toronto for testing, approximately 5 working days for results
- If urgent i.e. exposure - order stat, indicate pregnant, verbal results may be available sooner (testing done daily, M-F)
- For verbal results call Public Health Ontario Lab in Toronto at 1-877-604-4567

Management if Non-immune

Preconception:

- Offer varicella vaccine (2 doses ≥ 6 weeks apart), wait ≥ 1 month from 2nd dose before trying to conceive
- Vaccine effectiveness > 98% at 10 years after 2 dose series
- Current serology testing used may not be sensitive enough to determine immunity from vaccine, consider immune after 2 doses of vaccine

Pregnancy:

- Avoid exposure to varicella; immunization of healthy, non-immune family members is recommended
- Recommend vaccine series after delivery if no infection occurs during pregnancy

Exposure to Varicella during pregnancy

- The following situations are considered significant exposures to a person with varicella while infectious:
  - ☐ Continuous household contact (that is, living in the same dwelling) with a person with varicella
  - ☐ Being indoors for more than 1 hour with a person with varicella
  - ☐ Being in the same hospital room for more than 1 hour, or more than 15 minutes of face-to-face contact with a person with varicella
  - ☐ Touching the lesions or articles freshly soiled by discharges from vesicles of a person with active varicella
- Infectious period- as long as 5 days but usually 1-2 days before onset of rash and continuing until lesions are crusted (usually about 5 days)
- Seronegative, or no history of varicella and too late for serology - VarIg (varicella zoster immune globulin) recommended
- Note- persons from developing countries have higher incidence of being non-immune

VarIg (varicella zoster immune globulin)

- VarIg (VariZIG™) can be ordered from hospital blood banks - call ahead to Cambridge or Grand River Hospital - may be picked up by patient and brought directly to physician's office for administration
- Intramuscular administration, usually 4-5 injections
- Administer as soon as possible, preferably within 48-96 hours, but can be given up to 10 days after exposure
- Protection lasts 3-4 weeks

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- May not completely prevent infection but expected to reduce severity of infection both for mother and baby
- Patient should be advised to contact physician ASAP if infection develops. Some experts advise oral acyclovir in the 2nd and 3rd trimester particularly if > 100 lesions or history of respiratory co-factors; close monitoring for pneumonitis important, onset usually in the first week after onset of rash

Management of Varicella Infection in Pregnancy

- If woman develops varicella within 5 days prior to or within 48 hours after delivery neonate is at high risk of severe infection and VarIg should be given to newborn infant
- Pregnant women are at risk of pneumonitis, usually viral, which can be life threatening if not treated appropriately, especially in the third trimester (incidence of pneumonitis 5-10%, most commonly occurs day 4 or later)
- Consultation/referral to obstetrician recommended regarding management for pregnant woman and appropriate follow up to screen for fetal consequences of infection
- Risk to fetus (1-3% baseline risk of congenital anomaly for all pregnant women):
  - 1st 12 weeks: < 1% (0.4-0.7%) above baseline
  - 13-28 weeks: < 2% above baseline
  - > 28 weeks: no increased risk above baseline (unless develops within 5 days before or 48 hours after delivery as above)
- Congenital risks include limb hypoplasia, eye and brain damage, skin lesions

References

J. Obstet Gynaecol Can 2012:34(3): 287-292. SOGC Clinical Practice Guideline. Management of Varicella Infection (Chickenpox) in Pregnancy

Committee on Infectious Diseases, American Academy of Pediatrics (2015). Red Book (30th ed)

An Advisory Committee Statement (ACS) National Advisory Committee on Immunization (NACI). Updated recommendations for the use of varicella zoster immune globulin (VarIg) for the prevention of varicella in at-risk patients. July 2016.

An Advisory Committee Statement (ACS) National Advisory Committee on Immunization (NACI). Varicella Proof of Immunity – 2015 Update

See also: fact sheet for the general public
Chickenpox and Pregnancy

Alternate formats of this document are available upon request.

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