

Listeriosis in pregnancy

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1 Invasive listeriosis (bacteremia or meningitis) in pregnancy leads to major fetal consequences, including fetal loss, neonatal meningitis, and neonatal death^{1,2}

Perinatal listeriosis can be asymptomatic or present with gastrointestinal symptoms, myalgias, fevers, sepsis, and acute respiratory distress syndrome.^{1,3} In pregnancy, 29% of patients with invasive listeriosis experience fetal loss or neonatal death.²

2 Pregnant people should avoid foods at high risk of *Listeria monocytogenes* contamination^{2,4}

Whereas certain foods have higher contamination risk (e.g., unpasteurized milk and cheeses, luncheon meats, refrigerated meat spreads, and pre-made salads),^{2,5} it is important to also be aware of Health Canada recalls (<https://recalls-rappels.canada.ca/en>). Most exposures do not result in symptoms, but listeriosis is 20 times more common in pregnancy.^{5,6}

3 In asymptomatic patients who have ingested possibly contaminated foods, investigations or treatment are not indicated^{2,5}

Because the incubation period is up to 70 days, listeriosis can present 2–3 months after exposure.⁵ If symptoms develop, patients should be managed based on the recommendations below.

4 In afebrile patients presenting with mild gastroenteritis or flu-like symptoms with possible exposure to *L. monocytogenes*, investigations and management are guided by expert opinion²

Whereas expectant management is reasonable, obtaining blood cultures² and/or starting a 14-day course of oral amoxicillin (500 mg 3 times daily)^{4,5} could be considered. Patients with resolved symptoms should be treated as asymptomatic.

5 In febrile patients with possible exposure to *L. monocytogenes*, blood cultures should be immediately drawn and high-dose ampicillin initiated, with electronic fetal heart rate monitoring^{2,4}

Intravenous ampicillin (6–12 g/d) should be given for 14 days with consideration for synergistic gentamicin.² Trimethoprim with sulfamethoxazole should be used in patients with penicillin allergy.^{2,4} If delivery occurs, placental culture and pathology should be completed. Pediatric care providers should be informed to consider empiric antibiotics, laboratory investigations, cerebrospinal fluid sampling, and imaging.²

References

1. Wang Z, Tao X, Liu S, et al. An update review on listeria infection in pregnancy. *Infect Drug Resist* 2021;14:1967-78.
2. Committee Opinion 614: Management of pregnant women with presumptive exposure to listeria monocytogenes. *Obstet Gynecol* 2014;124:1241-4.
3. Craig A, Federspiel J, Wein L, et al. Maternal and obstetric outcomes of listeria pregnancy: insights from a national cohort. *J Matern Fetal Neonatal Med* 2022;35:10010-6.
4. Palasanthiran P, Starr M, Jones C, et al., editors. *Management of perinatal infections, 3rd edition*. Sydney (AU): Australasian Society for Infectious Diseases; 2022:1-103.
5. Khsim IEF, Mohanaraj-Anton A, Horte IB, et al. Listeriosis in pregnancy: an umbrella review of maternal exposure, treatment and neonatal complications. *BJOG* 2022;129:1427-33.
6. Khalil A, Samara A, O'Brien P, et al. Listeria outbreaks cause maternal and perinatal mortality and morbidity: We must do better. *Lancet Microbe* 2023;4:e206-7.

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