Medical Health Officers
UPDATE for Physicians
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Domperidone and Breastfeeding: Patient Safety Advisory

Insufficient milk production may lead to difficulty in initiating breast-feeding, an issue some mothers encounter for various reasons, such as after an elective caesarian section. Given the importance of breast milk in feeding, and immediate and long-term positive health impacts for newborns, infants, toddlers, and mothers, every effort should be made to ensure milk production of mothers.

Physicians often prescribe pharmaceuticals such as domperidone. Although approved for use as an antiemetic and motility agent, this drug has also been used off label to improve milk production.

In response to the recent Health Canada domperidone Patient Advisory (below), the IH Patient Safety Advisory Perinatal and Child Health Network recommended the following lactation management strategies:

Mothers receive all necessary support to achieve successful breastfeeding. This may include:
- Consultation with an IBCLC (International Board Certified Lactation Consultant), where available
- Use of a Breastfeeding Centre, where available
- Peer support such as Laleche League, where available
- Consultation with a Public Health Nurse
- Early skin to skin contact, to promote milk ejection, increase volume and help the infant to develop a healthy bioflora; this is particularly important in preterm infants.

Domperidone should never be used as the first approach to correct breastfeeding difficulties. It must not be considered unless all other factors which may result in insufficient milk supply have been dealt with and non-pharmacologic interventions used first, including:
- Correcting/addressing the baby's latch and suck
- Using breast compression and expressing milk after feedings
- Improving maternal hydration
- Avoiding pacifiers/soothers until milk supply and breastfeeding are well established.
- 8-12 feeds in 24hrs

Also important to consider prior to use of galactogogues are:
- Increasing frequency of breast feeding
- Pumping the breasts after each feed, followed by cup feeding the expressed milk

If these interventions do not improve the breast milk supply, domperidone may then be considered.

Further information: Breast feeding Advisory Council Co-chairs, Lea..Geiger@interiorhealth.ca; Patty.Hallam@interiorhealth.ca; Breastfeeding Community of Practice, Meggie.Ross@interiorhealth.ca, Barb.Henderson@interiorhealth.ca

Health Canada Alert 2012 Key Messages: The risk of serious abnormal heart rhythms or sudden death (cardiac arrest) may be higher in patients taking domperidone at doses higher than 30 milligrams a day or in patients more than 60 years of age. Domperidone should be used at the lowest possible dose that is right for you. If you have a heart condition with abnormal electrical activity of your heart or a heart condition such as heart failure or low blood levels of potassium or magnesium, domperidone should be used with caution. http://www.cbc.ca/news/health/story/2012/03/08/domperidone-maleate-drug-.html,

2012 Bugs and Drugs Antimicrobial Reference Guide

Physicians registered through the College of Physicians and Surgeons of British Columbia are eligible to receive a complimentary copy of the updated Bugs & Drugs Antimicrobial Reference book as either an iPhone application or in hardcopy. To order your copy, go to: http://app.fluidsurveys.com/s/BugsandDrugs/

Ticks, Lyme Disease & Tick Paralysis

While ticks are common in the Interior Health region, most are the Rocky Mountain Wood Tick (*Dermacentor andersoni)*, not shown to carry the lyme disease bacteria (*B burgdorferi*). Lyme disease carrying ticks (*Ixodes pacificus*) are more common in the coastal areas of BC; however, Lyme disease-carrying ticks may exist at low prevalence in the IH region. For newly infected persons, 70-80% will have as a first sign a small red bump at the site of the bite within several days. The redness spreads out to a circular rash over the following days, eventually resembling a target or "bull's eye" appearance. This "erythma migrans" (EM) rash in patients presenting in IH should prompt early antibiotic treatment for suspected Lyme disease. Although Lyme disease carrying ticks are less common in IH than the coast, most BC residents travel around the province frequently, and 60-80% of tick bites go unrecognized as people don't feel the bite. Early antibiotics on the basis of the EM rash is appropriate. Acute and convalescent serology are worthwhile for lab-confirmation but are often negative even with true Lyme infection, since early treatment may blunt seroconversion.

Every year in BC there are usually 1 to 3 cases of suspected human "tick paralysis" reported to BCCDC. Most occur in younger children and elderly early in the spring from the Rocky Mountain Wood tick and the majority are from IH. Tick paralysis is characterized by acute, ascending, flaccid paralysis. Examination often reveals an attached tick. Once the tick is removed, paralysis usually resolves within 24 hours. There is no test to confirm tick paralysis as the neurotoxin produced by the tick and its mechanism of action are not fully understood.

The recommended method of tick removal is to grasp the tick by its mouth as close to the skin as possible with tweezers or other device and pull outwards, avoiding injecting the tick's stomach contents into the skin. Smothering methods for tick removal are ineffective and increase risk of injection of infected material into the client.

NOTE: If a physician wishes a tick tested for a zoonotic disease, contact the BC Centre for Disease Control (BCCDC) Parasitology at (604) 707-2629. For questions regarding testing of humans, call BCCDC Zoonotic Diseases and Emerging Pathogens at (604) 707-2628. Ticks are not forwarded from Public Health Offices and patients should not be directed to PH offices with ticks.

Bats & Rabies

Bats are the only BC animal species endemically infected with rabies. A bat that comes into physical contact or bites a person suggests a sick bat. Of such bats, when captured and submitted, 5-10% test positive for rabies. Any human physical contact with a bat should be referred to the IH Communicable Disease (CD) Unit (toll-free 1-866-778-7736), or after hours to the MHO on-call, for assessment and probable rabies vaccine prophylaxis (RPEP). Any animal bites of IH residents occurring outside BC or overseas, should also be referred for assessment. Animal bites incurred by intentionally hand feeding mice, squirrels, skunks, racoons or other wild animals are considered 'provoked' and do not warrant RPEP. Bites by domestic pets or stray cats and dogs within BC do not usually warrant RPEP. However, if you feel an animal bite occurrence is unusual, or the animal was unusually aggressive or ill, feel free to consult us. The client can also be referred to a local Public Health Unit's Environmental Health Officer for assessment.

Mosquitoes & West Nile Virus (WNv)

Since 2009, IHA has experienced positive West Nile virus indicators showing that the virus has become established in the southern and central Okanagan. Several WNv cases in IH residents occur most summers from travel to adjoining provinces or states experiencing heavier WNv mosquito activity. Interior Health conducts active surveillance through mosquito trapping & testing and monitoring of Corvid (crows, jays, magpies) bird mortality. All cases of WNv reported in Interior Health residents are interviewed by the CD Unit to determine the source of infection. The attending physician is also interviewed to determine if symptoms meet the case definition for WN Neurological Syndrome (WNNS). Testing for WNv is by the Provincial Health Services Authority (PHSA)-BCCDC Laboratory. Serology and PCR are done on blood collected in both a SST (gold top) and EDTA (purple top) blood tubes; PCR is also done on CSF. Acute and convalescent serology, collected 10-14 days later, are required to confirm an infection of WNv. Positive PCR can confirm a case; however, negative PCR in CSF alone does not rule out infection, and serology will be needed for confirmation. Additional confirmatory tests include isolation of WNv in tissue, blood, CSF or other body fluid, or demonstration of WNv antigen in tissue. The CD Unit and/or MHO can be called to help interpret lab results. A four-fold increase in WNv neutralizing antibody titres in paired serology, or seroconversion along with the clinical criteria confirms a case of WN Non-NS ("West Nile fever") or WNNS.

Mice & Hantavirus Pulmonary Syndrome (HPS)

Although Hantavirus is an extremely rare infection, there have been 8 cases reported within Interior Health since 1994. Exposure to hantavirus is greatest when people work, play, or live in closed spaces where rodents, specifically deer mice, are actively living. Most patients give a history of cleaning dusty outbuildings and/or disturbing known rodent/mice burrows. HPS is an acute viral disease that begins with flu-like symptoms, abdominal pain and cough, progressing to difficulty breathing and pulmonary edema. Patients with symptoms compatible with HPS should be tested for the virus even if they do not report any exposure to the primary vector (deer mice). Diagnosis is made by serological testing for hantavirus antibodies. There is no known antiviral treatment for HPS and supportive measures are usually required.