

onset sepsis is hypothesized to result from in utero infection because it is typically diagnosed within 48 h after birth and is often associated with prematurity, whereas late-onset meningitis is thought to result from infection acquired at or soon after birth because it is typically diagnosed at ~2 weeks of age in full-term infants. A study of 128 pregnancy-associated listeriosis cases found that 47 (62%) of 76 ill neonates had early-onset disease. The case–fatality rate for neonatal listeriosis is 10–50%.

## ■ DIAGNOSIS

Because symptoms of listeriosis overlap with those of other infections, a high index of suspicion can facilitate timely diagnosis. Pregnant women with suspected listeriosis should have blood drawn for cultures, although blood cultures are positive only about half the time. Isolation of *L. monocytogenes* from a normally sterile site, such as blood, CSF, amniotic fluid, placental tissue, or fetal tissue, is diagnostic. *Listeria* must be distinguished from other gram-positive rods, especially diphtheroids. *L. monocytogenes* can be isolated from sterile specimens on routine medium; selective enrichment medium (such as PALCAM *Listeria* Selective Agar or Oxford Agar) enhances the capacity for isolation of the organism from nonsterile specimens, such as stool. Stool culture is not indicated in the evaluation of invasive listeriosis; culture on selective medium can be helpful for outbreak investigations of febrile gastroenteritis. Commercially available multiplex polymerase chain reaction panels for CSF specimens include *L. monocytogenes* as a target and may be a useful adjunct to culture. Matrix-assisted laser desorption/ionization time-of-flight (MALDI-TOF) mass spectrometry can rapidly identify an isolate as *L. monocytogenes*. Whole-genome sequencing has been a valuable tool for solving outbreaks of listeriosis, including a nosocomial outbreak associated with ice cream served in hospital milkshakes.

## TREATMENT

### Infections Caused by *Listeria monocytogenes*

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