NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES
Division of the National Health Laboratory Service

LISTERIOSIS CASE INVESTIGATION FORM

Please complete and submit with Notifiable Medical Conditions (NMC) form and laboratory results to Provincial Communicable Diseases Control Officer and NICD: ced@nicd.ac.za

UNIQUE ID: NAMEYYYYPROV

LISTERIA CASE INVESTIGATION FORM

This form should be completed in full for each laboratory-confirmed Listeria case. Please note, if the patient is a neonate information on risk factors and conditions predisposing for infection pertains to the mother. Food exposure information should be completed for the mother.

Transmission:	**Incubation period:**
Mainly via ingestion of contaminated ready-to-eat food. Other routes include mother to fetus via placenta or at birth.	The incubation period is generally accepted to be 1-70 days. However, a recent study reported a shorter incubation period for cases presenting with septicemia (median 2 days; range 1-12 days) meningitis (median 9 days; range 1-14 days) or than for pregnancy-related cases (median 27 days; range 17-67 days). Ref: Goulet.V. et al BMC 2013 13:11

Section A

SOURCE(S) OF INFORMATION

If the case is a neonate, the mother should be interviewed.

Interview type: ☐ In person ☐ Telephonic ☐ Medical Record Review

Case Contact Number:_____

Persons Interviewed ☐Case ☐ Proxy ☐ Unknown ☐ None Available

If interview completed with a proxy/s, relationship to patient (if you interview more than one, please select all that apply):
☐ Caregiver ☐ Guardian ☐ Partner ☐ Parent ☐ Child ☐ Other _____

1. Name of *proxy* interviewed: _____ 2. Name of *proxy* interviewed: _____ _____
1. Contact number _____ 2. Contact number: _____ _____

Section B

CASE DEMOGRAPHIC DATA

Age in years: ____ **OR:** Age in days:_____
☐ Age Unknown

Gender: ☐ Male ☐ Female ☐ Unknown

Date of birth: __/ __/ ____

Race: ☐ Black African ☐ Indian or Asian ☐ Coloured ☐White ☐Other (*specify*)_____ ☐Unknown

Name: _____
Surname:_____

Identity Number: ☐ Unknown

Home address: _____ Postal Code:

District:

Province:

Is case employed?
☐ Yes ☐ No ☐Unknown ☐N/A

Occupation:

Place of employment:

Is this case pregnancy-associated?

Illness in: a pregnant woman; a mother up to 2 weeks post-partum; a fetus or infant ≤28 days old

☐ Yes ☐ No ☐ Unknown *If yes*, **move to SECTION D**

Section C — LABORATORY AND ILLNESS DATA FOR CASES NOT ASSOCIATED WITH PREGNANCY

Specimen Type	Laboratory Name	Date Collected (dd/mm/yyyy)	Lab/Episode Number
☐ Blood			
☐ CSF			
☐ Other (*specify*)_____			
☐ Other (*specify*)_____			

Diagnoses/Manifestation

Did the case have any of the following type(s) of diagnosis related to the *Listeria* Infection?

☐ Bacteraemia/Sepsis ☐ Meningitis ☐ Pneumonia ☐ Unknown ☐ Other (*specify*)_____

Hospital

Was case admitted to hospital for listeriosis? ☐ Yes ☐ No ☐ Unknown

If yes, Name of Hospital _____

If yes, Date admitted: __/__/____ Date discharged: __/__/____ ☐ Still admitted as of:__/__/____

Outcome of case:

☐ Discharged Alive ☐ Died - Date of death:___/__/____ ☐ Still admitted ☐ Outcome Unknown

If discharged, last known date alive __/__/____

Date of onset of symptoms__/__/____

Which of the following symptoms were associated with illness?

Fever	☐ Yes ☐ No ☐ Unk	Abdominal cramps	☐ Yes ☐ No ☐ Unk
Muscle aches	☐ Yes ☐ No ☐ Unk	Neck-stiffness	☐ Yes ☐ No ☐ Unk
Confusion	☐ Yes ☐ No ☐ Unk	Flu-like illness	☐ Yes ☐ No ☐ Unk
Headaches	☐ Yes ☐ No ☐ Unk	Diarrhoea/vomiting	☐ Yes ☐ No ☐ Unk
Convulsions	☐ Yes ☐ No ☐ Unk	Other	☐ Yes ☐ No ☐ Unk *specify*:_____
Loss of balance	☐ Yes ☐ No ☐ Unk	Other	☐ Yes ☐ No ☐ Unk *specify*:_____

Section D — LABORATORY AND ILLNESS DATA FOR CASES ASSOCIATED WITH PREGNANCY

Illness in: a pregnant woman; a mother up to 2 weeks post-partum or infant ≤28 days old

Age of mother in years: _____ ☐ **Age Unknown**

Specimen type	Laboratory name	Date of specimen collection (dd/mm/yyyy)	Lab/Episode Number
☐ Blood from mother			
☐ Blood from neonate			
☐ CSF from mother			
☐ CSF from neonate			
☐ Placenta			
☐ Amniotic fluid			

☐ Fetal Tissue					
☐ Other *Specify:*_____					
☐ Other *Specify*:_____					
Outcome of pregnancy (single gestation or twin 1)	**Weeks of gestation**	**Date (dd/mm/yyyy)**	**Outcome of pregnancy (twin 2)**	**Weeks of gestation**	**Date (dd/mm/yyyy)**
☐Still pregnant			☐Still pregnant		
☐Delivery (live birth)			☐Delivery (live birth)		
☐Fetal death (miscarriage or still birth)			☐Fetal death (miscarriage or still birth)		
☐Other (*specify*)			☐Other (*specify*)		

Type(s) of illness in mother (*tick all that apply*)	**Type(s) of illness in neonate (twin 1)** (*tick all that apply*)	**Type(s) of illness in neonate (twin 2)** (*tick all that apply*)
☐ None ☐ Fever ☐ Bacteraemia/Sepsis ☐ Meningitis ☐ Gastroenteritis ☐ Amnionitis ☐ Non-specific "flu-like" illness ☐ Other (*specify*) _____ ☐ Unknown	☐ Bacteraemia/Sepsis ☐ Meningitis ☐ Pneumonia ☐ Respiratory distress syndrome ☐ Low birth weight ☐ None ☐ Other (*specify*) _____ ☐ Unknown	☐ Bacteraemia/Sepsis ☐ Meningitis ☐ Pneumonia ☐ Respiratory distress syndrome ☐ Low birth weight ☐ None ☐ Other (*specify*) _____ ☐ Unknown
	Where was the neonate (twin 1) delivered? ☐ Hospital/clinic: ☐ Home ☐ Other (*specify*)_____ ☐ Unknown Date of birth: __/__/____	**Where was the neonate (twin 2) delivered?** ☐ Hospital: ☐ Home ☐ Other (*specify*)_____ ☐ Unknown Date of birth: __/__/____
Was mother admitted for listeriosis? ☐ Yes ***If yes***: Date admitted:__/__/____ ☐ Still admitted Hospital Name:_____ Ward number:_____ Hospital number:_____ ☐ Not Admitted ☐ No – not sick ☐ Unknown	**Was the neonate (twin 1) admitted for listeriosis?** (*may include above dates*) ☐ Yes ***If yes***: Date admitted:__/__/____ ☐ Still admitted Hospital Name:_____ Ward number:_____ Hospital number:_____ ☐ No ☐ No – not sick ☐ Unknown	**Was the neonate (twin 2) admitted for listeriosis?** (*may include above dates*) ☐ Yes ***If yes***: Date admitted:__/__/____ ☐ Still admitted Hospital Name:_____ Ward number:_____ Hospital number:_____ ☐ No ☐ No – not sick ☐ Unknown

Mother's Outcome	Neonate 1's (twin 1's) outcome	Neonate 2's (twin 2's) outcome
☐ Discharged	☐ Discharged	☐ Discharged
☐ Died - Date of Death ___/___/___	☐ Died - Date of Death ___/___/___	☐ Died - Date of Death ___/___/___
☐ Unknown	☐ Unknown	☐ Unknown
If discharged: Last known date alive __/__/____	***If discharged***: Last known date alive __/__/____	***If discharged***: Last known date alive __/__/____
If died: Was listeriosis/*Listeria* infection on death certificate?	***If died***: Was listeriosis/*Listeria* infection on death certificate?	***If died***: Was listeriosis/*Listeria* infection on death certificate?
☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown

Section E — CASE RISK FACTORS – tick all that apply

☐ No risk factors, medications, or treatments (*previously healthy*)
☐ Alcohol dependency
☐ HIV
☐ Metabolic disease (incl. diabetes mellitus)
☐ Cancer/malignancy
☐ Immunosuppression treatment (steroids/chemotherapy)
☐ Chronic liver disease
☐ Chronic kidney disease
☐ Unknown
☐ Pregnancy related
☐ Other conditions (*specify*):_____
☐ Not stated

* **Calculate the time period 4 weeks prior to onset of illness or delivery date (/ / to / /)**

This time period will be used to complete Section F and Section G

Section F — CASE TRAVEL HISTORY

(***If case is a neonate ≤28 days old travel history information is completed for the mother***)

Did the case live or travel outside of South Africa during the 4 weeks prior to illness onset or delivery date? ☐ Yes ☐ No ☐ Unknown

If yes, name of countries visited or lived in_____ _____

If yes, Date of departure from South Africa __/__/____ Date of return to South Africa __/__/____

Section G — FOOD SOURCE HISTORY

(***If case is a neonate ≤28 days old exposure information is completed for the mother***)

Food History is to be collected for 4 weeks prior to onset of illness or delivery if the case is pregnancy related

In the 4 weeks prior to onset of illness or delivery date where did the case purchase/eat food from?

Sources of food eaten inside the home

Grocery store/Supermarket Name	Address
1.	
2.	
3.	
4.	

Sources of food eaten outside the home (such as restaurants, fast food restaurants, buffets, roadside stands, spaza shops)

Restaurant Name	Address	Foods Eaten	Date(s)
1.			
2.			

3.			
4.			
5.			
6.			
7.			

Other sources of food (such as food served at an event, church, festival, etc.)

Names of Venue	Address	Foods Eaten	Date(s)
1.			
2.			
3.			

Section H

FOOD CONSUMPTION HISTORY

In the 4 weeks prior to onset of illness or date of delivery did the case eat any of the following foods:

I. Cheese	Ate (=1)	Likely Ate (=2)	Likely Did Not Eat (=3)	Did Not Eat (=4)	Don't Know (=9)	Details (Type, variety, brand, packaging, size/weight)	Made with Unpasteurized Milk?	Shop Purchased
Brie/Camembert	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Ricotta	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Cottage cheese	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Feta	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Gouda	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Cheddar	1	2	3	4	9	*If 1 or 2,* **was it** ☐Sliced ☐ Grated ☐unk	☐ Yes ☐ No ☐ Unk	
Parmesan	1	2	3	4	9	*If 1 or 2,* **was it** ☐Sliced ☐ Grated ☐unk	☐ Yes ☐ No ☐ Unk	
Blue Cheese	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Haloumi	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Any cheese cut/sliced at a deli?	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Other cheese *specify*:_____	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	

II. Cold Meats	Ate (=1)	Likely Ate (=2)	Likely Did Not Eat (=3)	Did Not Eat (=4)	Don't Know (=9)	Details (Type, variety, brand, packaging, size/weight)	If 1 or 2 was it sliced at the deli?	Shop Purchased

Ham	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Polony	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Salami	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Chicken loaf	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Other cold meat *specify*:_____	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
III. Sausages	**Ate (=1)**	**Likely Ate (=2)**	**Likely Did Not Eat (=3)**	**Did Not Eat (=4)**	**Don't Know (=9)**	**Details (Type, variety, brand, packaging, size/weight)**	**If 1 or 2 were they heated /cooked before consumption**	**Shop Purchased**
Viennas	1	2	3	4	9	☐ Red Vienna ☐ Chicken Vienna ☐ Smoked Vienna ☐ unknown	☐ Yes ☐ No ☐ Unk	
Russians	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Frankfurters	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Cheesegrillers	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Cocktail sausages	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
Other sausage *specify*:_____	1	2	3	4	9		☐ Yes ☐ No ☐ Unk	
IV. Other Meat	**Ate (=1)**	**Likely Ate (=2)**	**Likely Did Not Eat (=3)**	**Did Not Eat (=4)**	**Don't Know (=9)**	**Details (Type, variety, brand, packaging, size/weight)**	**Shop Purchased**	
Pre-cooked Chicken (BBQ, rotisserie)	1	2	3	4	9			
Other pre-cooked meat	1	2	3	4	9	Specify type:		
Biltong	1	2	3	4	9			
Droewors	1	2	3	4	9			
V. Other Dairy	**Ate (=1)**	**Likely Ate (=2)**	**Likely Did Not Eat (=3)**	**Did Not Eat (=4)**	**Don't Know (=9)**	**Details (Type, variety, brand, packaging, size/weight)**	**Shop Purchased**	
Fresh Milk	1	2	3	4	9	*If 1 or 2,* **was the milk unpasteurized**? ☐ Yes ☐ No ☐ Unk		
Long life milk	1	2	3	4	9			
Other non-dairy milk	1	2	3	4	9			

specify:_____							
Buttermilk	1	2	3	4	9		
Cream	1	2	3	4	9		
Amasi	1	2	3	4	9		
Mageu	1	2	3	4	9		
Yoghurt	1	2	3	4	9		
Drinking yoghurt	1	2	3	4	9		
Ice cream	1	2	3	4	9		
Butter	1	2	3	4	9		
Margarine	1	2	3	4	9		
VI. Seafood	**Ate (=1)**	**Likely Ate (=2)**	**Likely Did Not Eat (=3)**	**Did Not Eat (=4)**	**Don't Know (=9)**	**Details (Type, variety) (brand, packaging, size/weight if applicable)**	**Shop Purchased**
Frozen seafood *specify*_____	1	2	3	4	9		
Raw fish or Raw seafood (*such as sushi*)	1	2	3	4	9		
Pre-cooked seafood or shellfish	1	2	3	4	9		
Smoked or cured fish	1	2	3	4	9		
VII. Fruits	**Ate (=1)**	**Likely Ate (=2)**	**Likely Did Not Eat (=3)**	**Did Not Eat (=4)**	**Don't Know (=9)**	**Details (Type, variety) (brand, packaging, size/weight if applicable)**	**Shop Purchased**
Apples	1	2	3	4	9		
Apricots	1	2	3	4	9		
Avocado	1	2	3	4	9		
Banana	1	2	3	4	9		
Blueberries	1	2	3	4	9		
Cherries	1	2	3	4	9		
Gooseberries	1	2	3	4	9		
Granadilla	1	2	3	4	9		
Grapefruit	1	2	3	4	9		
Grapes	1	2	3	4	9		
Kiwi fruit	1	2	3	4	9		
Lemons	1	2	3	4	9		
Mango	1	2	3	4	9		
Naartjie	1	2	3	4	9		
Nectarines	1	2	3	4	9		
Orange	1	2	3	4	9		
Papaya	1	2	3	4	9		
Peaches	1	2	3	4	9		
Pears	1	2	3	4	9		
Pineapple	1	2	3	4	9	☐ whole ☐ pre-cut	
Plums	1	2	3	4	9		
Pomegranate pIps	1	2	3	4	9		

Raisins	1	2	3	4	9		
Spanspek (cantaloupe)	1	2	3	4	9	☐ whole ☐ pre-cut	
Strawberries	1	2	3	4	9		
Watermelon	1	2	3	4	9	☐ whole ☐ pre-cut	
Any fruit salad or other precut fruit	1	2	3	4	9		
Other fruits *specify*:_____	1	2	3	4	9		
VIII. Vegetables (eaten raw)	**Ate (=1)**	**Likely Ate (=2)**	**Likely Did Not Eat (=3)**	**Did Not Eat (=4)**	**Don't Know (=9)**	**Details (Type, variety) (brand, packaging, size/weight if applicable)**	**Shop Purchased**
Green beans	1	2	3	4	9	☐ Fresh ☐ Frozen	
Beetroot	1	2	3	4	9		
Broccoli	1	2	3	4	9	☐ Fresh ☐ Frozen	
Cabbage	1	2	3	4	9	☐ Fresh ☐ Frozen	
Carrots	1	2	3	4	9	☐ Fresh ☐ Frozen	
Cauliflower	1	2	3	4	9	☐ Fresh ☐ Frozen	
Celery	1	2	3	4	9		
Cucumber	1	2	3	4	9		
Garlic	1	2	3	4	9		
Sweet peppers (green, yellow, red)	1	2	3	4	9	☐ Fresh ☐ Frozen	
Hot chili peppers	1	2	3	4	9		
Lettuce	1	2	3	4	9	☐ Green leaf ☐Red leaf ☐ Romaine ☐ Iceberg ☐ Unknown ☐ Other *specify*_____ ☐Prepackaged ☐Whole head	
Mushrooms	1	2	3	4	9	☐ Fresh ☐ Dried	
Onions	1	2	3	4	9	☐ Fresh ☐ Frozen	
Peas	1	2	3	4	9	☐ Fresh ☐ Frozen	
Spinach/Morogo	1	2	3	4	9	☐ Fresh ☐ Frozen	
Spring onions	1	2	3	4	9		
Sprouts or microgreens	1	2	3	4	9		
Sweetcorn	1	2	3	4	9	☐ Fresh ☐ Frozen	
Tomatoes	1	2	3	4	9		
Fresh herbs (basil, cilantro, parsley)	1	2	3	4	9	Type of herb specify	
Any other fresh vegetables? *specify*_____	1	2	3	4	9	☐ Fresh ☐ Frozen	
IX. Other Foods	**Ate (=1)**	**Likely Ate (=2)**	**Likely Did Not Eat**	**Did Not Eat (=4)**	**Don't Know (=9)**	**Details (Type, variety) (brand, packaging, size/weight if applicable)**	**Shop Purchased**

			(=3)				
Prepared Deli salads	1	2	3	4	9		
Fresh fruit juice	1	2	3	4	9		
Fruit Smoothie	1	2	3	4	9		
Refrigerated dips or spreads	1	2	3	4	9		
Nuts or seeds	1	2	3	4	9		
Any foods brought from another country *specify*_____	1	2	3	4	9		

Do you have any of the foods we have discussed, available in your home that we could collect and send to the laboratory for testing? ☐ Yes ☐ No ☐ Unknown

Specify _____

Are there any other foods you consumed (in the 4 weeks prior to onset of illness/date of delivery) that we have not already discussed?

Comments:

INTERVIEWER DETAILS

1. Name of Interviewer:_____ Interviewer Contact Number:_____

   Occupation and employer_____ Date of Interview:____/_____/_____

   Province_____

Date investigation initiated:_____/_____/____ Date Investigation Completed:____/____/_____

DATA CAPTURE INFORMATION – NICD use only

Data capture date:__/__/____ Data capturer name: _____ **Unique Patient ID number**:_____

Is this case, epidemiologically linked to another confirmed case? (eg for pregnancy related cases, if mother and baby are both confirmed cases)

☐ Yes ☐ No ☐ Unk

If yes,
Linked case Unique Patient ID number:_____