

## CENTRAL NERVOUS SYSTEM (CNS)

### IC – Intracranial Infection

#### (Brain Abscess, Subdural or Epidural Infection, Encephalitis)

(Revised January 1, 2017)

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

**☐ Criterion 1:** (Revised January 1, 2017)

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

**☐ Criterion 2:** (Revised January 1, 2017)

- 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, 2017)

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

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☐ abscess tissue obtained by **ONE** ☐ of the following:

- ☐ needle aspiration
- ☐ invasive procedure
- ☐ autopsy

☐ imaging test evidence suggestive of infection (e.g. 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, 2017)*

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

*(\* with no other recognized cause)*

- ☐ fever (>38.0°C)
- ☐ hypothermia (<36.0°C)
- ☐ apnea\*
- ☐ bradycardia\*
- ☐ localizing neurologic signs\*
- ☐ changing level of consciousness (e.g., 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 (e.g. ultrasound, CT scan, MRI, radionuclide brain scan, or arteriogram)^

**CENTRAL NERVOUS SYSTEM (CNS)**

△ choose **ONE** □ of the following:

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

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

<sup>^</sup>which if equivocal is supported by clinical correlation (i.e., physician documentation or antimicrobial treatment for intracranial infection.

**REPORTING INSTRUCTIONS:** *(Revised January 1, 2017)*

- 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, 2017)

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

☐ **Criterion 1:** (Revised January 1, 2017)

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

☐ **Criterion 2:** (Revised January 1, 2017)

- Patient has at least **TWO** ☐ of the following signs or symptoms: (& *this first element may not be used to meet the two required elements; \* with no other recognized cause*)

☐ fever (>38.0°C) or headache &

☐ 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 **ONE** ☐ of the following:

☐ diagnostic single antibody titer (IgM) for organism

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

☐ **Criterion 3:** (Revised January 1, 2017)

- 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; \* with no other recognized cause*)

☐ 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

**REPORTING INSTRUCTIONS:** *(Revised January 1, 2017)*

- 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, 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.

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

## CENTRAL NERVOUS SYSTEM (CNS)

### SA – Spinal Abscess

(Revised January 1, 2017)

**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, 2017)

- 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, 2017)

- 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, 2017)

- Patient has at least **ONE** ☐ of the following localized signs or symptoms: (\* *with no other recognized cause*)
  - ☐ 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 (e.g. myelography, ultrasound, CT scan, MRI, or other scans [gallium, technetium, etc.]<sup>^</sup>)

## CENTRAL NERVOUS SYSTEM (CNS)

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

<sup>^</sup> which if equivocal is supported by clinical correlation (i.e., physician documentation of antimicrobial treatment for spinal abscess.

### **REPORTING INSTRUCTIONS:** *(Revised January 1, 2017)*

- 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.