

SITUATION UPDATE ON LISTERIOSIS OUTBREAK, SOUTH AFRICA

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Summary

- The source of the outbreak has been identified as ready-to-eat processed meat products manufactured at Enterprise Foods' Polokwane production facility
- The recall of implicated food products was announced on 04 March 2018. Whilst cases continue to decline, it is expected that some new outbreak-related cases could still be reported, for the following reasons:
 - the incubation period of listeriosis can be up to 70 days
 - the implicated food products have a long refrigeration shelf life, and it is possible that despite the recall some products were not removed from retail/home settings, and consumption might occur
 - the possibility of cross-contamination of other types of foods in the retail or home setting may result in additional cases
- 43 laboratory-confirmed cases were reported since the recall on 04 March 2018.
- Outcome data is now available for 68% (691/1011) of cases, of which 28% (193/691) died.

As of 09 April 2018, a total of 1011 laboratory-confirmed listeriosis cases have been reported to NICD since 01 January 2017 (Figure 1). Most cases have been reported from Gauteng Province (59%, 592/1011) followed by Western Cape (12%, 125/1011) and KwaZulu-Natal (7%, 72/1011) provinces. Cases have been diagnosed in both public (64%, 652/1011) and private (36%, 359/1011) healthcare sectors. *Listeria monocytogenes* was most commonly isolated/detected on blood culture (73%, 733/1011), followed by CSF (21%, 213/1011). Where age was reported (n=985), ages range from birth to 93 years (median 18 years) and 41% (418/1011) are neonates aged ≤28 days (Figure 2). Of neonatal cases, 96% (402/418) had early-onset disease (birth to ≤6 days). Females account for 56% (549/979) of cases where gender is reported. Final outcome data is available for 68% (691/1011) of cases, of which 28% (193/691) died.

Children with listeriosis

A number of recent queries and misconceptions regarding the number of listeriosis cases in children have arisen. Table 1 provides details of laboratory-confirmed cases of listeriosis in children. Since 01 January 2017, a total of 418 neonates aged ≤28 days and 69 children aged 1 month – 14 years with laboratory-confirmed listeriosis have been reported. Since the recall on 04 March 2018, there have been 24 new laboratory-confirmed cases in the ≤28 days age group and 3 new laboratory-confirmed cases in the 1 month – 14 years age group. Since 01 January 2017, a total of 81 deaths in neonates aged ≤28 days and 10 deaths in children aged 1 month – 14 years are confirmed.

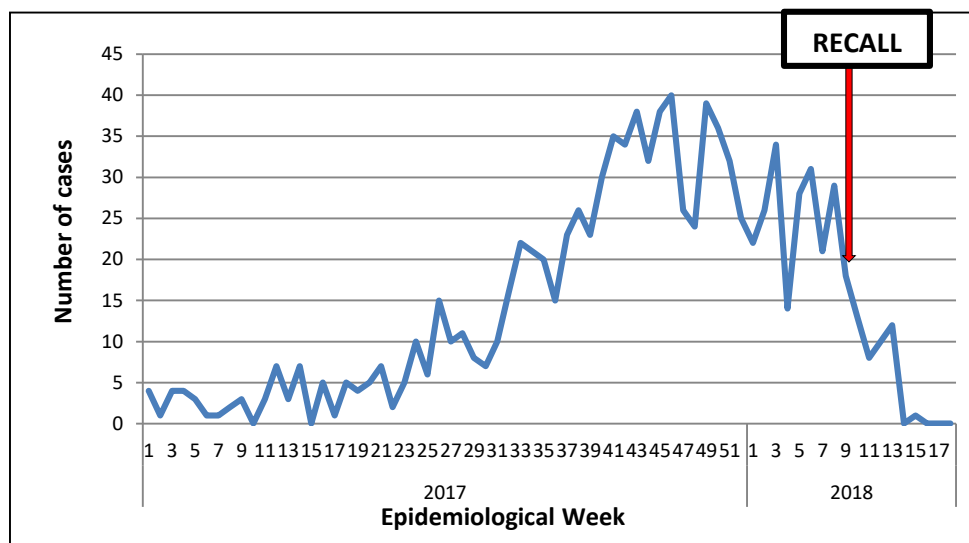


Figure 1: Epidemic curve of laboratory-confirmed listeriosis cases by epidemiological week and date of sample collection, South Africa, 01 January 2017 to 09 April 2018 (n=1011)

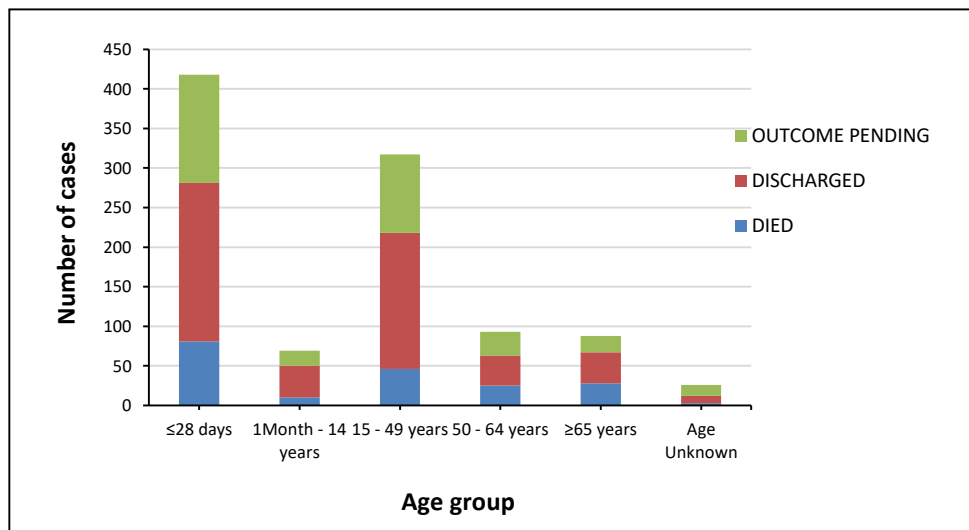


Figure 2: Age distribution and outcome of laboratory-confirmed listeriosis cases, South Africa, 01 January 2017 to 09 April 2018 (n=1011)

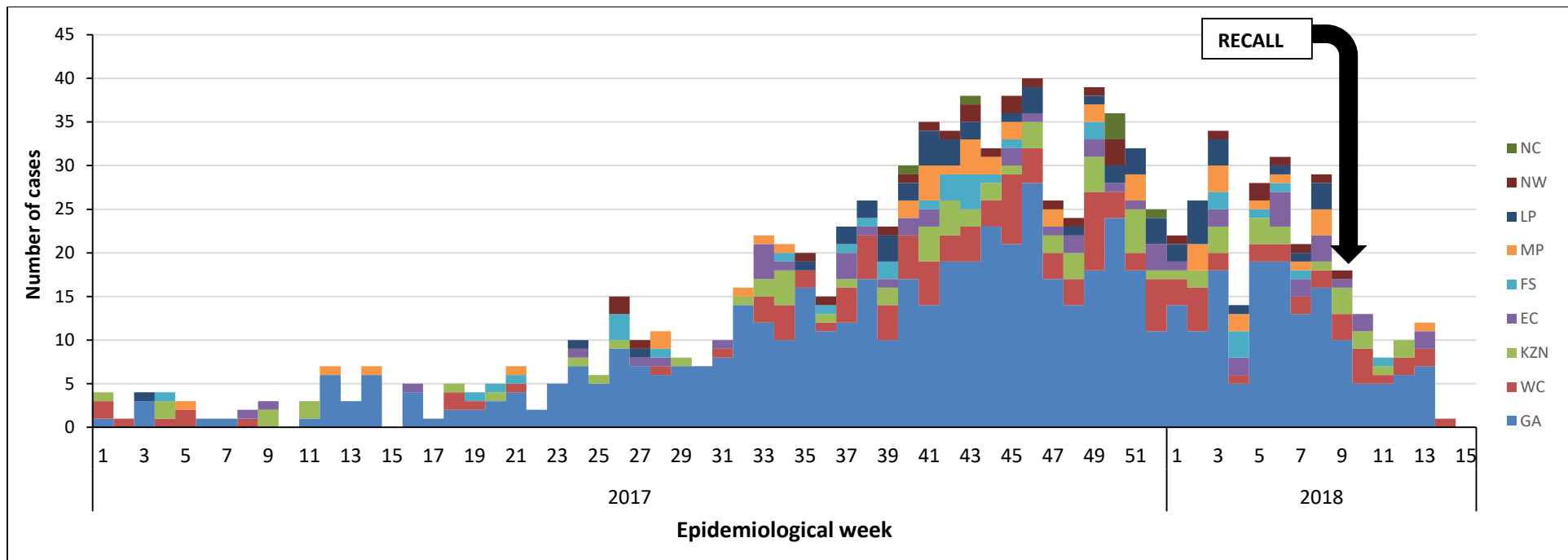


Figure 3: Epidemic curve of laboratory-confirmed listeriosis cases by epidemiological week and date of sample collection and province, South Africa, 01 January 2017 to 09 April 2018 (n=1011)

Table 1. Laboratory-confirmed listeriosis cases and deaths in children by age group, South Africa

Age group	Total number of cases (01 January 2017 – 09 April 2018)	Number of deaths (01 January 2017 – 09 April 2018)	Number of new cases since recall (04 March 2018 – 09 April 2018)
≤28 days (neonate)	418	81	24
1 month – 14 years	69	10	3

- All healthcare workers are requested to complete case investigation forms (CIFs – available on the website) for case-patients with listeriosis, and submit these to the NICD (outbreak@nicd.ac.za).
- Clinical listeriosis management guidelines are available on the website (www.nicd.ac.za).
- Where clinicians suspect listeriosis but specimens (including CSF and blood) are culture negative, a polymerase chain reaction (PCR)-based test can be performed at the NICD. PCR can also be performed on placenta samples for investigation of stillbirths/miscarriages. Please contact the Centre for Enteric Diseases on (011) 555 0343 for further details
- The NICD continues to operate its 24-hour hotline for healthcare workers.

Note:

- Case data is the best available at time of publication
- Due to the inherent lag in laboratory reporting, case numbers are likely to change and trends must be interpreted with caution.