

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. However, it is expected that new outbreak-related cases will continue to 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
- A total of 37 laboratory-confirmed cases are reported since the recall on 04 March 2018.
- The number of laboratory-confirmed cases per week are declining since the recall.
- Outcome data is now available for 69% (689/999) of cases, of which 28% (191/689) died.

As of 03 April 2018, a total of 999 laboratory-confirmed listeriosis cases has been reported to NICD since 01 January 2017 (Figure 1). Where age was reported (n=973), ages range from birth to 93 years (median 18 years) and 42% (412/973) are neonates aged ≤28 days (Figure 2). Of neonatal cases, 96% (396/412) had early-onset disease (birth to ≤6 days). Females account for 56% (542/967) of cases where gender is reported. Most cases have been reported from Gauteng Province (59%, 586/999) followed by Western Cape (12%, 123/999) and KwaZulu-Natal (7%, 72/999) provinces (Figure 3). Cases have been diagnosed in both public (64%, 644/999) and private (36%, 355/999) healthcare sectors. *Listeria monocytogenes* was most commonly isolated/detected on blood culture (72%, 723/999), followed by CSF (21%, 211/999). Final outcome data is available for 69% (689/999) of cases, of which 28% (191/689) died.

A total of 547 clinical *Listeria monocytogenes* isolates have undergone whole genome sequencing since 01 January 2017. Of these, 92% (502/547) are the sequence type 6 (ST6) outbreak strain.

A total of 37 laboratory-confirmed cases are reported since the recall on 04 March 2018. Of these 37 cases, 19 have been interviewed so far. Thirteen of the 19 patients interviewed reported eating polony in the month prior to falling ill.

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.

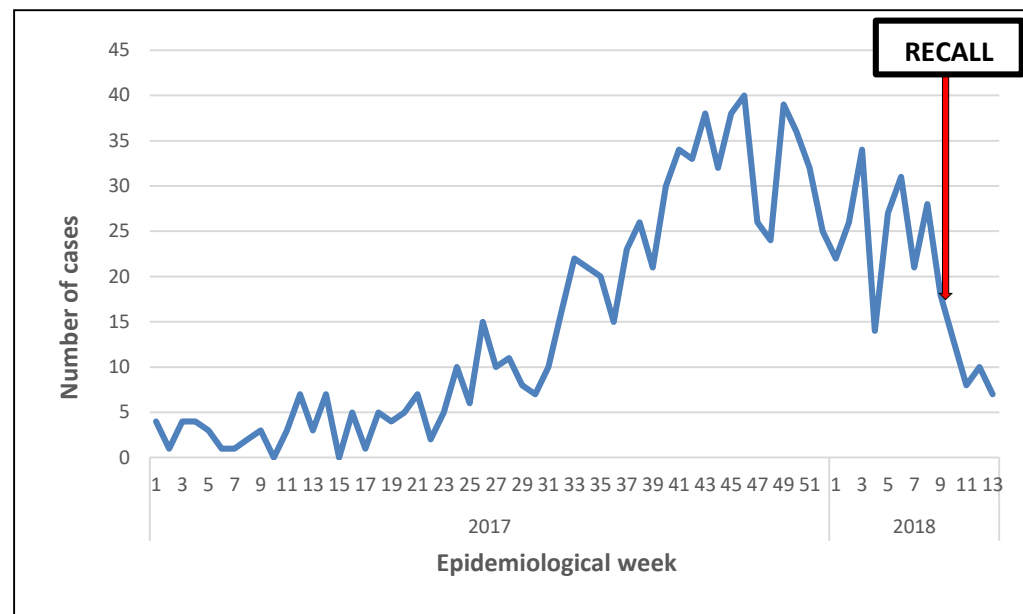


Figure 1: Epidemic curve of laboratory-confirmed listeriosis cases by epidemiological week and date of sample collection, South Africa, 01 January 2017 to 03 April 2018 (n=999)

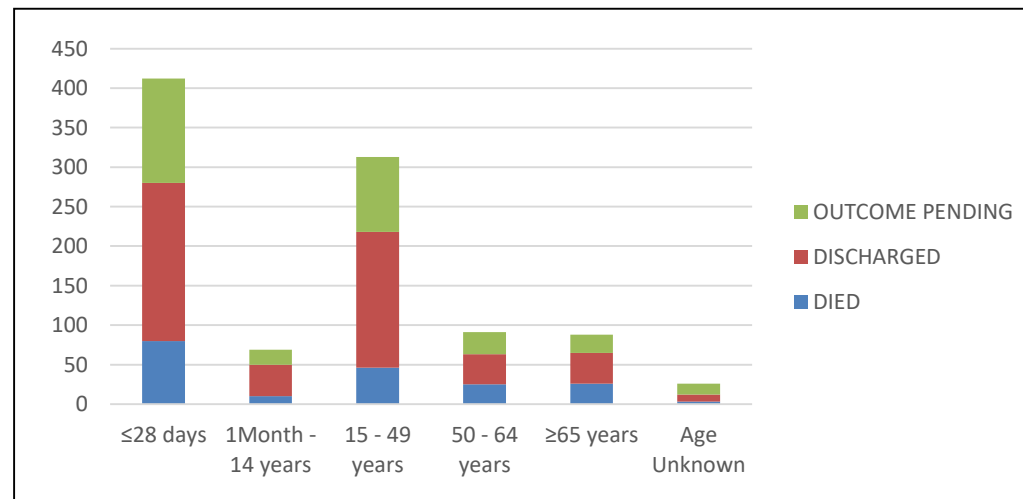


Figure 2: Age distribution and outcome of laboratory-confirmed listeriosis cases, South Africa, 01 January 2017 to 03 April 2018 (n=999)

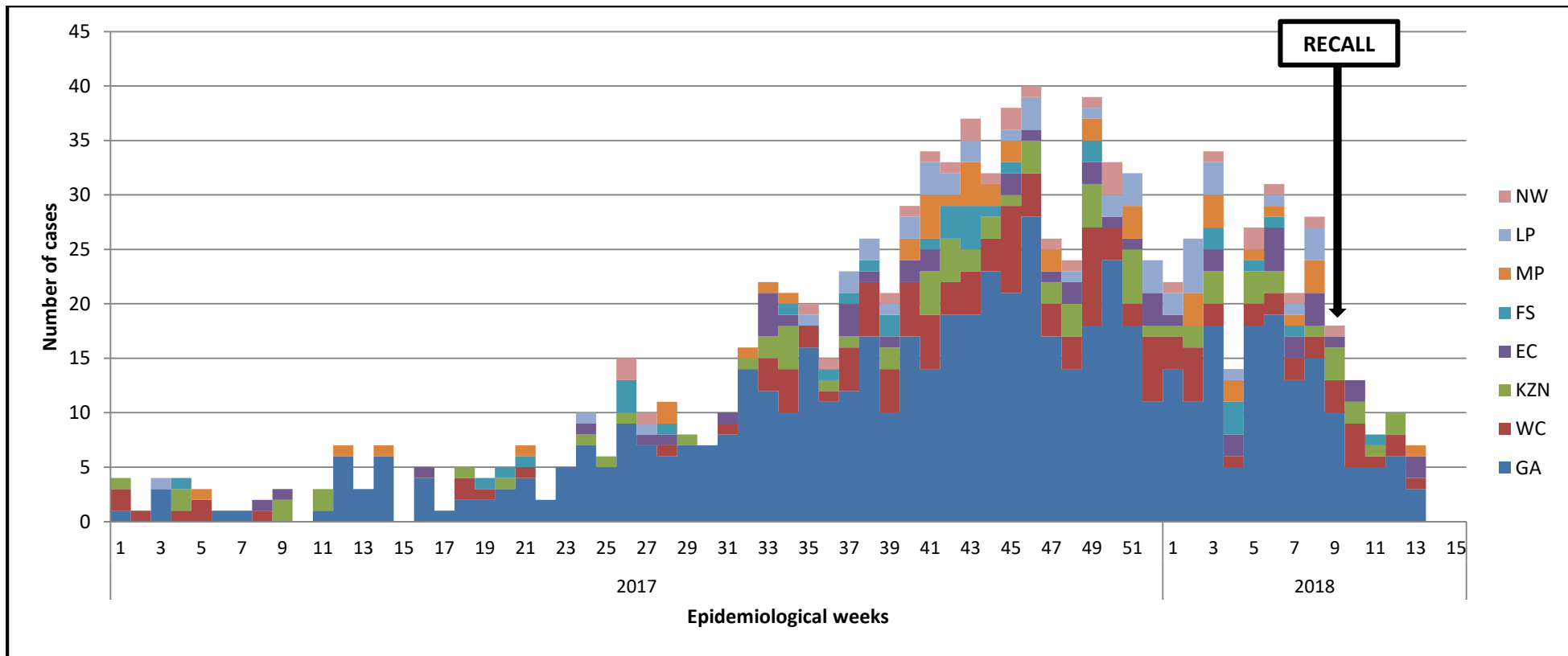


Figure 3: Epidemic curve of laboratory-confirmed listeriosis cases by epidemiological week and date of sample collection and province, South Africa, 01 January 2017 to 03 April 2018 (n=999)

- 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.