

**NATIONAL ENHANCED MANDATORY SURVEILLANCE OF
GRAM-NEGATIVE BACTERAEMIA**

IN STRICT CONFIDENCE

Please tick boxes or write in the white space(s) provided (see notes on page 3)

PATIENT DETAILS

Patient's initials: Patient's surname:
 NHS number: Hospital number:
 Date of birth: Sex: Male: Female: Unknown:
 Date specimen taken: Lab number:

INFECTION EPISODE DETAILS

Gram-negative data collection *Escherichia coli* *Klebsiella* species *Pseudomonas aeruginosa*
 If *Klebsiella* species *K. pneumoniae* *K. aerogenes* Other named
Please select species (inc. subspecies pneumoniae & ozenae)
K. oxytoca *Klebsiella spp.*

Episode category: (please tick one option) New infection: Repeat/relapse:
 Continuing infection: Unknown:
Is patient on dialysis: Yes: Acute RF: Yes: Established RF: No: Unknown:

ADMISSION DETAILS

Patient category: (please tick one option) In-patient: Emergency assessment: Regular attender:
 Day patient: A & E only: Other:
 Outpatient:
If Other:
If patient admitted complete this section
Admitted this episode: Yes: No: Unknown: Date of admission:
Admission method: (please tick one option) Not applicable: Planned (deferred):
 Unknown: Emergency:
 Waiting list: Other (inc. maty):
Main specialty:
Treatment specialty:
Augmented care:

Provenance of patient: (please tick one option) Home: Private hospital: Mental health hospital:
 Hospital: Temporary accommodation: Not known:
 Nursing/Residential home: Penal establishment: Other:
 Community hospital: Non-UK resident:

If hospital; hospital name:
If Other; location:
If non UK country:
Additional comments:

PRIOR TRUST EXPOSURE

Has the patient been discharged from an elective or emergency hospital admission in the reporting trust in the Yes: No: Don't know:
 Please provide the date of discharge for the most recent elective or emergency hospital admission prior to the

RISK FACTORS

Primary focus of bacteraemia: (please tick one option)

No clinical signs of bacteraemia:	<input type="checkbox"/>	Please complete Section 1	Skin/soft tissue:	<input type="checkbox"/>	Please complete Section 5 (including ulcers, cellulitis, diabetic foot infections without OM)
No underlying focus of infection:	<input type="checkbox"/>	Please complete Section 1	Hepatobiliary:	<input type="checkbox"/>	Please complete Section 7
Intravascular device: (including Pacemaker/ ICD or CVC)	<input type="checkbox"/>	Please complete Section 2	Gastrointestinal or Intraabdominal collection:	<input type="checkbox"/>	Please complete the * questions in Section 2 (excluding hepatobiliary)
Bone and Joint: (with prosthetic material)	<input type="checkbox"/>	Please complete Section 3	Cardiovascular or vascular:	<input type="checkbox"/>	Please complete Section 6 (without prosthetic material, including fistula infection)
Bone and Joint: (no prosthetic material)	<input type="checkbox"/>	Please complete Section 3	Cardiovascular or vascular:	<input type="checkbox"/>	Please complete Section 6 (with prosthetic material e.g. EVAR, stent, valve, prosthetic fistula)
Lower Urinary Tract:	<input type="checkbox"/>	Please complete Section 4	Unknown:	<input type="checkbox"/>	Please complete Section 1
Upper Urinary tract: (pyelonephritis/ abscess)	<input type="checkbox"/>	Please complete Section 4			
Lower Respiratory Tract: (oneumonia, VAP, bronchiectasis, exac COPD etc)	<input type="checkbox"/>	Please complete Section 5			
Upper Respiratory : Tract & ENT	<input type="checkbox"/>	Please complete Section 5			
Central nervous system:	<input type="checkbox"/>	Please complete Section 6			
Genital system: (including prostate if male)	<input type="checkbox"/>	Please complete Section 4			

Clinical Information Reporting: Gram-negative bacteraemia

SECTION 1

Urinary catheter in the last 28 days prior: (including intermittent or temporary) Yes: No: Unknown:

Urinary catheter manipulated 28 days prior: (including intermittent or temporary) Yes: No: Unknown:

Prostate biopsy: in 28 days prior Trans rectal: No: Urethral: Unknown: Trans perineum:

Vascular access device: (PPM or ICD) or CVC inserted, removed, manipulated 28 days prior Yes: No: Unknown:

UTI treatment: 28 days prior to onset Yes: No: Unknown:

Intubated (Et or PT) or extubated: 28 days prior to onset Yes: No: Unknown:

Surgery prior to procedure: (30 days or 12 months prosthetic material) Yes: No: Unknown:

Hepatobiliary procedure: (ERCP or MRCP or similar) 28 days prior Yes: No: Unknown:

Absolute neutrophil count: less than 500 (0.5) at time Yes: No: Unknown:

Anti-cancer chemotherapy: 28 days, prior to specimen date Yes: No: Unknown:

Open wounds/ulcer not diabetic foot infection: 28 days prior to onset Yes: No: Unknown:

Diabetic foot ulcer or infection: 28 days prior to onset Yes: No: Unknown:

Surgical methods used : (tick all that apply)

Open, including endoscopy-assisted procedures, not involving implant in last 30 days

Open, including endoscopy-assisted procedures, involving implant in last 12 months

Solely endoscopic not involving implant in last 30 days

Solely endoscopic involving implant in last 12 months

Unknown

SECTION 2.

Vascular device: (PPM or ICD) or CVC inserted, removed, manipulated 28 days prior Yes: No: Unknown:

* Surgery prior to procedure: (30 days or 12 months prosthetic material) Yes: No: Unknown: If 'Yes' please complete "Surgical Methods" Box in Section 1.

* Absolute neutrophil count: less than 500 (0.5) at time Yes: No: Unknown:

Anti-cancer chemotherapy: 28 days, prior to specimen date Yes: No: Unknown:

Go to Antibiotics Section

SECTION 3.

Surgery prior to procedure: (30 days or 12 months prosthetic material) Yes: No: Unknown:

Open wounds/ulcer not diabetic foot infection: 28 days prior Yes: No: Unknown:

Diabetic foot ulcer or infection: 28 days prior Yes: No: Unknown:

Absolute neutrophil count: less than 500 (0.5) at time: Yes: No: Unknown:

Anti-cancer chemotherapy: 28 days prior to specimen date: Yes: No: Unknown:

SECTION 4.

Urinary catheter in the last 28 days prior: (including intermittent or temporary) Yes: No: Unknown:

Urinary catheter manipulated 28 days prior: (including intermittent or temporary) Yes: No: Unknown:

UTI treatment: 28 days prior to onset Yes: No: Unknown:

Prostate biopsy: in 28 days prior Trans rectal: No: Urethral: Unknown: Trans perineum:

Surgery prior to procedure: (30 days or 12 months prosthetic material) Yes: No: Unknown: If 'Yes' please complete "Surgical Methods" Box in Section 1.

Absolute neutrophil count: less than 500 (0.5) at time Yes: No: Unknown:

Anti-cancer chemotherapy: 28 days prior to specimen date: Yes: No: Unknown:

Go to Antibiotics Section

SECTION 5.

Intubated (ETorPT) or extubated: 28 days prior to onset Yes: No: Unknown:

Surgery prior to procedure: (30 days or 12 months prosthetic material) Yes: No: Unknown: If 'Yes' please complete "Surgical Methods" Box in Section 1.

Absolute neutrophil count: less than 500 (0.5) at time Yes: No: Unknown:

Go to Antibiotics Section

SECTION 6.

Surgery prior to procedure: (30 days or 12 months prosthetic material) Yes: No: Unknown: If 'Yes' please complete "Surgical Methods" Box in Section 1.

Absolute neutrophil count: less than 500 (0.5) at time Yes: No: Unknown:

Anti-cancer chemotherapy: 28 days prior to specimen date: Yes: No: Unknown:

Go to Antibiotics Section

SECTION 7.

Surgery prior to procedure: (30 days or 12 months prosthetic material) Yes: No: Unknown: If 'Yes' please complete "Surgical Methods" Box in Section 1.

Hepatobiliary procedure: (ERCP or MRCP or similar) 28 days prior Yes: No: Unknown:

Absolute neutrophil count: less than 500 (0.5) at time Yes: No: Unknown:

Anti-cancer chemotherapy: 28 days prior to specimen date: Yes: No: Unknown:

Go to Antibiotics Section

ANTIBIOTICS

Number of antibiotic courses: prescribed 28 days prior

Antibiotic name	Indication	Date started	Date Stopped
		dd / mm / yyyy	dd / mm / yyyy
		dd / mm / yyyy	dd / mm / yyyy
		dd / mm / yyyy	dd / mm / yyyy
		dd / mm / yyyy	dd / mm / yyyy
		dd / mm / yyyy	dd / mm / yyyy

On completion please transfer this information to the mandatory surveillance of Gram-negative bacteraemia surveillance system at: <https://hcaidcs.phe.org.uk/WebPages/GeneralHomePage.aspx>
<https://hcaidcs.phe.org.uk>

Guidance on the completion of the form

bacteraemia and each case diagnosed on or after April 2017 in England meeting the following case definition of *Klebsiella* spp. and *Pseudomonas aeruginosa*.

1. All laboratory confirmed cases of bacteraemia caused by *E.coli*, *Klebsiella* spp. or *P. aeruginosa*.
2. This includes all Gram-negative positive blood cultures identified within each trust, whether clinically significant or not, whether treated or not, whether acquired in the trust providing the testing or not.
3. All cases should be reported regardless of location or origin of the patient at the time the specimen was taken i.e. regardless of whether the patient was in a hospital or another setting; this includes blood cultures taken within 3 days of admission to hospital and cases amongst Welsh patients diagnosed in English laboratories.
4. Positive blood cultures taken within 14 days of the first sample should not be reported as they are considered to be the same episode, unless a negative blood culture has been obtained in the interim period. Positive blood cultures taken more than 14 days after the first sample of each episode should be reported, as these are considered to be part of a new episode.
 An "episode" relates to the 14 day period following the initial specimen (or subsequent specimens each greater than 14 days from the previous).

Definitions

Patient Detail information should be completed by the microbiologist on identification of an Gram-negative positive blood culture.

Episode Category: This allows the user to indicate whether the record applies to a new infectious episode; a continuing infection or whether the patient has suffered a repeat infection or relapse.

- **New infection** - is the first positive for a patient or an episode after 3 months without positive blood cultures.
- **Continuing infection** - is for a result where the patient has had on-going positive blood cultures but is >14days since the initial positive so is counted as a new episode.
- **Repeat/relapse** - patient has had positive blood cultures in the past 3 months but with negative blood cultures up to this positive result.

Dialysis: Record whether the patient was dependent on renal dialysis at the time the specimen was taken and if so which type of dialysis (established RF if patient was dialysis dependent prior to current admission).

Patient Category: Identifies the category of patient at the time the specimen was taken.

- **In - patient** – a patient already admitted to hospital at the time the specimen was taken
- **Outpatient** – a patient who is not admitted and was receiving outpatient care at the time the specimen was taken.
- **A&E only** – a patient who was receiving care in an A&E department when the specimen was taken irrespective of whether they were subsequently admitted.
- **Emergency assessment** – a patient receiving care on a non admissions ward at the time the sample was taken; in an emergency assessment unit.
- **Regular attender** – patients who make regular visits to hospital, for broadly similar treatment, and are discharged the same day; such as patients on dialysis or plasmapheresis.

Admitted this episode: Admission method indicates the primary reason why a patient is admitted for in - patient or day patient care.

One of the following should be selected:

- **Waiting list** - A waiting list admission occurs when a patient whose name was on an inpatient or day case waiting list for the specialty is admitted to that specialty as planned.
- **Emergency** - An emergency admission occurs when, for clinical reasons, a patient is admitted at the earliest possible time after seeing a doctor. The patient may or may not be admitted through Accident & Emergency.
- **Planned (deferred)** - A patient admitted as planned to the specialty as an inpatient or day patient. A deferred admission occurs when a patient whose name was on the deferred admission waiting list for the specialty, is admitted, as planned, to the specialty as an inpatient or day patient.
- **Other** – any other type of admission including maternity and neonatal admissions and transfer from another provider.

Specialty: Records the specialty of the consultant the patient was under at the time the specimen was taken

Provenance of Patient: Records where the patient was located prior to this hospital admission, such as home (normal place of residence), other hospitals or abroad.

Primary focus of bacteraemia: The anatomical location / system believed by the microbiologist attending to the patient to be the most likely, on the basis of their clinical judgement, initial primary focus or source of the infection. Secondary sites resulting from a complication are not included. **Only one can be selected.**

- **No clinical signs of infection** – the patient did not show signs of Gram-negative sepsis and did not require treatment i.e. the culture result is believed to represent contamination
- **Unknown** – although the bacteraemia was believed to be genuine on clinical grounds, it was not possible to identify its origin with any reasonable degree of certainty.
- **Urinary catheter manipulated in last 28 days:** Whether urinary catheter had been manipulated for clinical purpose in 28 days prior to the onset of infection.
- **Hepatobiliary procedure 28 days prior:** Any procedure performed on hepatobiliary organs, such as Magnetic Resonance Cholangiopancreatography (MRCP) or Endoscopic Retrograde Cholangio-Pancreatography (ERCP)
- **UTI treatment 28 days prior:** Patient has received medical care in 28 days prior to onset of bacteraemia with intention of treating a urinary tract infection.
- **Intubated or extubated in 28 days prior to onset:** Whether endotracheal or PT intubation was inserted or removed in last 28 days
- **Surgery:** The patient has undergone surgery in the past 30 days (if no implant was inserted), or past year if an implant was inserted.
- **Open wounds or ulcers:** Patient has an unhealed wound or ulcer in 28 days prior to onset of bacteraemia
- **Diabetic foot ulcer or infection:** Patient has had an unhealed diabetic ulcer or diabetes-related infection of the foot in the 28 days prior to onset of bacteraemia.
- **Absolute neutrophil count < 500 (0.5) cells/µl:** Patient has an absolute neutrophil count of less than 500 cells/µl at time of onset of bacteraemia.

Number of antibiotic courses prescribed in 28 days prior: Number of antibiotic courses patient has received in 28 days prior to onset of bacteraemia

The form should be stored securely or destroyed immediately if it contains patient identifiable information; please refer to local security policy for further guidance.
 First published: June 2017

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