History

Date of onset of symptoms _ _/_ _/_ _ _ _

Route of admission A and E ☐ GP ☐ Other ☐

Date of admission to hospital* _ _ /_ _/_ _ _ _ Time of admission (24 hour clock) _ _: _ _

*record time and date of admission to A and E if admitted via A and E

Did the patient have any of the following symptoms?

Fever or history of fever	Yes ☐	Duration (hours)		No ☐	Unknown ☐
Headache	Yes ☐	Duration (hours)		No ☐	Unknown ☐
Neck Stiffness	Yes ☐	Duration (hours)		No ☐	Unknown ☐
Photophobia	Yes ☐	Duration (hours)		No ☐	Unknown ☐
Diarrhoea	Yes ☐	Duration (hours)		No ☐	Unknown ☐
Nausea	Yes ☐	Duration (hours)		No ☐	Unknown ☐
Vomiting	Yes ☐	Duration (hours)		No ☐	Unknown ☐
Myalgia	Yes ☐	Duration (hours)		No ☐	Unknown ☐
Rash	Yes ☐	Duration (hours)		No ☐	Unknown ☐
Confusion	Yes ☐	Duration (hours)		No ☐	Unknown ☐
Seizures	Yes ☐	Duration (hours)		No ☐	Unknown ☐
Cough	Yes ☐	Duration (hours)		No ☐	Unknown ☐
Weight Loss	Yes ☐	Duration (hours)		No ☐	Unknown ☐
Night sweats	Yes ☐	Duration (hours)		No ☐	Unknown ☐

Any other significant symptoms please document below:

Vaccination history

Has the patient received any of the following vaccinations?

Pneumococcal PPV 23	Y ☐	N ☐	If yes when (year) _ _ _ _
Pneumococcal PCV 13	Y ☐	N ☐	If yes when (year) _ _ _ _
Pneumococcal PCV 7	Y ☐	N ☐	If yes when (year) _ _ _ _
Pneumococcal vaccine – unknown type	Y ☐	N ☐	If yes when (year) _ _ _ _
Meningococcal C	Y ☐	N ☐	If yes when (year) _ _ _ _
Meningococcal ACWY	Y ☐	N ☐	If yes when (year) _ _ _ _
Meningococcal B	Y ☐	N ☐	If yes when (year) _ _ _ _
Meningococcal vaccine – unknown type	Y ☐	N ☐	If yes when (year) _ _ _ _
Haemophilus influenzae type B	Y ☐	N ☐	If yes when (year) _ _ _ _

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Travel history

Has the patient travelled to any of the following places in the last 12 months?

India Y ☐ N ☐ How long was the patient resident there? _____

Bangladesh Y ☐ N ☐ How long was the patient resident there? _____

Pakistan Y ☐ N ☐ How long was the patient resident there? _____

Sub Saharan Africa Y ☐ N ☐ How long was the patient resident there? _____

Has the patient travelled anywhere else outside the UK in the last 12 months? Y ☐ N ☐ Unknown ☐

If yes, where? _____

and when did they return (month and year)? _ _/_ _/_ _ _ _ (please enter 01 if exact day unknown)

Has the patient ever lived outside the UK? Y ☐ N ☐ Unknown ☐

If so where? _____

When did they move to the UK (month and year OR year)? _ _ _/_ _ _ _

Ethnicity

White

British ☐

Irish ☐

Other White ☐

Asian or Asian British

Indian ☐

Pakistani ☐

Bangladeshi ☐

Chinese ☐

Other Asian ☐

Black or Black British

Caribbean ☐

African ☐

Other Black ☐

Mixed

White and Black Caribbean ☐

White and Black African ☐

White and Asian ☐

Other Mixed ☐

Other ethnic group ☐

Examination

On examination did the patient have any of the following?

Photophobia	Y ☐	N ☐	Unknown ☐
Neck Stiffness	Y ☐	N ☐	Unknown ☐
Rash	Y ☐	N ☐	Unknown ☐
Any focal neurology	Y ☐	N ☐	Unknown ☐

If focal neurology was present please expand in box below

What was the patient's GCS on admission (lowest value recorded in first 24 hours) ☐

What was the patient's temperature on admission (highest value in first 24 hours) ☐

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Blood results (record results nearest to date of admission)

WCC ☐☐☐.☐☐ x10^9 /L

Neuts ☐☐☐.☐☐ x10^9 /L

Lymphs ☐☐☐.☐☐ x10^9 /L Platelets ☐☐☐.☐ x 10^9/L

Hb ☐☐.☐ g/dL (if the result at your site is in g/L please divide by 10 before inserting the value here)

CRP < 10mg/L ☐ **OR** ☐☐☐ mg/L Procalcitonin ☐☐.☐☐ ng/ml

Sodium ☐☐☐ mmol/L

PT ☐☐.☐ seconds **OR** INR ☐☐.☐

APTT ☐☐.☐ seconds

Blood Cultures

Were blood cultures taken? Y ☐ N ☐

Date and time first set of blood cultures were taken? Date _ _ /_ _/_ _ _ _ Time (24h) __ __:__ __

Was blood culture positive Y ☐ N ☐

Blood Gram Film Result

Not done	☐	No organisms seen	☐	Yeast	☐
Gram positive cocci ?strep	☐	Gram positive cocci ?staph	☐	Gram negative cocci	☐
Gram positive bacilli	☐	Gram negative bacilli	☐	Other (expand below)	☐

Other: _____

Blood Culture Result

No growth	☐	*Streptococcus pneumoniae*^	☐	*Neisseria meningitidis*^	☐
Listeria monocytogenes^	☐	*Haemophilus influenzae*^	☐	*Cryptococcus neoformans*	☐
Staphylococcus aureus	☐	*Escherichia coli*	☐	Other (please state below)	☐

Other: _____

^Please record serotype/serogroup ☐

Blood PCR

Meningococcal PCR Pos ☐ Neg ☐ Not done ☐ Date _ _ /_ _/_ _ _ _ Time (24h) _ _:_ _

Please record serotype if positive ☐

Pneumococcal PCR Pos ☐ Neg ☐ Not done ☐ Date _ _ /_ _/_ _ _ _ Time (24h) _ _:_ _

Any other PCR on blood Pos ☐ Neg ☐ Please state which below (including 16S and result)

CSF results

Did the patient have an LP? Y ☐ N ☐

If no, please give reasons:

Unsuccessful attempts ☐ Clinical contraindication ☐ Patient refused ☐

LP no longer clinically indicated after enrolment ☐ Other (please state below) ☐

Other: _____

Date and time of lumbar puncture Date _ _/_ _/_ _ _ _ Time (24h) _ _:_ _

Opening pressure ☐☐.☐ cm CSF Not done ☐

White cells ☐ <5 ☐☐☐☐☐☐ per mm^3 or $x10^6$/L

Red cells ☐ <1 ☐☐☐☐☐☐ per mm^3 or $x10^6$/L

Lymphocytes ☐☐☐ %

Neutrophils/Polymorphs ☐☐☐ %

Protein ☐☐.☐☐ g/L

CSF glucose ☐☐.☐ mmol/L Not done ☐

Concurrent blood glucose** ☐☐.☐ mmol/L Date taken _ _/_ _/_ _ _ _ Time (24h) _ _:_ _

(**must be taken within 4 hours of the LP, record capillary BM if lab glucose not done)

Gram Film result

Not done ☐	No organisms seen ☐	Yeast ☐
Gram positive cocci ?strep ☐	Gram positive cocci ?staph ☐	Gram negative cocci ☐
Gram positive bacilli ☐	Gram negative bacilli ☐	Other (expand below) ☐

Other:_____

Microscopy for AFBs

Auramine	Positive ☐	Negative ☐	Not done ☐
Ziehl Neilsen	Positive ☐	Negative ☐	Not done ☐

CSF Culture result

No growth ☐	*Streptococcus pneumoniae*^ ☐	*Neisseria meningitidis*^ ☐
Listeria monocytogenes^ ☐	*Haemophilus influenzae*^ ☐	*Mycobacterium tuberculosis* ☐
Cryptococcus neoformans ☐	*Staphylococcus aureus* ☐	*Escherichia coli* ☐
Other (please state) ☐		

Other: _____

^Please record serotype/serogroup ☐

CSF PCR results

Meningococcal ^	Positive	☐	Negative	☐	Not done	☐
Pneumococcal	Positive	☐	Negative	☐	Not done	☐
HSV-1	Positive	☐	Negative	☐	Not done	☐
HSV-2	Positive	☐	Negative	☐	Not done	☐
Enterovirus^	Positive	☐	Negative	☐	Not done	☐
VZV	Positive	☐	Negative	☐	Not done	☐
Mycobacterium tuberculosis	Positive	☐	Negative	☐	Not done	☐

Other (please state) _____

^Please record typing of any PCR positive for meningococci or enterovirus ☐

Other investigations

Viral throat swab (enterovirus PCR)			Positive	☐	Negative	☐	Not done ☐
Stool sample/rectal swab (enterovirus PCR)			Positive	☐	Negative	☐	Not done ☐
HIV Test	Known HIV	☐	Positive	☐	Negative	☐	Not done ☐
Cryptococcal antigen			Positive	☐	Negative	☐	Not done ☐
Bacterial throat swab for culture			Positive	☐	Negative	☐	Not done ☐

If bacterial throat swab positive please state for what _____

Please document any other clinically significant diagnostic investigations below (including any further serological testing).

Imaging (please send all reports of abnormal scans to the Brain Infections office – anonymised)

Did the patient have a CXR performed? Yes ☐ No ☐ Unknown ☐

If yes: what was the date and time of CXR? Date _ _/_ _/_ _ _ _ Time (24h) _ _:_ _

Was the CXR Normal ☐ Abnormal ☐

Did the CXR show any features of acute pulmonary tuberculosis? Yes ☐ No ☐

Did the CXR show any features of miliary TB? Yes ☐ No ☐

Please expand on any abnormalities

Did the patient have a CT head performed? Yes ☐ No ☐ Unknown ☐

If yes: what was the date and time of CT? Date _ _/_ _/_ _ _ _ Time (24h) _ _:_ _

Was the CT Normal ☐ Abnormal ☐

Please expand on any abnormalities

Did the patient have an MRI head performed? Yes ☐ No ☐ Unknown ☐

If Yes: What was the date and time of MRI? Date _ _/_ _/_ _ _ _ Time (24h) _ _:_ _

Was the MRI Normal ☐ Abnormal ☐

Please expand on any abnormalities

If any of the above investigations were abnormal please fax or scan an anonymised version of the relevant investigation to the UK Meningitis team.

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Treatment

Is the patient allergic to any antibiotics Yes ☐ No ☐ Not documented ☐

Please document any antibiotic allergies below with reaction

Preadmission antimicrobials

Were antibiotics given prior to admission? Yes ☐ No ☐

If yes, who prescribed/gave them? GP ☐ A and E ☐ Paramedic ☐ Other (please state) ☐

Other: _____

Date and time given/started Date _ _/_ _/_ _ _ _ Time (24h) _ _:_ _

What antibiotic was given? Ceftriaxone/cefotaxime ☐ Benzylpenicillin ☐ Amoxicillin ☐ Other ☐

If other, please state which _____

By what route were the antibiotics given? IV ☐ IM ☐ Oral ☐

How many doses did the patient have before admission? ☐

Was the patient on aciclovir/valaciclovir prior to admission? Yes ☐ No ☐

If yes, what dose and when was this started?

Please document all treatment given for meningitis (including any given on discharge) (include antibiotics, antivirals and steroid therapy).

Name	Route	Dose	Frequency	Date and time of first dose	Duration (no of doses)
				_ _/_ _/_ _ _ _ _ _:_ _	
				_ _/_ _/_ _ _ _ _ _:_ _	
				_ _/_ _/_ _ _ _ _ _:_ _	
				_ _/_ _/_ _ _ _ _ _:_ _	
				_ _/_ _/_ _ _ _ _ _:_ _	
				_ _/_ _/_ _ _ _ _ _:_ _	

Date received at Brain Infections UK _ _/_ _/_ _ _ _
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Final Diagnosis

What was the final diagnosis as recorded on the discharge letter?

Which of the following was the final diagnostic category? (See Final Diagnostic Category Cribsheet)

Not meningitis – other viral illness	☐	Not meningitis – other bacterial illness	☐				
Not meningitis – migraine/headache	☐	Not meningitis other	☐	Enteroviral meningitis	☐		
Herpes simplex meningitis	☐	Varicella meningitis	☐	Other proven viral meningitis	☐		
Pneumococcal meningitis	☐	Meningococcal meningitis	☐	Other proven bacterial meningitis	☐		
Presumed viral meningitis	☐	Presumed bacterial meningitis	☐	TB meningitis	☐		
Other meningitis	☐	Encephalitis	☐	Unknown	☐		

Date of discharge/death from hospital __ __/__ __/__ __ __ __

Did the patient die? Yes ☐ No ☐

Did the patient need ITU care? Yes ☐ No ☐ If yes how long for (days)? _____

Please record any other relevant comments below

Outcomes

Glasgow Coma Scale on Discharge ☐

Referring to descriptors below please record the Modified Rankin Scale on admission and at discharge.

Modified Rankin Scale

Admission ☐

Discharge ☐

0 ***No symptoms at all***

1 ***No significant disability*** *despite symptoms; able to carry out all usual duties and activities*

2 ***Slight disability****; unable to carry out all previous activities, but able to look after own affairs without assistance*

3 ***Moderate disability****; requiring some help, but able to walk without assistance*

4 *Moderately severe disability; unable to walk without assistance and unable to attend to own bodily needs without assistance*

5 ***Severe disability****; bedridden, incontinent and requiring constant nursing care and attention*

6 ***Dead***

Referring to descriptors below please record the Glasgow Outcome Score on discharge.

GOS on discharge? ☐

1 ***Good Recovery*** *Capacity to resume normal occupational and social activities, although there may be minor physical or mental deficits or symptoms*

2 ***Moderate Disability*** *Independent and can resume almost all activities of daily living. Disabled to the extent that they cannot participate in a variety of social and work activities*

3 ***Severe Disability*** *No longer capable of engaging in most previous personal, social or work activities. Limited communication skills and have abnormal behavioural or emotional responses. Typically are partially or totally dependent on assistance from others in daily living*

4 ***Persistent Vegetative State*** *Not aware of surroundings or purposely responsive to stimuli*

5 ***Dead***

Optional Samples

Substudies ***6.9.3, 6.9.4*** and ***6.9.5***.

Has the patient consented to having extra sample of blood/CSF taken for research purposes? Yes No

If yes, has the patient had samples taken for (please tick):

Study	Sample	Tube	Amount	Taken	Date Taken	Time Taken
Biomarkers of infection	Blood	PaxGene (at recruitment)	2.5ml	☐		
	Blood	PaxGene (at 3-5 days)	2.5ml	☐		
	CSF	PaxGene	2.5ml	☐		
Proteomics	Blood	EDTA	4.5ml	☐		
DNA Sampling	Blood	EDTA	18ml	☐		
	CSF	Plain	3-5ml	☐		
Serum sample	Blood	Clotted sample	3-5ml	☐		

Has leftover CSF been located and stored?

Yes ☐ No ☐

Any comments re sampling/storage? (Please use this box to record the approximate amount of samples stored if known.)

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