



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 January 1, 2013)*

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

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

- ☐ invasive procedure

- ☐ histopathologic examination

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

- ☐ invasive procedure

- ☐ histopathologic examination

☐ Criterion 3: *(Last updated January 1, 2013)*

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

- ☐ headache*

- ☐ dizziness*

- ☐ fever (>38°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 during **ONE** ☐ of the following:

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

- ☐ invasive procedure

- ☐ autopsy

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- biopsy during **ONE** **△** of the following:
 - △** invasive procedure
 - △** autopsy
- abscess tissue obtained by **ONE** **○** of the following:
 - needle aspiration during **ONE** **△** of the following:
 - △** invasive procedure
 - △** autopsy
 - biopsy during **ONE** **△** of the following:
 - △** invasive procedure
 - △** autopsy
- △** positive laboratory test of **ONE** **□** of the following:
 - blood
 - urine
- △** imaging test 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 organism

AND

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

□ Criterion 4: *(Last updated January 1, 2013)*

- 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 (<36°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:
 - △** invasive procedure
 - △** autopsy
 - biopsy during **ONE** **△** of the following:
 - △** invasive procedure
 - △** autopsy
 - abscess tissue obtained by **ONE** **○** of the following:
 - needle aspiration during **ONE** **△** of the following:
 - △** invasive procedure
 - △** autopsy
 - biopsy during **ONE** **△** of the following:
 - △** invasive procedure
 - △** autopsy
 - △** positive laboratory test on **ONE** **□** of the following:
 - blood
 - urine
 - △** image test 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 organism
- AND**
- If diagnosis is made antemortem, physician institutes appropriate antimicrobial therapy

REPORTING INSTRUCTIONS: *(Last updated January 1, 2014)*

- If meningitis (MEN) and a brain abscess (IC) are present together after operation, report as SSI-IC. Similarly, if meningitis and spinal abscess (SA) are present together after an operation, report as SSI-SA.



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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 January 1, 2013)*

- ☐ 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:

- ☐ **ALL** ☐ of the following found in the CSF:

- ☐ increased white cells

- ☐ elevated protein

- ☐ decreased glucose

- ☐ organisms seen on Gram's stain of CSF

- ☐ organisms cultured from blood

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

- ☐ CSF

- ☐ blood

- ☐ urine

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

- ☐ diagnostic single antibody titer (IgM) for pathogen

- ☐ 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 January 1, 2013)

- 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:

- △** **ALL** **□** of the following found in CSF:

- increased white cells
- elevated protein
- decreased glucose

- △** organisms seen on Gram's stain of CSF

- △** organisms cultured from blood

- △** positive laboratory test of **ONE** **□** of the following:

- CSF
- blood
- urine

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

- diagnostic single antibody titer (IgM) for pathogen
- 4-fold increase in paired sera (IgG) for pathogen

AND

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

REPORTING INSTRUCTIONS: (Last updated January 1, 2014)

- Report meningitis in the newborn as healthcare-associated *unless* there is compelling evidence indicating the meningitis was acquired transplacentally (i.e., unless it was apparent on the day of birth or the next day).
- Report CSF shunt infection as SSI-MEN if it occurs within 90 days of placement; if later or after manipulation/access of the shunt, it is considered CNS-MEN and not reportable under this module.
- Report meningoencephalitis as MEN.
- If meningitis (MEN) and a brain abscess (IC) are present together after operation, report as SSI-IC. Similarly, if meningitis and spinal abscess (SA) are present together after an operation, report as SSI-SA.

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 January 1, 2013)

- Patient has an abscess in **ONE** ☐ of the following spinal spaces:
 - ☐ epidural space seen during **ONE** ☐ of the following:
 - ☐ invasive procedure
 - ☐ an autopsy
 - ☐ subdural space seen during **ONE** ☐ of the following:
 - ☐ invasive procedure
 - ☐ an autopsy
 - ☐ evidence of an abscess seen during 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)



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- △ back pain*
- △ focal tenderness*
- △ radiculitis*
- △ paraparesis*
- △ paraplegia*

AND

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

- △ organisms cultured from blood
- △ imaging test 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 January 1, 2014)*

- If meningitis (MEN) and a brain abscess (IC) are present together after operation, report as SSI-IC. Similarly, if meningitis and spinal abscess (SA) are present together after an operation, report as SSI-SA.