

Increase in cases of *Listeria meningitis*:

Clinicians should include ampicillin + gentamycin in empiric treatment of adult meningitis

The NICD, NHLS, private and public sector laboratories have noted an increase in cases of meningitis due to *Listeria monocytogenes* across South Africa over the last few months (Figure 1) with over 365 cases documented this year to date. The largest age group affected are neonates with 128 cases (35%), Figure 2), but the majority of cases have occurred in adults 25 years and older (193/365, 53%). Typically, pregnant women and persons with underlying immunocompromising conditions, including HIV, transplant recipients, those on immunosuppressive therapy and malignancy, are at risk for *Listeria meningitis*, however clinicians report that cases have been occurring in adults without overt immunocompromising conditions. The NICD together with other role players is investigating the cause of the outbreak, which is likely to be contaminated foodstuffs.

Figure 1. Number of patients from whom *Listeria monocytogenes* has been isolated by month in 2017, as of 24 October 2017, (n=365)

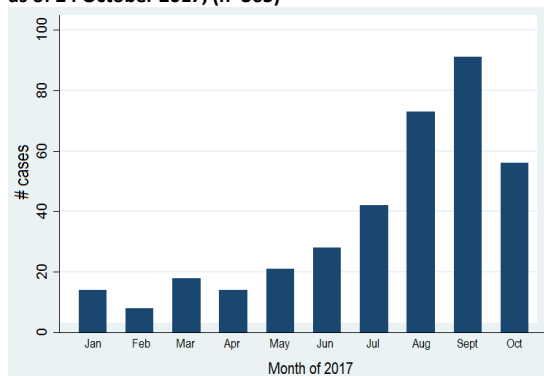
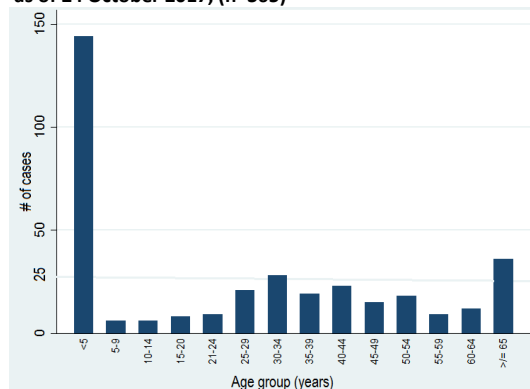


Figure 2. Number of patients from whom *Listeria monocytogenes* has been isolated by age category, as of 24 October 2017, (n=365)



Listeria monocytogenes is intrinsically resistant to cephalosporins, and so the usual empiric treatment for meningitis in adults – commonly a 3rd generation cephalosporin, will not be effective. To date, all *Listeria* isolates remain susceptible to ampicillin and gentamicin. In view of the increase in cases, the NICD advises that **all adults who present with signs and symptoms of meningitis be initiated on a third generation cephalosporin AND ampicillin plus gentamicin, at doses appropriate for the treatment of meningitis**. Adults with suspected meningitis should receive 3g ampicillin 6 hourly *ivi* for 21 days (2-4 weeks) with gentamicin 3mg/kg *ivi* in 3 divided doses (i.e. 1mg/kg 8 hourly) for at least the first 7-10 days, in addition to other broad spectrum antibiotic cover. Gentamicin should be given 8 hourly to enhance the synergistic effect with ampicillin. Penicillin-allergic patients should be treated with intravenous cotrimoxazole, or vancomycin plus gentamicin. If *Listeria monocytogenes* is isolated, treatment should be given for at least a full two-week period, regardless of the site of infection (blood stream or CNS). Empiric treatment for suspected neonatal meningitis should continue to include ampicillin and gentamicin.

Should clinicians identify a case, the NICD would value your assistance with completion of a case-investigation form to assist with establishing implicated foodstuffs. The form, and additional information on listeriosis can be obtained on the NICD website at www.nicd.ac.za, under 'Listeria' in the Diseases A-Z' section. Completed case investigation forms can be submitted to outbreak@nicd.ac.za. For clinical enquiries please call the NICD hotline at 082-883-9920.