

CENTRAL NERVOUS SYSTEM (CNS)

IC – Intracranial Infection
(Brain Abscess, Subdural or Epidural Infection, Encephalitis)

DEFINITION: Intracranial infection must meet at least **ONE** ☐ of the following criteria:

☐ Criterion 1: (Last updated June, 2008)

- ☐ Patient has organisms cultured from **ONE** ☐ of the following:

- ☐ brain tissue

- ☐ dura

☐ Criterion 2: (Last updated June, 2008)

- ☐ Patient has **ONE** ☐ of the following:

- ☐ abscess seen during **ONE** ☐ of the following:

- ☐ surgical operation

- ☐ histopathologic examination

- ☐ evidence of intracranial infection seen during **ONE** ☐ of the following:

- ☐ surgical operation

- ☐ histopathologic examination

☐ Criterion 3: (Last updated June, 2008)

- ☐ Patient has at least **TWO** ☐ of the following signs or symptoms with no other recognized cause:

- ☐ headache

- ☐ dizziness

- ☐ fever ($>38^{\circ}\text{C}$)

- ☐ localizing neurologic signs

- ☐ changing level of consciousness

- ☐ confusion

AND

- ☐ Patient has at least **ONE** ☐ of the following:

- ☐ organisms seen on microscopic examination of **ONE** ☐ of the following:

- ☐ brain tissue obtained by **ONE** ☐ of the following:

- ☐ needle aspiration during **ONE** ☐ of the following:

- ☐ surgical operation

- ☐ autopsy

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- biopsy during **ONE** **△** of the following:

- △** surgical operation

- △** autopsy

- abscess tissue obtained by **ONE** **○** of the following:

- needle aspiration during **ONE** **△** of the following:

- △** surgical operation

- △** autopsy

- biopsy during **ONE** **△** of the following:

- △** surgical operation

- △** autopsy

- △** positive antigen test on **ONE** **□** of the following:

- blood

- urine

- △** radiographic evidence of infection (e.g. abnormal findings on ultrasound, CT scan, MRI, radionuclide brain scan, or arteriogram)

- △** choose **ONE** **□** of the following:

- diagnostic single antibody titer (IgM)

- 4-fold increase in paired sera (IgG) for pathogen

AND

- If diagnosis is made antemortem, physician institutes appropriate antimicrobial therapy

□ Criterion 4: (Last updated June, 2008)

- Patient ≤1 year of age has at least **TWO** **△** of the following signs or symptoms with no other recognized cause:

- △** fever (>38°C rectal)

- △** hypothermia (<37°C rectal)

- △** apnea

- △** bradycardia

- △** localizing neurologic signs

- △** changing level of consciousness

AND

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- Patient has at least **ONE** **△** of the following:
 - △** organisms seen on microscopic examination of **ONE** **□** of the following:
 - brain tissue obtained by **ONE** **○** of the following:
 - needle aspiration during **ONE** **△** of the following:
 - △** surgical operation
 - △** autopsy
 - biopsy during **ONE** **△** of the following:
 - △** surgical operation
 - △** autopsy
 - abscess tissue obtained by **ONE** **○** of the following:
 - needle aspiration during **ONE** **△** of the following:
 - △** surgical operation
 - △** autopsy
 - biopsy during **ONE** **△** of the following:
 - △** surgical operation
 - △** autopsy
 - △** positive antigen test on **ONE** **□** of the following:
 - blood
 - urine
 - △** radiographic evidence of infection, (e.g. abnormal findings on ultrasound, CT scan, MRI, radionuclide brain scan, or arteriogram)
 - △** Choose **ONE** **□** of the following:
 - diagnostic single antibody titer (IgM)
 - 4-fold increase in paired sera (IgG) for pathogen
- AND**
- If diagnosis is made antemortem, physician institutes appropriate antimicrobial therapy

REPORTING INSTRUCTIONS: (Last updated June, 2008)

- If meningitis and a brain abscess are present together, report the infection as IC.

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MEN – Meningitis or Ventriculitis

DEFINITION: Meningitis or ventriculitis must meet at least **ONE** ☐ of the following criteria:

☐ **Criterion 1:** (Last updated June, 2008)

- ☐ Patient has organisms cultured from cerebrospinal fluid (CSF)

☐ **Criterion 2:** (Last updated June, 2008)

- ☐ Patient has at least **ONE** ☐ of the following signs or symptoms with no other recognized cause:

- ☐ fever ($>38^{\circ}\text{C}$)

- ☐ headache

- ☐ stiff neck

- ☐ meningeal signs

- ☐ cranial nerve signs

- ☐ irritability

AND

- ☐ Patient has at least **ONE** ☐ of the following:

- ☐ positive CSF examination with **ONE** ☐ of the following:

- ☐ increased white cells

- ☐ elevated protein

- ☐ decreased glucose

- ☐ organisms seen on Gram's stain of CSF

- ☐ organisms cultured from blood

- ☐ positive antigen test of **ONE** ☐ of the following:

- ☐ CSF

- ☐ blood

- ☐ urine

- ☐ choose **ONE** ☐ of the following:

- ☐ diagnostic single antibody titer (IgM)

- ☐ 4-fold increase in paired sera (IgG) for pathogen

AND

- ☐ If diagnosis is made antemortem, physician institutes appropriate antimicrobial therapy

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□ Criterion 3: *(Last updated June, 2008)*

- Patient ≤1 year of age has at least **ONE** ☐ of the following signs or symptoms with no other recognized cause:
 - ☐ fever (>38°C rectal)
 - ☐ hypothermia (<37°C rectal)
 - ☐ apnea
 - ☐ bradycardia
 - ☐ stiff neck
 - ☐ meningeal signs
 - ☐ cranial nerve signs
 - ☐ irritability
- AND**
- Patient has at least **ONE** ☐ of the following:
 - ☐ positive CSF examination with **ONE** ☐ of the following:
 - ☐ increased white cells
 - ☐ elevated protein
 - ☐ decreased glucose
 - ☐ positive Gram stain of CSF
 - ☐ organisms cultured from blood
 - ☐ positive antigen test of **ONE** ☐ of the following:
 - ☐ CSF
 - ☐ blood
 - ☐ urine
 - ☐ Choose **ONE** ☐ of the following:
 - ☐ diagnostic single antibody titer (IgM)
 - ☐ 4-fold increase in paired sera (IgG) for pathogen
- AND**
- If diagnosis is made antemortem, physician institutes appropriate antimicrobial therapy

REPORTING INSTRUCTIONS: *(Last updated June, 2008)*

- Report meningitis in the newborn as healthcare-associated *unless* there is compelling evidence indicating the meningitis was acquired transplacentally.
- Report CSF shunt infection as SSI-MEN if it occurs ≤1 year of placement; if later or after manipulation/access of the shunt, report as CNS-MEN.
- Report meningoencephalitis as MEN.
- Report spinal abscess *with* meningitis as MEN.

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SA – Spinal Abscess Without Meningitis

DEFINITION: An abscess of the spinal epidural or subdural space, without involvement of the cerebrospinal fluid or adjacent bone structures, must meet at least **ONE** ☐ of the following criteria:

☐ **Criterion 1:** (Last updated June, 2008)

- Patient has organisms cultured from abscess in **ONE** ☐ of the following spinal spaces:
 - ☐ epidural space
 - ☐ subdural space

☐ **Criterion 2:** (Last updated June, 2008)

- Patient has an abscess in **ONE** ☐ of the following spinal spaces:
 - ☐ epidural space seen during **ONE** ☐ of the following:
 - ☐ a surgical operation
 - ☐ an autopsy
 - ☐ a histopathologic examination
 - ☐ subdural space seen during **ONE** ☐ of the following:
 - ☐ a surgical operation
 - ☐ an autopsy
 - ☐ a histopathologic examination

☐ **Criterion 3:** (Last updated June, 2008)

- Patient has at least **ONE** ☐ of the following signs or symptoms with no other recognized cause:
 - ☐ fever (>38°C)
 - ☐ back pain
 - ☐ focal tenderness
 - ☐ radiculitis
 - ☐ paraparesis
 - ☐ paraplegia

AND



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- Patient has at least **ONE** **△** of the following:
 - △** organisms cultured from blood
 - △** radiographic evidence of a spinal abscess (e.g. abnormal findings on myelography, ultrasound, CT scan, MRI, or other scans [gallium, technetium, etc.])
- AND**
- If diagnosis is made antemortem, physician institutes appropriate antimicrobial therapy

REPORTING INSTRUCTIONS: *(Last updated June, 2008)*

- Report spinal abscess *with* meningitis as MEN.