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SIXTH UPDATE ON LISTERIOSIS OUTBREAK IN SOUTH AFRICA

By Dr Lucia Anelich

Register here for the SAAFoST Listeriosis Workshop on 14 February 2018. Not to be missed!

The NICD has provided the latest update on the listeriosis outbreak in South Africa – attached to this note as at 25 January 2018. The outbreak is across all nine provinces. The cases have jumped from 767 on 16 January to 820 (53 more), although 13 are retrospective to 2017. One more death has been reported - total now 82.

DATE **CONFIRMED CASES** DEATHS 05 December 2017 550 36 20 December 2017 647 60 03 January 2018 717 61 12 January 2018 748 67 16 January 2018 767 81 820 82 25 January 2018

In summary to date:

The strain that is **still most frequently isolated** belongs to sequence type ST6. This continues to indicate that these isolates originate from a single source, most likely a food product on the market or a series of food products produced in the same manufacturing environment.

Other statistics in summary (see more in NICD report):

Outcome data is available for 238 (only 3 more since 16 January 2018) of the 820 cases. Of these 238 cases, 82 deaths have been reported which maintains the mortality rate at 34%, as for 16 January 2018. This rate is currently (this will likely change as the disease progresses and more cases are traced) 9-14% higher than general mortality rates reported in other countries i.e. 20-25%.

The source of the outbreak remains unknown. However, a large amount of testing is occurring in industry at all levels to try to find the source.

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Dr Anelich stated in previous communiques that this was **the worst documented listeriosis outbreak in global history**. **It remains so**. Her international colleagues in European countries, Canada, Australia and the USA concur.

This communique, further information and interviews conducted can be found on the Anelich Consulting website at <u>www.anelichconsulting.co.za</u> and by clicking on links provided.

See <u>http://anelichconsulting.co.za/index.php/faq</u> for regularly updated answers to Frequently Asked Questions.

Contact Dr Lucia Anelich at <u>la@anelichconsulting.co.za</u> for further assistance and scientific advice based on international best practice.

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Listeriosis

Listeria monocytogenes is the primary cause of the illness called listeriosis. The organism is an **environmental pathogen** and is found in soil, water, sewage, and decaying vegetation. It can be readily isolated from humans, domestic animals, raw agricultural commodities, and food packing and processing environments (particularly cool damp areas that can contaminate food). It can cause two types of illnesses:

- A mild, non-invasive illness (called listerial gastroenteritis), which shows typical symptoms of gastroenteritis i.e. fever and diarrhoea. This form of the illness is rarely diagnosed and usually passes quickly without severe effects;
- A severe, invasive illness (called listeriosis). Listeriosis is characterized by a relatively high mortality rate i.e. ~20-25% compared to illnesses caused by most other foodborne pathogens (<1% for *Salmonella* or *E. coli* O157). In the invasive form of the illness, the organism has moved beyond the gut and has infected other parts of the body.

Persons who have the greatest risk of experiencing listeriosis due to consumption of foods contaminated with *L. monocytogenes* are **pregnant women and their foetuses**, the **elderly (over 65 years of age) and persons with weakened immune systems,** for example, undernourished persons, people who have had organ transplants, those with HIV/AIDS, diabetes, cancer and other autoimmune diseases.

Pregnant women: Pregnant women are approximately **20 times more likely** than other healthy adults to get listeriosis. Pregnant women typically experience only fever and other flu-like symptoms, such as fatigue and muscle aches. However, infections during pregnancy can lead to

miscarriage, stillbirth, premature delivery, or life-threatening infection of the newborn, such as meningitis.

• **People other than pregnant women**: Symptoms can include headache, stiff neck, confusion, loss of balance, and convulsions in addition to fever and muscle aches.

People with invasive listeriosis usually report symptoms starting **1 to 4 weeks** after eating food contaminated with *L. monocytogenes*; some people have reported symptoms starting as late as 70 days after exposure or as early as the same day of exposure (although this is very rare).

Foods that have caused outbreaks are typically contaminated from the environment during manufacturing/processing or packing.

Listeriosis is **mainly associated** with consumption of contaminated Ready-To-Eat (RTE) foods. Foods most often implicated in foodborne outbreaks **globally**, are:

- Ready-to-eat deli meats (polonies, ham products etc) and hot dogs
- Refrigerated pâtés or meat spreads
- Unpasteurized (raw) milk and dairy products
- Soft cheese made with unpasteurized milk, such as queso fresco, Feta, Brie, Camembert
- Refrigerated smoked seafood
- Raw sprouts
- Pre-packaged salads
- Ice cream (not as common)

It is killed by thorough cooking and by temperatures used for pasteurization of milk.

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