

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

(Revised January 1, 2018)

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

□ **Criterion 1:** (Revised January 1, 2018)

- Patient has organism(s) identified from **ONE** △ of the following:
  - △ brain tissue<sup>#</sup>
  - △ dura<sup>#</sup>

□ **Criterion 2:** (Revised January 1, 2018)

- Patient has **ONE** △ of the following:
  - △ abscess seen during **ONE** ◇ of the following:
    - ◇ gross anatomic exam
    - ◇ histopathologic exam
  - △ evidence of intracranial infection on **ONE** ◇ of the following:
    - ◇ gross anatomic exam
    - ◇ histopathologic exam

□ **Criterion 3:** (Revised January 1, 2018)

- Patient has at least **TWO** △ of the following signs or symptoms:
  - △ headache\*
  - △ dizziness\*
  - △ fever (>38.0°C)
  - △ Localizing neurologic signs\*
  - △ changing level of consciousness\*
  - △ confusion\*

**AND**

- Patient has at least **ONE** △ of the following:
  - △ organism(s) seen on microscopic examination of **ONE** ◇ of the following:
    - ◇ brain tissue obtained during **ONE** + of the following:
      - + needle aspiration
      - + invasive procedure
      - + autopsy

**CENTRAL NERVOUS SYSTEM (CNS)**

◇ abscess tissue obtained by **ONE +** of the following:

- + needle aspiration
- + invasive procedure
- + autopsy

△ imaging test evidence suggestive of infection (for example 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

□ **Criterion 4: (Revised January 1, 2018)**

○ Patient ≤1 year of age has at least **TWO** △ of the following signs or symptoms:

- △ fever (>38.0°C)
- △ hypothermia (<36.0°C)
- △ apnea\*
- △ bradycardia\*
- △ localizing neurologic signs\*
- △ changing level of consciousness\* (for example, irritability, poor feeding, lethargy)

**AND**

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

△ organism(s) seen on microscopic examination of **ONE** ◇ of the following:

◇ brain tissue obtained during **ONE +** of the following:

- + needle aspiration
- + invasive procedure
- + autopsy

◇ abscess tissue obtained by **ONE +** of the following:

- + needle aspiration
- + invasive procedure
- + autopsy

△ imaging test evidence suggestive of infection (for example ultrasound, CT scan, MRI, radionuclide brain scan, or arteriogram)^



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△ choose **ONE** ◇ of the following:

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

\* with no other recognized cause

*#by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST)).*

*^which if equivocal is supported by clinical correlation (specifically, physician documentation or antimicrobial treatment for intracranial infection).*

**REPORTING INSTRUCTIONS: (Revised January 1, 2018)**

- Report as MEN if meningitis (MEN) and encephalitis (IC) are present together.
- Report as IC if meningitis (MEN) and a brain abscess (IC) are present together after operation.
- Report as SA if meningitis (MEN) and spinal abscess (SA) are present together.

## CENTRAL NERVOUS SYSTEM (CNS)

### MEN – Meningitis or Ventriculitis

(Revised January 1, 2018)

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

□ **Criterion 1:** (Revised January 1, 2018)

- Patient has organism(s) identified from cerebrospinal fluid (CSF)<sup>#</sup>

□ **Criterion 2:** (Revised January 1, 2018)

Patient has at least **TWO** △ of the following signs or symptoms:

*& this first element may not be used to meet the two required elements;*

- △ fever (>38.0°C) or headache<sup>&</sup>
- △ meningeal sign(s)\*
- △ cranial nerve sign(s)\*

**AND**

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

△ **ALL** ◇ of the following found in the CSF (per reporting laboratory's reference range):

- ◇ increased white cells
- ◇ elevated protein
- ◇ decreased glucose
- △ organism(s) seen on Gram stain of CSF
- △ organism(s) identified from blood<sup>#</sup>
- △ choose **ANY** ◇ of the following:
  - ◇ diagnostic single antibody titer (IgM) for organism
  - ◇ 4-fold increase in paired sera (IgG) for organism

□ **Criterion 3:** (Revised January 1, 2018)

- Patient ≤1 year of age has at least **TWO** △ of the following elements:

*& this element may not be used to meet the two required elements;*

- △ fever (>38.0°C); hypothermia (<36.0°C); apnea\*; bradycardia\*; or irritability\*<sup>&</sup>
- △ meningeal signs\*
- △ cranial nerve signs\*

**AND**

**CENTRAL NERVOUS SYSTEM (CNS)**

- Patient has at least **ONE** **△** of the following:
  - △ ALL** **◇** of the following found in CSF (per reporting laboratory's reference range):
    - ◇** increased white cells
    - ◇** elevated protein
    - ◇** decreased glucose
  - △** organism(s) seen on Gram stain of CSF
  - △** organism(s) identified from blood<sup>#</sup>
  - △** choose **ONE** **◇** of the following:
    - ◇** diagnostic single antibody titer (IgM) for organism
    - ◇** 4-fold increase in paired sera (IgG) for organism

*\*with no other recognized cause*

*<sup>#</sup>by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST)).*

**REPORTING INSTRUCTIONS:** (Revised January 1, 2018)

- Report CSF shunt infection as SSI-MEN if it occurs within 90 days of placement; if later or after manipulation/access, it is considered CNS-MEN but is not reportable as an SSI.
- Report MEN if meningitis (MEN) and encephalitis (IC) are present together.
- Report IC if meningitis (MEN) and brain abscess (IC) are present together after an operation.
- Report SA if meningitis (MEN) and spinal abscess (SA) are present together.

**CENTRAL NERVOUS SYSTEM (CNS)****SA – Spinal Abscess***(Revised January 1, 2018)*

**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:** *(Revised January 1, 2018)*

- Patient has organism(s) identified from abscess in **ONE** ☐ of the following:
  - ☐ spinal epidural space<sup>#</sup>
  - ☐ subdural space<sup>#</sup>

☐ **Criterion 2:** *(Revised January 1, 2018)*

- Patient has an abscess in **ONE** ☐ of the following:
  - ☐ spinal epidural space seen during **ONE** ☐ of the following:
    - ☐ gross anatomic exam
    - ☐ histopathologic exam
  - ☐ subdural space seen during **ONE** ☐ of the following:
    - ☐ gross anatomic exam
    - ☐ histopathologic exam

☐ **Criterion 3:** *(Revised January 1, 2018)*

- Patient has at least **ONE** ☐ of the following localized signs or symptoms:
  - ☐ fever (>38.0°C)
  - ☐ back pain\* or tenderness\*
  - ☐ radiculitis\*
  - ☐ paraparesis\*
  - ☐ paraplegia\*

**AND**

- Patient has at least **ONE** ☐ of the following:
  - ☐ organism(s) identified from blood<sup>#</sup> and imaging test evidence of spinal abscess<sup>^</sup>
  - ☐ imaging test evidence of a spinal abscess (for example myelography, ultrasound, CT scan, MRI, or other scans [gallium, technetium, etc.])<sup>^</sup>



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**CENTRAL NERVOUS SYSTEM (CNS)**

*# by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST)).*

*^which if equivocal is supported by clinical correlation (specifically, physician documentation of antimicrobial treatment for spinal abscess)*

*\*with no other recognized cause*

**REPORTING INSTRUCTIONS:** *(Revised January 1, 2018)*

- Report as IC if meningitis (MEN) and a brain abscess (IC) are present together after an operation.
- Report as SA if meningitis (MEN) and spinal abscess (SA) are present together.