



Hepatitis C

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What is Hepatitis C?

This is a viral infection which targets the liver. It is distinguished from Hepatitis A and B and thus until identified in 1990 was called Non A Non B hepatitis.

How is Hep C transmitted?

The virus is transmitted via contact with blood or body fluid. Now that there is screening of the blood supply, most cases of hepatitis C are related to non prescription intravenous drug use or via nasal instillation (snorting). In health care workers the rate of transmission via needle stick injury is 1/10th that of Hep C but is more transmissible than HIV. There are no specific prophylactic measures.

The disease can be transmitted via sexual contact but this is much rarer than Hep B or HIV . Thus there are no specific guidelines to modify sexual practices based on Hepatitis C in one partner. Longitudinal studies to show that the longer a couple is together, the rate of Hep C in the initially uninfected partner does rise. Cases of transmission to a fetus has been documented but is a rare event.

How to test for Hepatitis C?

Screening is a serologic test for antibody to Hepatitis C. This usually indicates a prior exposure. Approximately 15% of seropositive patients will have no detectable virus which is a marker of either spontaneous clearance of the virus or a level so low that disease progression is unlikely.

The second test is a qualitative PCR test which indicates the presence of virus. Quantitative testing can be done to define the level of the viral load and designate the genotype of the virus. This information is used to assess the need for treatment and the probability of success of the therapy.

What is the prognosis for Hepatitis C infection?

In most cases, it takes more than 15 years of infection to have significant damage to the liver.

The pace of fibrosis can be accelerated by significant Ethanol use and infection with other hepatitis causing infections. Thus prognosis is improved by reducing or abstaining from alcohol and protecting the patient with vaccination against hepatitis A and B if they do not already have antibodies.

Elevated liver function tests (LFT) may be an indication of ongoing liver inflammation and future fibrosis which then can/will lead to cirrhosis, liver failure, possible hepato-cellular carcinoma and death . However in many individuals , the disease can progress with normal or only modestly elevated LFT's.

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You're Invited!

A Course for Physicians on Prevention of Violence Against Women

Submitted by Carol Quinlan, R.N., BScN

You are cordially invited to attend an Ontario College of Physicians Mainpro -C Course. This course will be available in Brockville September 2005. The date, time and location for this event is to be announced, so watch your mailboxes for more details. The course will be presented by two Ottawa area physicians and will discuss the issues of Violence Against Women and screening patients for abuse.

As many of you are aware a history of abuse can have a significant impact on your patients health status. Ask yourself the following questions: Do I have patients visiting my office with injuries that don't match the incident that they describe? Do I have patients who visit my office repeatedly, complaining of chronic pain? I've

done all the tests, but there is no pathology to explain the symptoms. Have you ever considered that the patient is a victim of abuse?

Abuse is a social issue with medical consequences. Family physicians are in an ideal position to identify and assist these individuals to find help by referring them to local community agencies that specialize in abuse issues. You can do more than heal the wounds. You can open the door for these patients to live free from violence and move on to a lifetime of health and well being not only for them but also for the entire family.

For more information on universal screening tools for woman abuse, contact Carol Quinlan, R.N., BScN at the Leeds, Grenville and Lanark Health Unit, 613) 283-2740 or at carol.quinlan@healthunit.org

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What is the treatment for Hepatitis C?

Successful treatment is a relatively new event and guidelines are constantly changing with new knowledge. This makes this emerging treatment course complicate. Today the best available therapy is with pegylated interferon A and oral ribavirin. It is administered for 24 weeks for genotypes 2 and 3 and with a success rate defined as a sustained virologic response (undetectable virus load) 6 months after the completion of therapy of 70-80%. For genotypes 1,4 & 6 therapy is given for 48 weeks with a response rate of 40-60%. The key problem is side effects which acutely are severe flu-like illness with each interferon injection, cytopenia related to ribavirin therapy; 10-20% develop depression and most have significant fatigue over time. In some patients, anaemia is so severe that erythropoietin is given to try to stimulate red blood cell formation.

Which patients should receive therapy?

Patients must be clinically stable, not actively using injection drugs and reliable to take their medication regularly

and attend appointments due to the significant toxicity. Evidence of active disease and progression of disease is required which often means a liver biopsy to evaluate the liver damage. Because of the side effects and fatigue, an assessment of whether a "wait and see" approach may be better for an individual patient is recommended. Minor changes especially if after a prolonged period of infection (usually determined by the risk factor history) denotes a slower progression and thus waiting for less toxic therapy may be appropriate. On the other hand advanced cirrhosis reduces the success rates.

Where can I get more information on Hepatitis C

Health Canada and the Canadian Liver foundation have information resources readily available. Because of the complexity of the decision making in this diseases at this time and the complications related to therapy a referral to a hepatitis clinic may be appropriate. The Ottawa Hospital offers 2 clinics, at the Civic Campus under Dr Linda Scully and at the General Campus under Drs Curtis Cooper and colleagues Gary Garber and Craig Lee.

Recommendations from Health Canada for Exclusive Breastfeeding and Introduction to Solids for Infants

Submitted by Jessica Reid, Dietetic Intern and Dianne Oickle, MSc, RD, Public Health Nutritionist

Recommendation:

“Exclusive breastfeeding is recommended for the first six months of life for healthy term infants, as breast milk is the best food for optimal growth. Infants should be introduced to nutrient-rich, solid foods with particular attention to iron at six months with continued breastfeeding for up to two years and beyond.” - Health Canada, 2004 (1)

As of 2004, Health Canada recommends exclusive breastfeeding for the first 6 months of an infant's life. (1) This is a change from the previous recommendation of exclusive breastfeeding from 4 - 6 months of life, which came from the 1998 document *Nutrition for Healthy Term Infants* (3). In 2001, the World Health Organization (WHO) revised their recommendations from four to six months of exclusive breastfeeding to six months. (2) After thorough research and consideration of WHO's evidence, Health Canada decided to align with WHO's recommendation of exclusive breastfeeding for the first six months of a healthy full term infant's life.

Exclusive breastfeeding, based on the World Health Organization's definition (2), refers to feeding only breast milk (including expressed breast milk) and allows the baby to receive vitamins, minerals or medicine. Water, breast milk substitutes, other liquids and solid foods are not included in this definition.

At six months of age, complementary solid foods should be introduced to an infant with special attention to iron-containing foods, such as an iron-fortified infant cereal. Iron-containing foods should then be followed by the addition of vegetables, fruits and meat and alternatives. Early introduction to solid foods may increase the infant's risk of developing allergies and infections, as well as predisposing them to obesity, arteriosclerosis and hypertension later in life. (3) The early introduction of infant cereal or pablum, whether spoon-fed or in a bottle, can increase the risk of choking and aspiration. (3)

Health Canada encourages all health professionals to communicate and promote at the national, provincial and community level:

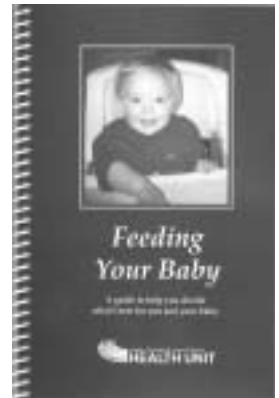
- 1) Exclusive breastfeeding for the first six months of an infant's life
- 2) Introduction of iron-rich complementary solid foods at six months of life

Special consideration may need to be given when applying the above recommendations to individuals. (1)

An infant feeding survey of residents of Leeds, Grenville, and Lanark counties in 2001 (6) showed that over half of women (56.3%) indicated that their doctor influenced their decision to introduce solid foods to their baby. As a physician, you are in a critical position to influence the infant feeding decisions of your clients and to encourage them to follow the most current guidelines so to optimize the health of their baby.

The Leeds, Grenville, and Lanark District Health Unit has

a resource on infant feeding and introduction of solids titled **“Feeding Your Baby: A guide to help you decide what's best for you and your baby.”** This resource is available **for distribution to your clients, free of charge.** To order copies, please contact Dianne Izatt, Pamphlet/Resource Coordinator, at 345-5685 ext 2331. Please allow 2-3 weeks turn around time to receive the resources. If you have any questions or concerns, please call the Health Unit at 345-5685 and ask to speak to a Registered Dietitian.



References

1. Health Canada, Exclusive Breastfeeding Duration: 2004 Health Canada Recommendation: http://www.hc-sc.gc.ca/hpfb-dgpsa/onpp-bppn/exclusive_breastfeeding_duration_e.pdf
2. World Health Organization, Promoting proper feeding for infants and young children. 2004. Geneva: <http://www.who.int/nut/inf.htm>
3. Canadian Paediatric Society, Dietitians of Canada and Health Canada. Nutrition for Healthy Term Infants, 1998. Ottawa, Minister of Public Works and Government Services.
4. Satter E. The feeding relationship: problems and interventions. *J Pediatr* 1990; 117:S181-9.
5. Health Canada, Duration of Exclusive Breastfeeding – Questions and Answers for Professionals: 2004 Health Canada: http://www.hc-sc.gc.ca/hpfb-dgpsa/onpp-ppn/exclusive_breastfeeding_qa_e.html
6. Gates, S. (2001). Infant Feeding Profile of Leeds, Grenville, and Lanark 2001. Leeds, Grenville, and Lanark District Health Unit.

REMINDER:

ADACEL (Diphtheria, Tetanus, Pertussis) Usage

Submitted by Margaret Hendriks, BScN, BA, RN, Vaccine Preventable Disease Program, Department of Clinical Services

Adacel, (Diphtheria, Tetanus, Pertussis) vaccine is now part of the publicly funded immunization schedule for the adolescent booster. **Please administer this vaccine when you are immunizing your teen population.**

It has been identified that the primary series of Pertussis that is provided in early infancy does not provide lifelong immunity. Therefore the Ministry of Health has implemented use of Adacel to help reduce the increasing incidences of adult and infant Pertussis in the population.

West Nile Virus

Submitted by Infectious Diseases: Prevention & Control Outbreak Management

Summer is approaching and mosquito season is here. As you are aware some mosquitoes carry West Nile virus and bites may lead to patients presenting to you for assessment with West Nile virus infection.

In 2004 there was 14 human cases of West Nile virus infection in Ontario and 29 cases across Canada. The majority of human cases were located in the southern region of Ontario with 1 human case in Ottawa that was not acquired locally. The Leeds, Grenville and Lanark region submitted 13 blood samples to be tested but none were positive for the virus.

Locally a risk assessment was performed on the need to use active mosquito control (pesticides). Based on previous surveillance data the risk of humans contracting the virus from our local mosquito population is low. Therefore, active pest controls will not be used in 2005 in the Leeds, Grenville and Lanark District Health Unit geographical area. The Health Unit in co-operation with municipalities will continue to monitor sightings of dead corvids and mosquito pools to aid in the early detection of West Nile virus in our communities.



The Ministry of Health and Long-Term Care has released the 2005 case definitions for reporting West Nile virus cases. The biggest change for this season is the renaming of West Nile Fever to West Nile Non-Neurological Syndromes. There are also specific definitions to characterize muscle weakness. The Ministry of Health and Long Term Care will be sending the case definitions to each physician in the province. Public Health Nurses will be visiting each emergency department to provide the updated surveillance and reporting tools. A new addition to the Ministry West Nile website will be the reporting to the media of probable or confirmed human cases. This information will be located at http://www.phac-aspc.gc.ca/wnv-vwn/mon_e.html#human.

The information that you as physicians can give your patients could include a variety of strategies they can use to decrease their risk of being bitten. Protective measures would include avoiding contact with mosquitoes especially at dawn and dusk, covering up, use of insect repellents and clean up around their homes and gardens especially removing standing water to reduce mosquitoes breeding grounds.