



NATIONAL PUBLIC HEALTH EMERGENCY RESPONSE PLAN

LISTERIOSIS 2017/18

23 April 2018

Background

The *Listeria* outbreak in South Africa is the largest ever documented globally. Since 1 January 2017 to 14 April 2018, 1011 laboratory-confirmed listeriosis cases have been reported to NICD. Amongst 691 cases with known outcome, 193 (28%) have died. Listeriosis is caused by eating food contaminated with the bacterium *Listeria monocytogenes* (*Lm*). Infection presents with bacteraemia, meningitis or fetal loss/neonatal sepsis, and has a mortality ranging from 15-40%. Prevention of contamination of processed food with *Lm* and prevention of growth of *Lm* in food is critical. The organism is ubiquitous in the environment and can therefore be found on a number of raw foods. It can survive in a wide range of environmental conditions including high salt concentrations, and temperatures between -2 to +42°C. Through careful epidemiological and molecular investigations tools, the NICD and NDoH traced the outbreak strain (*Lm* ST-6) to a processed meat plant owned by Tiger Brands (the Enterprise® facility) and also identified *Lm* at a RCL-owned facility (Rainbow®). On 4 March 2018 the Minister of Health, Dr Aaron Motsoaledi announced a recall of all processed meat produced at these facilities. Since the recall, the number of cases of listeria detected per week has declined. However, as expected, cases will continue to occur because of the long incubation period of listeriosis, and because background sporadic cases of listeriosis will always occur.

Challenges raised by the listeriosis outbreak

While the source of the listeriosis outbreak has been identified and case numbers are declining, the outbreak has highlighted potential weaknesses in both legislative and policy framework regarding food safety, and regulatory/enforcement systems to ensure consistent and sound implementation of food safety norms and standards. In addition, because affected foodstuffs were exported to at least 15 other African countries, cases may occur outside of South Africa and further, lead to disruption of trade. Traceability of the internationally distributed implicated products has been challenging.

South African and international response to the outbreak

The outbreak was detected and responded to by the NICD together with NDoH and provincial authorities who together identified the source and after the Minister's announcement, facilitated the recall of affected foodstuffs. Subsequently, the South African government together with the WHO has decided to strengthen the response to the outbreak in line with the International Health Regulations. The DG of the NDoH has activated a full-time Emergency Operations Centre and together with the WHO, and created a multisectoral incident management team (IMT) that will work full-time to address the challenges raised by the listeriosis outbreak in a focused, intentional manner

The multisectoral incident response team (IMT)

The primary role of the IMT is to draft and implement a co-ordinated, multisectoral response to the challenges raised by the listeria outbreak. Members of the IMT have been drawn from stakeholders across the public sector and include personnel from the National Department of Health (Food Safety, Communicable Diseases Cluster, Environmental Health), the National Institute for Communicable Diseases (Outbreak Response Unit, Centre for Enteric Diseases), the Department of Agriculture, Forestry and Fisheries (DAFF), the Department of Trade and Industry, South African Local Government Association (SALGA), the National Consumer Commission (NCC), the National Regulator for Compulsory Specifications (NRCS) and the South African Military Health Services (SAMHS). Other stakeholders have also been consulted in drawing up of the IMT.

The aim and objectives of the listeriosis response plan.

The aim of the plan is to control (have we not already controlled it?) and end the current listeriosis outbreak in South Africa and to strengthen systems to detect and prevent further outbreaks. The plan is formulated in line with the International Health Regulations (IHR, 2005) and has the following objectives:

1. To strengthen multi-sector collaboration and co-ordination to achieve the aim of the IRM by creation of a multi-sectoral incident management team
2. To enhance human health systems by strengthening listeriosis surveillance to ensure timely detection and response to clusters and outbreaks, including strengthening NHLS lab capacity to support food and environmental testing for listeriosis
3. To enhance environmental health systems by strengthening food safety monitoring of food production facilities and through monitoring the recall and disposal of implicated foodstuffs.
4. To expedite legislation reform by reviewing and enhancing existing food safety legislation
5. To enhance risk communication activities by improving and enhancing dissemination of information on food safety guidelines to the public and to facilitate behaviour change amongst public and food manufacturers towards improved food safety practices

The strategy adopted by the response plan

The response plan utilises an incident management approach based on WHO principles outlined in their 'Emergency response framework'. This approach has been adapted to the requirements of South African listeria outbreak. The IMT will be lead and supported by an incident manager and technical experts from the WHO. The IMT will be based at the NICD in Sandringham, and co-ordinated through the Emergency Operations Centre there. In addition, the response strategy utilises a phased approach as follows:

- **Ongoing activities:** Listeriosis surveillance (detection and investigation of cases), risk communication activities; food safety legislative review and reform. To inform and support these activities, the following will be implemented:
- **Phase 1:** Identification of at-risk food processing plants, development of material and training of staff to support inspections of facilities
- **Phase 2:** Inspection of at-risk food processing plant and strengthening of district environmental health practitioners
- **Phase 3:** reporting and consolidation of health system strengthening activities, and after action review.

Timelines, financial support and expected outputs of the response activities

It is anticipated that the plan will take 3-4 months to achieve the aim and objectives. However, progress as measured through process indicators for each activity, will be subject to continual review and timelines may change. Progress towards achieving the aim and objectives of response plan will continuously be presented to the Incident Lead and stakeholders, who will recommend to the DG the deactivation of the response and resumption of routine activities. Financial support for the IMT will be sourced through the South African government, WHO and other relevant donors.

Conclusion

The scale of the listeriosis outbreak is unprecedented globally, and has resulted in suffering and anxiety amongst those infected and affected. This incident response plan supports and build on efforts to control the listeriosis outbreak to date. The activities to be undertaken by the IMT will also strengthen surveillance systems to prevent further outbreaks, enhance existing regulatory and enforcement systems in the food industry and will strengthen existing food safety legislation. Ultimately the response plan is an investment in the immediate and longer term health and well-being of all South Africans and that of citizens of our neighbouring countries and trade partners in the region.