



health

Department:
Health
REPUBLIC OF SOUTH AFRICA



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Media statement by the Minister of Health Dr Aaron Motsoaledi regarding the update on the Listeriosis outbreak in South Africa

Good morning ladies and gentlemen.

Let me take this opportunity to thank you for joining us this morning

Firstly, let me introduce Prof Lucille Blumberg, Specialist Microbiologist, and Dr Juno Thomas, Head of the Centre for Enteric Diseases - both are from the National Institute for Communicable Diseases (NICD), Dr Rufaro Chatora (Country Representative from the World Health Organization (WHO)), Mr Mooketsa Ramasodi (Acting Director General for the Department of Agriculture, Forestry and Fisheries (DAFF)), Mr Lionel October (Director General for the Department of Trade and Industry (DTI)), and Ms Tiny Rennie (Acting Director-General of the Department of Health).

This media conference is about updating the nation on the current outbreak of listeriosis in South Africa.

Again, I must emphasise that listeriosis is a serious, but preventable and treatable disease caused by the bacterium, *Listeria monocytogenes*. The bacteria are widely distributed in nature and can be found in soil, water, vegetation and the faeces of some animals.

Animal products (including meat, meat products, dairy products), seafood and fresh produce such as fruits and vegetables can be contaminated from these sources.

To understand where we stand now, it will be important for me to do a quick recap of what transpired at the last press conference which we held on 5 December last year in this venue.

We informed you that tracking back from 1st January 2017, as of 29 November 2017, there were a total of 557 laboratory-confirmed listeriosis cases that were reported from all provinces.

Exactly a month later, i.e as of 5 January 2018, the situation is as follows:

There are 727 laboratory-confirmed cases that occurred in the country since January 2017. This means that since the last press conference of 5 December 2017, a total of 170 extra cases emerged.

Of these 170, a total of 51 had already occurred before 5 December 2017, only that we are discovering them now as the search continues, hence they were captured retrospectively.

Therefore, there are 119 new cases that occurred since our last press conference.

Let me remind you that searching for laboratory-confirmed cases is not the same as finding the actual patient.

After discovering a positive test in a particular laboratory we hence have to start tracing the patient from the health facility that had sent the specimen.

It is very difficult and a tedious process to follow these patients.

As you may remember, by the 1st press conference on 5 December 2017, there were 36 people who were traced and were found to have passed on.

Now out of the total of 727 laboratory-confirmed cases which we know about, we were only able to trace 134 actual patients. 134/727 is only 18%.

This means that we still have a very long way to go in searching. Out of this 134 traced patients, 61 had passed on.

Of the new cases, i.e of the 119 new cases found since 5 December 2017, we were only able to trace 5 and 3 of these have passed on. These 3 are already counted in the total of the 61 deceased.

We know that in all major Listeriosis epidemics that occurred in various parts of the world, the mortality rate is usually high, sometimes higher than 30% despite the fact that *Listeria monocytogenes* is treatable. This is because it is a very virulent organism, especially to neonates.

As far as distribution in the country is concerned we have the following situation:

Gauteng still no. 1 at 61% (442/727) - in December it was 62% (345/557);

Western Cape is still no. 2 at 13% (92/727) - in December it was 13% (71/557);

KwaZulu Natal is still no. 3 at 7% (51/727) - in December it was 7% (37/557);

65% (473/723) are occurring in the public sector - in December it was 66% and 35% (251/724) are occurring in the private sector - in December it was 34%.

Hence no change in the public/private distribution.

RECENT DEVELOPMENTS

Since 5 December 2017, the Department of Health amended the list of notifiable diseases to include Listeriosis. Prior to this outbreak, Listeriosis was not a notifiable condition.

For a disease to be notifiable, it has to meet at least two (2) of five (5) qualifying criteria:

- 1) The disease must be contagious/communicable;
- 2) Rapid spread;
- 3) Unusual or unexpected behaviour;
- 4) Risk of spilling across borders;
- 5) Risk of restriction to business or travel across borders

It is now evident that Listeriosis does qualify in at least 2 of the criteria, i.e Rapid spread and unusual or unexpected behaviour.

It is for this reason that the Department of Health introduced a new policy of making Listeriosis notifiable and this is appearing in Government Gazette No. 41330 of 15 December 2017.

We appeal to all health workers to do the following:

- Report all cases of Listeriosis in terms of reporting procedures applicable to all notifiable diseases;
- Complete case investigation forms for patients with Listeriosis and submit these to the NICD - details are available on the NICD website

GENOME SEQUENCING ANALYSIS

In their efforts to scientifically trace the source of the outbreak of *Listeria monocytogenes*, a whole genome sequencing (WGS) analysis is done. WGS is a DNA-fingerprinting analysis to see whether particular organisms are related and are of the same sequence type. To do this, the NICD uses isolates from 3 different sources:

- Clinical isolates: this is obtained from the blood of a sick patient;
- Food isolates: this is obtained from the food that is found in the patient's home or any other locality like food production sites;
- Environmental isolates: these are obtained from the environment where food is produced.

This work is ongoing and stretches back from the 1st of January 2017, and as of 3 January 2018, a total of 337 isolates have been sequenced to date.

73% (247/337) are clinical isolates.

22% (74/337) are food isolates

5% (16/337) are food production environment isolates.

The clinical isolates are represented by 9 sequence types which are ST1, ST101, ST2, ST219, ST5, ST54, ST6, ST8, ST876. However, 91% (225/247) of these clinical isolates are sequence type 6 (ST6) and are very closely related, representing a single strain of *Listeria monocytogenes*.

THE CONCLUSION IS THEN THAT THE STRAIN FOR THIS PRESENT OUTBREAK WE ARE EXPERIENCING IS ST6.

This ST6 strain has been identified in isolates from all 9 provinces, and this finding supports the current working hypothesis, of a single source of food contamination causing the outbreak, i.e a single widely consumed food product or multiple food products produced at a single facility.

The food and environmental samples are represented by 18 sequence types, 4 of which (ST1, ST101, ST2, and ST5) are also STs represented in the clinical isolates. However, no ST6 food or environmental isolates have been identified to date.

In simple language, it means we cannot yet link the clinical isolates obtained from patients to a particular foodstuff or a particular food production site environment.

In their vigilance and continuing search for the source of *Listeria* outbreak, Environmental Health Practitioners from the City of Tshwane in December 2017 investigated a Tshwane patient hospitalised with Listeriosis.

A chicken sample collected from the fridge at the patient's home tested positive for *Listeria monocytogenes*. This chicken was traced back to the store, and from there traced back to the abattoir it was sourced from (Sovereign Foods).

The Environmental Health Practitioners visited the abattoir and collected food and environmental samples, several of which tested positive for *Listeria monocytogenes*. As a precaution, the abattoir was served with a prohibition notice pending further investigations.

The abattoir-related *Listeria monocytogenes* was subjected to whole genome sequencing (WGS). All the samples collected from the food and environment at the abattoir have up to so far failed to pick up the outbreak strain ST6. However, other strains with potential to cause disease were picked up, hence the prohibition notice for public health safety.

At this juncture, we cannot conclude that the Abattoir called Sovereign Foods is the source the present outbreak.

But we can conclude that it has Listeria, which can cause illness, and hence it was in the best interest of public health that the Abattoir was prohibited from further preparing food pending the cleaning of the environment and meeting certain conditions given to them.

What concerns us more at this moment is that this particular abattoir was closed two-months ago by DAFF following the discovery of unhygienic conditions and practices, which of course were not necessarily related to Listeria. These were preceded by Environmental Health investigations which were conducted earlier in July 2017 by Tshwane Metropolitan Municipality the findings of which were existence of conditions that constitute a nuisance in the facility.

These led to delayed issuance of Certificate of Acceptability at the time until such time that the corrective measures were implemented.

A special meeting was held with all Senior Managers in GP on the 15th of December 2017 to inspect all food premises within the Province with specific target of the food processing areas and retail foods.

The Director General of the National Department of Health has formally requested food industry stakeholders to submit details of *Listeria*-positive food items, environmental swabs and *Listeria* isolates to the NICD. Whilst several stakeholders have been forthcoming with information, not all stakeholders have responded as yet.

Environmental Health Practitioners from Municipalities and Provinces where positive cases are reported should embark on case investigation and trace the sources of infection.

Clinical listeriosis management guidelines are also available on the website, and the NICD continues to operate its 24-hour hotline to support healthcare workers.

Work has commenced on implementation of plan for inspection of food processing facilities including packaging at distribution plants for bigger retailers and inspected by Environmental Health Practitioners from Municipalities initially within most affected Provinces (Gauteng, Western Cape and KwaZulu-Natal) and samples taken to assess the quality of the processing systems. The results will be used to guide public health interventions for listeriosis prevention and control.

A multisectoral outbreak response team (MNORT) led by the National Department of Health, and includes the Department of Agriculture, Forestry and Fishery (DAFF), the Department of Trade and Industry, the NICD and other relevant stakeholders will continue to monitor and coordinate the outbreak response activities.

All South Africans should practice basic food hygiene principles as outlined in the World Health Organization's 'Five Keys to Safer Food' programme. The core 'commandments' of food hygiene are -

1. Keep clean: wash your hands before handling food and often during food preparation
2. Separate raw and cooked: separate raw meat, poultry and seafood from other foods
3. Cook thoroughly: cook foods thoroughly, especially meat, poultry, eggs and seafood
4. Keep food at safe temperatures: refrigerate and reheat foods correctly
5. Use safe water and raw materials: use safe water or make it safe (by boiling); choose foods processed for safety such as pasteurised dairy products; wash fruits and vegetables thoroughly, especially if eaten raw.

SPECIAL REQUEST TO HEALTH WORKERS AND THE PUBLIC AT LARGE

In December 2017 we reported that whilst *Listeria* can affect anybody from any socio-economic backgrounds, there are certain categories of people who are specifically vulnerable. These are neonates, i.e less than 28 days of life, pregnant women, the elderly, and people with compromised immune systems - e.g people living with HIV and AIDS, Diabetes, and chronic diseases like cancer, kidney and liver diseases.

However, when we view statistics of affected people, we note that of all these vulnerable groups, neonates are the worst affected, if we analyse it by age group from birth to 93 years. In this case, neonates alone account for close to 40% of these cases.

Of note is that of all the neonates that get affected, 96% had early onset disease, i.e from birth to 6 days after birth. It is clear that these neonates are simply vulnerable due to their pregnant mothers. They are infected by their mothers at birth.

Due to this high number of neonates, a special request to health workers and the public at large, is to pay special attention to all pregnant women. Have a high index of suspicion whenever dealing with a pregnant woman or a neonate. Be alert all the time, be it at antenatal clinic, labour ward, and neonatology units.

There are 1,2 million pregnant women in South Africa annually. In 2014, we launched a special programme called MomConnect, whereby we register every pregnant woman on the cellphone. We send them messages every two weeks commensurate with their period of pregnancy. After birth we switch over the messages to the care of the newborn. Since that period, we have registered 1,96 million pregnant women in that programme. I have now given instruction that all of them be sent instruction about Listeria. We are calling on more pregnant women to register on MomConnect, be they in private or public, because it is during times like this when we are able to reach them quicker through messages.

I thank you

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