

Demographics

Record ID

CPR number

Primary Investigator

- ☐ Aalborg
☐ Skejby
☐ Odense
☐ Roskilde
☐ Hillerød
☐ Hvidovre
☐ Rigshospitalet
☐ Herlev
(Investigator from including centre)

Type of CNS infection

- ☐ Bacterial meningitis
☐ Viral meningitis
☐ Encephalitis
☐ Brain abscess
☐ Neuroborreliosis
☐ Neurosyphilis
☐ Uncertain/unknown CNS infection entity
☐ Other

Please describe

Previous CNS infection registered in DASGIB?

- ☐ Yes
☐ No
(To identify patients with multiple separate CNS infections in DASGIB)

Candidate for TRIM test study

- ☐ Yes
☐ No

Bloodsample (RNA stabilisation tubes) taken

- ☐ Yes
☐ No

Date and time of TRIM test blood sample?

Referred from doctor or admitted by 112/ambulance?

- ☐ Referred by doctor?
☐ By alarming emergency services (ambulance) or patient shows up in A&E without referral?

Admission or referral diagnosis?

Day of admission

(First day of admission for this disease regardless of which department)

Admitted directly at centre ☐ Yes
☐ No
(Admitted directly at specialised ward/consulted with Dept. of Infectious diseases)

Hospital and department of primary admission?

Physical status before CNS infection? ☐ No physical/cognitive deficits
☐ Mild physical/cognitive deficits
☐ Moderate physical/cognitive deficits
☐ Severe physical/cognitive deficits

Functional status before CNS infection? ☐ Full-time work/study
☐ Part-time work/study
☐ Unemployed
☐ Disability pension/sick leave or other welfare based income
☐ Retired, totally independent
☐ Retired, dependent on some help
☐ Retired, living in nursing home or equivalent
☐ Vegetative state
☐ Other
☐ Not reported

Please specify?

Immunosuppression? ☐ None
☐ Alcohol abuse
☐ IV substance abuse
☐ Organ transplant
☐ Solid cancer (non-skin cancer except melanoma)
☐ Haematological cancer
☐ Diabetes mellitus
☐ Asplenia
☐ HIV
☐ Prednisolone >7.5 mg/day
☐ Primary immunodeficiency
☐ Other immunosuppressive therapy
(Please specify)

Please specify?

Relevant travel history within 30 days of debut of symptoms? ☐ Yes
☐ No
☐ Not reported

Please specify?

Duration of symptoms before admission?

((days))

Bacterial meningitis incl. unknown pathogen

Characteristics at admission?

Headache

- ☐ Yes
☐ No
☐ Not reported

Fever before admission?

- ☐ Yes
☐ No
☐ Not reported

Nausea/vomiting

- ☐ Yes
☐ No
☐ Not reported

Photophobia/phonophobia

- ☐ Yes
☐ No
☐ Not reported

Seizures before admission?

- ☐ Yes
☐ No
☐ Not reported

Confusion?

- ☐ Yes
☐ No
☐ Not reported

Neck stiffness

- ☐ Yes
☐ No
☐ Not reported

Petechiae?

- ☐ Yes
☐ No
☐ Not reported

Glasgow Coma Scale score at admission?

- ☐ 3
☐ 4
☐ 5
☐ 6
☐ 7
☐ 8
☐ 9
☐ 10
☐ 11
☐ 12
☐ 13
☐ 14
☐ 15
☐ Could not be identified

Temperature at admission

(Celsius)

Pulse rate at admission

(Beats/min.)

Systolic blood pressure at admission

(mm Hg)

Diastolic blood pressure at admission?

(mm Hg)

Arterial blood gas within 4 hours of admission?

☐ Yes
☐ No

Highest blood lactate on arterial puncture within 4 hours of admission?

Lowest pO₂ on arterial puncture within 4 hours of admission?

(kPa)

Lowest pCO₂ on arterial puncture within 4 hours of admission?

(kPa)

ICP measured at lumbar puncture

☐ Yes
☐ No

What was the pressure?

(cm H₂O)

Neurological deficits?

☐ Yes
☐ No
☐ Not reported

Neurological deficits, specify

☐ Cranial nerve paresis
☐ Sensory/motor deficits
☐ Other

Other neurological deficits, specify

Other relevant symptoms or findings?

Microbiology

Causative bacteria

- ☐ S. pneumoniae
☐ N. meningitidis
☐ L. monocytogenes
☐ S. aureus
☐ E. coli
☐ H. influenzae
☐ Other
☐ Unidentified

Please specify which bacteria?

Positive CSF microscopy?

- ☐ Yes
☐ No

Please specify

- ☐ Gram-positive cocci
☐ Gram-negative cocci
☐ Other

Please specify

Causative pathogen found in cultures?

- ☐ Yes
☐ No

Positive culture specified

- ☐ CSF
☐ Blood
☐ Sputum
☐ Ear
☐ Sinus
☐ Petechiae

Causative pathogen found by PCR based technology?

- ☐ Yes
☐ No

Positive PCR, specify

- ☐ CSF
☐ Blood

Antibody/antigen diagnosis?

- ☐ Yes
☐ No
(E.g. PUT, MAT etc)

Antibody/antigen diagnosis, please specify

- ☐ PUT
☐ MAT
☐ Other

Please specify, other diagnostics

Treatment

Pre-hospital antibiotics

- ☐ No
☐ IV/IM on suspicion of meningitis
☐ Oral
☐ Don't know

Please specify pre-hospital iv/im treatment

Please specify pre-hospital oral treatment

Sepsis treatment initiated before meningitis treatment?

- ☐ Yes
☐ No

Causative pathogen sensitive to empiric antibiotics for sepsis?

- ☐ Yes
☐ No

Timing of sepsis treatment?

Time of empiric meningitis treatment

(Time of meningitis treatment)

Empiric antibiotic regimen for meningitis

- ☐ Benzylpenicillin
☐ Ampicillin
☐ Ceftriaxone
☐ Cefotaxime
☐ Meropenem
☐ Other
(In CNS dosages)

Please specify

Date of targeted antibiotic treatment for meningitis

Targeted antibiotic regimen for meningitis

- ☐ Benzylpenicillin
☐ Ampicillin
☐ Ceftriaxone
☐ Cefotaxime
☐ Meropenem
☐ Other
(In CNS dosages)

Please specify

Total days of antibiotic treatment for bacterial meningitis?

(Days)

Empiric aciclovir treatment until diagnosis was clear?

- ☐ Yes
☐ No

Days of empiric aciclovir treatment?

(Days)

Adjuvant dexamethasone?

- ☐ Yes
☐ No

Adjuvant dexamethasone within 4 hours of iv antibiotics?

- ☐ Yes
☐ No

Steroid treatment in form of hydrocortisone for refractory shock?

- ☐ Yes
☐ No

ENT specialist evaluation?

- ☐ Normal
☐ Not normal
☐ Not done

ENT evaluation, specify

ICP management?

- ☐ None
☐ Elevated bed rest (30 degrees)?
☐ Respirator set to $pCO_2 < 4.3$?
☐ Hyperosmolar fluids (mannitol or hypertonic NaCl)?
☐ External Ventricular drainage?
☐ Craniotomy?
☐ Other?

Please specify?

Complications during admission

Complications during admission

- ☐ None
☐ Descending GCS
☐ New onset neurological deficits
☐ Seizures
☐ Septic shock
☐ DIC
☐ Other organ failures

Persisting complications after admission

- ☐ None
☐ Hearing loss not requiring hearing aid
☐ Hearing loss requiring hearing aid
☐ Cranial nerve palsy
☐ Motor/sensory deficit
☐ Seizures/epilepsy
☐ Hydrocephalus
☐ Cerebral infarction
☐ Cognitive deficits
☐ DIC sequelae
☐ Other

Please specify

Encephalitis/myelitis incl. unknown pathogen

Predisposing conditions?

History of oral or genital herpes simplex?

- ☐ Yes
☐ No
☐ Not reported

History of herpes zoster?

- ☐ Yes
☐ No
☐ Not reported

History of insect bite/zoonotic exposure?

- ☐ Yes
☐ No
☐ Not reported

Other predisposing condition?

Clinical presentation

Headache

- ☐ Yes
☐ No
☐ Not reported

History of fever

- ☐ Yes
☐ No
☐ Not reported

Nausea/vomiting?

- ☐ Yes
☐ No
☐ Not reported

Meningealia

- ☐ Yes
☐ No
☐ Not reported
(1 or more of neck stiffness, photo- or photophobia, fever, headache)

Seizures before or at admission?

- ☐ Yes
☐ No
☐ Not reported

GCS at admission

- ☐ 3
☐ 4
☐ 5
☐ 6
☐ 7
☐ 8
☐ 9
☐ 10
☐ 11
☐ 12
☐ 13
☐ 14
☐ 15
☐ Could not be found

Temperature at admission

Personality changes?

- ☐ Yes
☐ No
☐ Not reported

Confusion or disorientation?

- ☐ Yes
☐ No
☐ Not reported

Other cognitive impairment?

- ☐ Yes
☐ No
☐ Not reported

Please specify?

Cranial nerve palsies?

- ☐ Yes
☐ No
☐ Not reported

Focal neurological deficit?

- ☐ Yes
☐ No
☐ Not reported

Please specify?

Aphasia?

- ☐ Yes
☐ No
☐ Not reported

Ataxia?

- ☐ Yes
☐ No
☐ Not reported

Gait disturbance?

- ☐ Yes
☐ No
☐ Not reported

Other neurological deficit? ☐ Yes
☐ No

Please specify

Other relevant symptoms?

Case definition for encephalitis by the International Encephalitis Consortium - Note: Not a requirement for inclusion in DASGIB

Major criterion: Altered mental status >24 hours with no other explanation than encephalitis? ☐ Yes
☐ No
(Not required for inclusion in DASGIB)

Minor criteria for encephalitis?

- ☐ Documented fever >38 degrees Celsius within 72 hours before or after admission?
- ☐ New onset generalised or partial seizures with no other explanation?
- ☐ New onset focal neurological deficits?
- ☐ CSF WBC >5 cells/mL?
- ☐ New onset neuroimaging findings consistent with encephalitis?
- ☐ EEG consistent with encephalitis?

Diagnostics

CSF diagnostics performed?

- ☐ CSF culture for bacteria
- ☐ CSF pcr HSV, VZV, enterovirus
- ☐ HSV/VZV intrathecal index
- ☐ Autoimmune encephalitis antibodies in CSF
- ☐ Autoimmune encephalitis antibodies in blood
- ☐ TBE serology
- ☐ CSF for TB diagnostics (mic., culture, pcr)
- ☐ CSF borreliosis intrathecal antibody index
- ☐ CSF syphilis intrathecal antibody index
- ☐ CSF pcr for other viruses
- ☐ CSF 16s
- ☐ Other

Please specify

HIV test? ☐ Yes
☐ No

HIV positive? ☐ Yes
☐ No

EEG compatible with encephalitis? ☐ Yes
☐ Uncertain findings
☐ Normal
☐ Not done

Microbiological diagnosis?

- ☐ HSV 1
☐ HSV 2
☐ VZV
☐ Enterovirus
☐ Unknown infectious encephalitis
☐ HIV
☐ CMV
☐ EBV
☐ Listeria
☐ Tb
☐ Other

Please specify

Causative pathogen diagnosis established by?

- ☐ No causative pathogen detected
☐ PCR
☐ Intrathecal antibody index
☐ Serology
☐ Other
(key method to establish microbiological diagnosis)

Please specify?

Treatment

Aciclovir treatment

- ☐ Yes
☐ No

Date and time of i.v. aciclovir initiation

Total duration of iv aciclovir

(Days)

Follow-up with oral aciclovir/valaciclovir

- ☐ Yes
☐ No

Duration of oral follow-up treatment

(Days)

Empiric antibiotic treatment for bacterial CNS infection?

- ☐ Yes
☐ No

Days of empiric antibiotic treatment for CNS infection?

(Days)

Adjunctive corticosteroid treatment

- ☐ Yes
☐ No

ICP treatment

- ☐ Yes
☐ No

Viral meningitis incl. unknown pathogen

Predisposing conditions?

Oral or genital herpes? ☐ Yes
☐ No
☐ Not reported

Previous aseptic meningitis? ☐ Yes
☐ No
☐ Not relevant

Preceding or concomitant zoster? ☐ Yes
☐ No
☐ Not reported

Insect bite or other relevant animal exposure? ☐ Yes
☐ No
☐ Not reported

Virus-like disease among family and/or friends? ☐ Yes
☐ No
☐ Not reported

Clinical presentation

Prodromal upper airway disease? ☐ Yes
☐ No
☐ Not reported

Prodromal GI disease ☐ Yes
☐ No
☐ Not reported
(Viral gastroenteritis?)

Headache? ☐ Yes
☐ No
☐ Not reported

History of fever? ☐ Yes
☐ No
☐ Not reported

Photo- or phonophobia? ☐ Yes
☐ No
☐ Not reported

Nausea/vomiting? ☐ Yes
☐ No
☐ Not reported

Neck stiffness ☐ Yes
☐ No
☐ Not reported

Rash?

☐ Yes
☐ No
☐ Not reported

Please specify

Other symptoms of relevance

☐ Yes
☐ No

Please specify

Temperature at admission

GCS score at admission

☐ 3
☐ 4
☐ 5
☐ 6
☐ 7
☐ 8
☐ 9
☐ 10
☐ 11
☐ 12
☐ 13
☐ 14
☐ 15
☐ Could not be identified

Neurological deficits

☐ Yes
☐ No

Please specify

Diagnostics

CSF diagnostics performed

☐ CSF bacterial culture
☐ CSF pcr for HSV, VZV, enterovirus
☐ HSV/VZV Intrathecal index
☐ Borrelia intrathecal index
☐ Other

Please specify

Other diagnostics performed?

☐ HIV test?
☐ Screening for syphilis?

Microbiological diagnosis?

- ☐ HSV 1
☐ HSV 2
☐ VZV
☐ Enterovirus
☐ Borreliosis
☐ TBE
☐ Unknown pathogen
☐ Other

Please specify

Aciclovir treatment initiated

- ☐ Yes
☐ No

Date and time of start of aciclovir?

Date and time of stop of aciclovir?

Duration of iv aciclovir

(Days)

Follow-up with oral aciclovir/valaciclovir?

- ☐ Yes
☐ No

Total duration of antiviral treatment (not HIV)

(Days)

Treated empirically with antibiotics for bacterial meningitis at admission or lumbar puncture?

- ☐ Yes
☐ No

Date and time of start of empiric antibiotics for meningitis?

Date and time of stop of empiric antibiotics for meningitis?

Days of empiric antibiotic treatment for bacterial CNS infection?

(Days)

Adjunctive corticosteroids

- ☐ Yes
☐ No

Other antiviral/antibacterial/antiparasitic treatment?

- ☐ Yes
☐ No

Please specify

Brain Abscess incl. unknown pathogen

Predisposing conditions and risk factors

Predisposing or concomittant infection(s)?

- ☐ None
- ☐ Ear infection
- ☐ Sinusitis
- ☐ Dental infection
- ☐ Other contiguous infection
- ☐ Endocarditis
- ☐ Bacteremic spread of systemic infection
- ☐ Preceding meningitis
- ☐ Other

Please specify?

Other predisposing risk factors

- ☐ None
- ☐ Neurosurgery/ENT surgery
- ☐ Head trauma
- ☐ Predisposing heart condition
- ☐ Immunocompromise
- ☐ Arterio-venous malformations (e.g. pulmonary etc)
- ☐ Liver cirrhosis
- ☐ Malignancy
- ☐ Other

Specify type of surgery

Date of predisposing surgery?

Please specify type of trauma?

Date of predisposing trauma?

Please specify

Clinical presentation at admission

Headache? ☐ Yes
☐ No
☐ Not reported

Seizures before/at admission ☐ Yes
☐ No
☐ Not reported

Nausea/vomiting? ☐ Yes
☐ No
☐ Not reported

History of fever? ☐ Yes
☐ No
☐ Not reported

Cognitive impairment? ☐ Yes
☐ No
☐ Not reported

Personality changes? ☐ Yes
☐ No
☐ Not reported

Photo- or phonophobia? ☐ Yes
☐ No
☐ Not reported

Neck stiffness? ☐ Yes
☐ No
☐ Not reported

Cranial nerve palsy? ☐ Yes
☐ No
☐ Not reported

Paresis or sensory nerve deficit? ☐ Yes
☐ No
☐ Not reported

Aphasia? ☐ Yes
☐ No
☐ Not reported

Ataxia? ☐ Yes
☐ No
☐ Not reported

Gait disturbance? ☐ Yes
☐ No
☐ Not reported

Other neurological deficit? ☐ Yes
☐ No

Please specify any other neurological deficits?

Temperature at admission?

GCS at admission?

- ☐ 3
☐ 4
☐ 5
☐ 6
☐ 7
☐ 8
☐ 9
☐ 10
☐ 11
☐ 12
☐ 13
☐ 14
☐ 15
☐ Could not be found

Systolic blood pressure at admission?

(mm Hg)

Diastolic blood pressure at admission?

(mm Hg)

Diagnostics

Causative pathogen(s)

Diagnosis based upon (select several if applicable)

- ☐ Imaging and aspiration of pus (microbiology negative)
☐ Brain abscess culture positive
☐ Brain abscess PCR-based positive
☐ Imaging and blood culture positive
☐ Imaging and other relevant sample culture/pcr positive
☐ Imaging and serology
☐ Imaging and clinical response to treatment
☐ Other

Please provide details?

PCR of brain absces?

- ☐ Yes
☐ No

Multiple abscesses?

- ☐ Yes
☐ No

How many?

Size of abscess at diagnosis (largest)

(Largest diameter in cm)

Location(s) of abscess(es)?

- ☐ Frontal
- ☐ Temporal
- ☐ Parietal
- ☐ Occipital
- ☐ Mesencephalon
- ☐ Cerebellum
- ☐ Brainstem
- ☐ Other location

Please specify?

Aspiration/excision of brain abscess?

- ☐ Yes
- ☐ No

Type of intervention for diagnosis and/or treatment?

- ☐ Aspiration
- ☐ Stereotactic aspiration
- ☐ Craniotomy with aspiration
- ☐ Excision
- ☐ Other

Date of first procedure?

Repeated aspirations/excisions performed?

- ☐ Yes
- ☐ No

Date of second neurosurgical procedure?

How many neurosurgical procedures?

Please describe types and order of neurosurgical procedures performed?

Reasons for neurosurgical interventions (aspiration, excision, other)

- ☐ Diagnostic purposes only
- ☐ Size of abscess
- ☐ Impending rupture of abscess
- ☐ Number of abscesses
- ☐ Mass effect
- ☐ Increasing volume of abscess during antibiotic treatment
- ☐ Newly formed abscesses during treatment
- ☐ Abscess not responding to antibiotics alone
- ☐ Hydrocephalus
- ☐ Ventriculitis
- ☐ Other

Please specify

Treatment

Antibiotic therapy for infection other than brain abscess before culture of brain abscess?

- ☐ Yes
☐ No
☐ Not reported
(E.g. sepsis, pneumonia, UTI etc)

Please specify type, dosage and duration and timing before neurosurgical aspiration/excision?

Antibiotic therapy for brain abscess before culture of brain abscess?

- ☐ Yes
☐ No

Empiric antibiotic regimen for brain abscess

(Not including sepsis treatment before diagnosis)

Start of empirical antibiotics for brain abscess?

(Dosage and spectrum for abscess)

Final antibiotic regimen for brain abscess?

Start of final antibiotic regimen for brain abscess?

Stop of iv treatment?

(Days)

Consolidation therapy with oral antibiotics?

- ☐ Yes
☐ No
☐ Not reported

Type of oral antibiotics?

Stop of oral antibiotics?

(Days)

Adjunctive corticosteroids

- ☐ Yes
☐ No

Duration of adjunctive corticosteroids

(Days)

Other neurosurgical treatment

- ☐ Yes
☐ No

Types of other neurosurgical treatments

- ☐ Intracranial pressure monitoring device
☐ Ventricular external drainage
☐ Ventricular shunt
☐ Other

Please specify

Intrathecal antibiotics?

- ☐ Yes
☐ No

Anticonvulsive treatment during hospitalisation

- ☐ Yes
☐ No

Anticonvulsive treatment at discharge?

- ☐ Yes
☐ No

Anticonvulsive treatment at follow-up?

- ☐ Yes
☐ No

Complications during treatment

Complications during treatment

- ☐ No complications
☐ Intraventricular rupture
☐ Hydrocephalus
☐ Sub- or epidural empyema
☐ Seizures
☐ Cerebral infarction
☐ Venous sinus thrombophlebitis
☐ Other

Please specify?

Date of onset/diagnosis of complications?

New onset complications at follow-up (e.g. seizures)?

Neuroborreliosis incl. suspected neuroborreliosis

Predisposing conditions

History of tick-bite

- ☐ Yes
☐ No
☐ Not reported

Date of tick-bite?

Time of tick-bite before admission?

- ☐ Don't know
☐ 0-14 days
☐ 15-28 days
☐ 29-120 days
☐ 121-180 days
☐ 181-365 days
☐ >1 year

History of erythema migrans?

- ☐ Yes
☐ No
☐ Not reported

Date of debut of erythema migrans

Time of erythema migrans before admission?

- ☐ Don't know
☐ 0-14 days
☐ 15-28 days
☐ 29-120 days
☐ 121-180 days
☐ 181-365 days
☐ >1 year

Clinical presentation

Erythema migrans at admission?

- ☐ Yes
☐ No

Headache?

- ☐ Yes
☐ No
☐ Not reported

Temperature at admission?

Cranial nerve palsy?

- ☐ Yes
☐ No
☐ Not reported

Which cranial nerves?

- ☐ Nervus facialis
☐ Nervus abducens
☐ Other

Please specify?

Bilateral

- ☐ Yes
☐ No
-

Extracranial neurological deficits?

- ☐ Yes
☐ No
☐ Not reported
-

Please describe neurological deficits?

- ☐ Paresis/paralysis
☐ Sensory deficits/pain
☐ Other
-

Please specify?

Location of extra-cranial deficit?

- ☐ Left arm
☐ Right arm
☐ Left leg
☐ Right leg
☐ Thorax
☐ Abdomen
☐ Pelvic/sacral region
☐ Other location
-

Please describe

Encephalitis?

- ☐ Yes
☐ No
(Very rare)
-

Please elaborate?

Other neurological deficits?

- ☐ Yes
☐ No
☐ Not reported
-

Please specify?

Meningeal?

- ☐ Yes
☐ No
☐ Not reported
(Rare, usually young children)
-

Other relevant symptoms/findings

Diagnosis

Diagnosis of neuroborreliosis

- ☐ Positive CSF intrathecal antibody index IgG
☐ Positive CSF intrathecal antibody index IgM
☐ CXCL-13
☐ Clinical diagnosis without laboratory confirmation
☐ Other

CSF Borrelia IgG index?

(Value)

CSF Borrelia IgM index?

(Value)

Please specify

Serum borrelia IgG positive?

- ☐ Yes
☐ No

Serum borrelia IgM positive

- ☐ Yes
☐ No

ECG performed

- ☐ Yes
☐ No

New AV-block

- ☐ Yes
☐ No

Treatment and course of admission

Initial antibiotics for neuroborreliosis?

- ☐ Benzylpenicillin
☐ Ceftriaxon
☐ Doxycyclin
☐ Other betalactam
☐ Other non-betalactam

Dosage of antibiotic?

Switch to oral treatment during course?

- ☐ Yes
☐ No

Which drug?

- ☐ Doxycyclin
☐ Other

Dosage?

Please specify?

Total duration of iv treatment

Total duration of antibiotic therapy for neuroborreliosis

Longterm follow-up at 1-3 months?

- ☐ Yes
☐ No
☐ Not reported

Regression of symptoms at discharge?

- ☐ Complete regression of symptoms
☐ Only mild symptoms
☐ Moderate symptoms (e.g. persisting slight lagophthalmos or continued need for paracetamol/NSAID)
☐ Severe (e.g. persisting lagophthalmos, continued need for membrane-stabilizing analgetics for neuropathic pain, or cognitive impairment leading to sick leave)
☐ No improvement in symptoms since admission

Long-term sequelae at 3 months follow-up?

- ☐ Complete regression of symptoms
☐ Only mild symptoms
☐ Moderate symptoms (e.g. persisting slight lagophthalmos or continued need for paracetamol/NSAID)
☐ Severe (e.g. persisting lagophthalmos, continued need for membrane-stabilizing analgetics for neuropathic pain, or cognitive impairment leading to sick leave)
☐ No improvement in symptoms since admission

Character of persisting symptoms at 3 months follow-up?

- ☐ Cranial nerve paresis
☐ Radicular pains
☐ Extremity paresis or sensory deficits
☐ Headache
☐ Fatigue
☐ Concentration or attention difficulties
☐ Other

Please specify persisting neurological symptoms?

Neurosyphilis incl. suspected neurosyphilis

Exposures and risk factors

HIV test?

- ☐ Yes
☐ No

Mode of transmission

- ☐ MSM
☐ Bisexual
☐ Heterosexual
☐ Contact with prostitute

Place of transmission

- ☐ Domestic
☐ Abroad

Please specify

Other venereal disease at time of diagnosis

- ☐ Yes
☐ No
(Not HIV)

Please specify

Clinical presentation

Patient history includes signs/symptoms of

- ☐ Primary genital lesion
☐ Primary lesion elsewhere
☐ Secondary syphilis including generalized rash
☐ Lymph node enlargement
☐ Weight loss
☐ Fatigue
☐ Visual disturbances
☐ Otogenic symptoms
☐ Neurological deficits
☐ Other

Please specify

Diagnosis

Clinical entity (summarised clinical presentation based upon symptoms and diagnostic procedures)?

- ☐ Meningitis
☐ Meningovascular disease
☐ Focal neurological deficits incl. general paresis
☐ Tabes dorsalis
☐ Gummatous neurosyphilis
☐ Ocular neurosyphilis
☐ Otogenic neurosyphilis
☐ Other neurological syphilitic disease
☐ Asymptomatic neurological disease

Please specify?

Please specify?

Diagnosis is based upon

- ☐ Positive intrathecal index
☐ Positive serology and pleocytosis
☐ Other
-

Please specify

Concomittant syphilitic lesions/disease outside the CNS?

- ☐ Yes
☐ No
-

Please specify?

Treatment and course of admission

Initial iv antibiotics for neurosyphilis?

- ☐ Benzylpenicillin
☐ Ceftriaxon
☐ Doxycyclin
☐ Other betalactam
☐ Other non-betalactam
-

Please specify?

Switch to oral treatment during course?

- ☐ Yes
☐ No
-

Which drug?

- ☐ Doxycyclin
☐ Other
-

Please specify

Total duration of iv treatment

(Days)

Total duration of antibiotic therapy for neurosyphilis

(Days. Omit if treatment is iv only (see above))

Long-term sequelae at 6 months follow-up?

- ☐ Yes
☐ No
☐ Not reported
☐ Lost to follow-up

Intensity of persisting symptoms at 6 after end of treatment?

- ☐ Only mild symptoms
☐ Moderate symptoms
☐ Severe symptoms
☐ No improvement in symptoms at all

Character of persisting sequelae at 6 months after end of treatment?

- ☐ Fatigue
☐ Headache
☐ Concentration or attention difficulties
☐ Other

Please specify

Lumbar puncture after 6 months of treatment?

- ☐ Yes
☐ No

Normalisation of CSF-leukocytes?

- ☐ Yes
☐ No

Satisfactory decrease in treponemal and non-treponemal tests?

- ☐ Yes
☐ No

Please specify?

Other CNS infections

Clinical presentation

Presumed but unverified type of CNS infection?

- ☐ Bacterial meningitis
- ☐ Encephalitis/myelitis
- ☐ Aseptic meningitis
- ☐ Brain abscess
- ☐ Neuroborreliosis
- ☐ Neurosyphilis
- ☐ Autoimmune encephalitis
- ☐ Not applicable

Please elaborate

Symptoms and findings at admission

- ☐ Headache
- ☐ Fever (patient history)
- ☐ Nausea/vomiting
- ☐ Neck stiffness
- ☐ Photophobia
- ☐ Phonophobia
- ☐ Cranial nerve palsy
- ☐ Motor nerve deficit
- ☐ Sensory nerve deficit
- ☐ Visuo/ocular disturbances
- ☐ Gait disturbance
- ☐ Monoradiculitis
- ☐ Polyradiculitis
- ☐ Other

Please specify

Temperature at admission

GCS at admission

- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11
- ☐ 12
- ☐ 13
- ☐ 14
- ☐ 15
- ☐ Could not be found

Systolic blood pressure at admission

Diagnostics

Diagnostic tests performed

- ☐ CSF culture for bacteria
- ☐ CSF pcr HSV, VZV, enterovirus
- ☐ CSF pcr for bacteria (multiplex or 16S)
- ☐ CSF mic., pcr, culture for mycobacteria
- ☐ CSF intrathecal index HSV/VZV
- ☐ CSF intrathecal index borreliosis
- ☐ CSF intrathecal index syphilis
- ☐ Autoimmune encephalitis antibodies in CSF
- ☐ Other CSF diagnostics
- ☐ Blood culture
- ☐ Blood pcr for bacteria
- ☐ Blood pcr for virus
- ☐ Blood serology
- ☐ Autoimmune encephalitis antibodies in blood
- ☐ Other tests

Please specify

Please specify

Please specify

Please specify

HIV test?

- ☐ Yes
- ☐ No

EEG performed

- ☐ Yes
- ☐ No

Treatment

Empirical antibiotic treatment for CNS infection?

- ☐ Yes
- ☐ No

Timing of antibiotic treatment

Empirical aciclovir initiated

- ☐ Yes
- ☐ No

Timing of empirical aciclovir treatment

(IV only)

Duration of iv aciclovir treatment

(Days)

Total duration of aciclovir treatment (iv+po)?

(Days)

Other empirical antimicrobial treatment?

Adjunctive corticosteroid therapy

☐ Yes
☐ No

Other treatment directed at raised ICP (intracranial pressure)

☐ Yes
☐ No

Laboratory data

Stored samples for biobank?

- ☐ Yes
☐ No

Which samples?

- ☐ CSF
☐ Blood
☐ Purified DNA (Skejby)

CSF - biochemistry at diagnosis

Date of lumbar puncture

(Time of lumbar puncture)

CSF leukocytes (no./ml)

(10E6/L)

CSF polymorphnuclear leukocytes

(10E6/L)

CSF mononuclear leukocytes

(10E6/L)

CSF erythrocytes

(10E6/L)

CSF glucose

(mmol/L)

B-glucose (at time of lumbar puncture

(mmol/L)

CSF protein (g/L)

(g/L)

CSF lactate

(mmol/L)

Several lumbar punctures performed?

- ☐ Yes
☐ No

Please clarify indication and results?

Blood biochemistry - day of admission

Blood culture during initial course of disease?

☐ Yes
☐ No

Date of (first) blood culture

Blood culture positive (first blood culture)?

☐ Yes
☐ No

C-reactive protein (mg/l)

B-leukocytes

(10E9/L)

B-neutrophils

(10E9/L)

B-haemoglobin

(mmol/L)

B-thrombocytes

(10E9/L)

P-creatinine

(Micromol/L)

INR

Radiology results

Diagnostic imaging performed

- ☐ Yes
☐ No

Diagnostic imaging

- ☐ Cranial CT
☐ Cranial MRI
☐ Chest x-ray
☐ MR columna
☐ Angiography
☐ Other

New pathology on cranial imaging?

- ☐ Normal
☐ Brain infarction
☐ Brain haemorrhage
☐ Brain oedema incl. generalized
☐ Signs of herniation
☐ Brain abscess
☐ Sub- or epidural empyema
☐ Hydrocephalus (obstructive or communicating)
☐ Encephalitic changes
☐ Sinus/ear/mastoid opacity
☐ Cranial defect and/or CSF leakage
☐ CNS malignancy
☐ Benign CNS tumour
☐ Intracranial vasculitis
☐ Brain cyst or hygroma
☐ ADEM
☐ Ventriculitis
☐ Other

Date of diagnosis of infarction?

(date of scan)

Location in brain?

- ☐ Frontal lobe
☐ Parietal lobe
☐ Temporal lobe
☐ Occipital lobe
☐ Cerebellum
☐ Brain stem
☐ Other deep structures incl. basal ganglia

Diagnosed by CT or MRI?

- ☐ Neither
☐ CT
☐ MRI
☐ Both

Date of diagnosis of haemorrhage?

(date of scan)

Location in brain?

- ☐ Epidural intracranial
- ☐ Subdural intracranial
- ☐ SAH
- ☐ Intraventricular haemorrhage
- ☐ Frontal lobe
- ☐ Parietal lobe
- ☐ Temporal lobe
- ☐ Occipital lobe
- ☐ Cerebellum
- ☐ Brain stem
- ☐ Other deep structures incl. basal ganglia

Diagnosed by CT or MRI?

- ☐ Neither
- ☐ CT
- ☐ MRI
- ☐ Both

Date of diagnosis of brain oedema?

(date of scan)

Location in brain?

- ☐ Generalised
- ☐ Frontal lobe
- ☐ Parietal lobe
- ☐ Temporal lobe
- ☐ Occipital lobe
- ☐ Cerebellum
- ☐ Brain stem
- ☐ Other deep structures incl. basal ganglia

Diagnosed by CT or MRI?

- ☐ Neither
- ☐ CT
- ☐ MRI
- ☐ Both

Date of diagnosis of cerebral herniation?

Diagnosed by CT or MRI?

- ☐ Neither
- ☐ CT
- ☐ MRI
- ☐ Both

Date of diagnosis of brain abscess?

Location in brain?

- ☐ Frontal lobe
- ☐ Parietal lobe
- ☐ Temporal lobe
- ☐ Occipital lobe
- ☐ Cerebellum
- ☐ Brain stem
- ☐ Other deep structures incl. basal ganglia

Diagnosed by CT or MRI?

- ☐ Neither
- ☐ CT
- ☐ MRI
- ☐ Both

Date of diagnosis of empyema?

Location in brain?

- ☐ Epidural
☐ Subdural

Diagnosed by CT or MRI?

- ☐ Neither
☐ CT
☐ MRI
☐ Both

Date of diagnosis of hydrocephalus?

Type of hydrocephalus

- ☐ Communicating
☐ Obstructive

Diagnosed by CT or MRI?

- ☐ Neither
☐ CT
☐ MRI
☐ Both

Date of diagnosis of encephalitic changes?

Location in brain?

- ☐ Frontal lobe
☐ Parietal lobe
☐ Temporal lobe
☐ Occipital lobe
☐ Cerebellum
☐ Brain stem
☐ Other deep structures incl. basal ganglia

Diagnosed by CT or MRI?

- ☐ Neither
☐ CT
☐ MRI
☐ Both

Date of diagnosis of opacity?

Location?

- ☐ Inner ear
☐ Mastoid
☐ Sinuses

Diagnosed by CT or MRI?

- ☐ Neither
☐ CT
☐ MRI
☐ Both

Date of diagnosis of cranial defect?

Diagnosed by CT or MRI?

- ☐ Neither
☐ CT
☐ MRI
☐ Both

Date of diagnosis of CNS malignancy?

Location in brain?

- ☐ Frontal lobe
- ☐ Parietal lobe
- ☐ Temporal lobe
- ☐ Occipital lobe
- ☐ Cerebellum
- ☐ Brain stem
- ☐ Other deep structures incl. basal ganglia

Diagnosed by CT or MRI?

- ☐ Neither
- ☐ CT
- ☐ MRI
- ☐ Both

Date of diagnosis of benign CNS tumour?

Location in brain?

- ☐ Frontal lobe
- ☐ Parietal lobe
- ☐ Temporal lobe
- ☐ Occipital lobe
- ☐ Cerebellum
- ☐ Brain stem
- ☐ Other deep structures incl. basal ganglia

Diagnosed by CT or MRI?

- ☐ Neither
- ☐ CT
- ☐ MRI
- ☐ Both

Date of diagnosis of intracranial vasculitis?

Please describe location?

Diagnosed by CT or MRI?

- ☐ Neither
- ☐ CT
- ☐ MRI
- ☐ Both

Date of diagnosis of hygroma or cyst?

Location in brain?

- ☐ Frontal lobe
- ☐ Parietal lobe
- ☐ Temporal lobe
- ☐ Occipital lobe
- ☐ Cerebellum
- ☐ Brain stem
- ☐ Other deep structures incl. basal ganglia

Diagnosed by CT or MRI?

- ☐ Neither
☐ CT
☐ MRI
☐ Both
-

Date of diagnosis of ADEM?

Location in brain?

- ☐ Frontal lobe
☐ Parietal lobe
☐ Temporal lobe
☐ Occipital lobe
☐ Cerebellum
☐ Brain stem
☐ Other deep structures incl. basal ganglia
-

Diagnosed by CT or MRI?

- ☐ Neither
☐ CT
☐ MRI
☐ Both
-

Date of diagnosis of venticulitis?

Diagnosed by CT or MRI?

- ☐ Neither
☐ CT
☐ MRI
☐ Both
-

Date of first cranial CT

(Date of first cranial CT)

Use of contrast (first scan)?

- ☐ Yes
☐ No
-

Results of cranial CT?

(Radiologist description)

Total number of cranial CT during admission?

Date of cranial MRI

(Date of first cranial MRI)

Use of contrast?

- ☐ Yes
☐ No
-

Cranial MRI results

(Radiologist description)

Total number of cranial MRI during admission?

Chest x-ray at admission?

- ☐ Normal/no new relevant findings
☐ Pneumonic infiltrate
(Other relevant findings can be listed in
"comments")
-

Results of MR columnna?

Results of angiography?

Other relevant imaging

Outcome data

Admission intensive care unit?

- ☐ Yes
☐ No

ICU management

- ☐ Assisted ventilation (incl. respirator)
☐ Vasopressor
☐ Dialysis
☐ ICP monitoring
(Please specify interventions)

Initial ICP level

(mm Hg)

Maximum ICP measured?

(mm Hg)

GOS score at discharge

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

GOS score at 1 month follow-up?

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

GOS score at 3 months follow-up

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

GOS score at 6 months follow-up

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

Date of last follow-up within the first year after diagnosis?

Neuropsychological evaluation after treatment

- ☐ Not done
☐ MOCA score
☐ Full neuropsychological evaluation
☐ Other

MOCA score result?

Please specify results of neuropsychological tests?

Date of death

General comments on patient?
