

**Ontario Agency for Health Protection and Promotion
Public Health Laboratories
Ontario Ministry of Health and Long-Term Care**

September 3, 2008

***Listeria monocytogenes*
A Clinical Practice Guideline**

Background: Listeriosis is a foodborne illness that usually presents as a self-limited syndrome with malaise, fever, and diarrhea with no further untoward outcome. In a minority of cases, particularly in immunocompromised, patients at the extremes of age (neonates and elderly) and pregnant women, septicaemia and meningitis can occur, accompanied by fetal loss in the pregnant woman.

Epidemiology: *Listeria monocytogenes* is widespread in nature, and commonly found in soil, decaying vegetation, and water. **It is also commonly found in humans:** it has been isolated from the stools of 1-5% of healthy adults. It is not uncommon for foods such as raw vegetables, raw milk, unpasteurized cheese (especially soft cheeses), and meats (especially pâté) to be contaminated – ingestion of *L. monocytogenes* is likely a common occurrence. Ingestion of suspect food does not necessarily result in infection with Listeria.

Mother to child transmission (transplacentally or via the birth canal) may occur, and transmission has been described from ill infants in nurseries,⁴ but human to human transmission has otherwise not been described.

Pregnant women and their babies account for 30% of cases of listeriosis; almost all remaining cases occur in immunosuppressed patients (such as hematologic malignancy, AIDS, organ transplantation, persons receiving chemotherapy or corticosteroid therapy). Occasionally previously healthy persons can develop invasive disease, particularly if over 60 years of age. The organism has a predilection for the central nervous system and the placenta.

Mean **incubation period** is not well established. It likely varies depending on the concentration of Listeria in the food. In the largest outbreak of Listeria described the median incubation period was 31 days (range 11 to 70 days). In other Listeria outbreaks the incubation period has ranged from 3-70 days.

Non-invasive Clinical Syndromes:

- **Febrile Gastroenteritis:** Ingestion of contaminated food can result in a febrile, self-limited gastroenteritis. The incubation period is usually short(range 6 hours to 10 days). This non-invasive illness is self limiting and requires no therapy in persons in low risk groups.
- **No testing is recommended for asymptomatic persons**, whether or not they are in a high risk group or there is a history of ingestion of foods known to be contaminated with *L. monocytogenes*.
- No stool testing is recommended for cases of isolated gastroenteritis in healthy adults unless they are in a specific high risk group as detailed above (pregnant, immunocompromised, neonates).
- **Isolated gastroenteritis:** Otherwise healthy persons with suspected listeria gastroenteritis require supportive therapy alone for this self-limiting illness, with no indication for antimicrobial therapy. There is no clear data to guide therapy of isolated gastroenteritis in high risk patients (pregnant, immunocompromised, neonates). If treatment is considered, it should be done in consultation with an infectious diseases physician.
- Patients presenting with minor or no symptoms with a history of consumption of recalled meat should be presented with the Listeria fact sheet presented at <http://www.inspection.gc.ca/english/fssa/concen/cause/listeriae.shtml> and cautioned about the signs of invasive disease.

Invasive clinical syndromes include

- Infection in pregnancy
- Neonatal infection
- Bacteremia
- Central Nervous System Infection

Further information on diagnosis and management of these syndromes is available at:

http://www.oahpp.ca/resources/documents/clinicalguidelines/clinical%20guidelines_full%20version_updated%20FINAL_030908.pdf