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

(Revised January 1, 2016)

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

☐ **Criterion 1:** ***(Revised January 1, 2016)***

- Patient has organisms identified from **ONE** Δ of the following:
  - Δ brain tissue#
  - Δ dura#

☐ **Criterion 2:** ***(Revised January 1, 2016)***

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

☐ **Criterion 3:** ***(Revised January 1, 2016)***

- Patient has at least **TWO** Δ of the following signs or symptoms: ***(* with no other recognized cause)***
  - Δ headache*
  - Δ dizziness*
  - Δ fever (>38.0˚C)
  - Δ localizing neurologic signs*
  - Δ changing level of consciousness*
  - Δ confusion*

AND

- Patient has at least **ONE** Δ of the following:
  - Δ organisms 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
- Δ imaging test evidence suggestive of infection (e.g. ultrasound, CT scan, MRI, radionuclide brain scan, or arteriogram)^
- Δ Choose **ONE** ☐ of the following:
  - ☐ diagnostic single antibody titer (IgM)
  - ☐ 4-fold increase in paired sera (IgG) for organism

☐ **Criterion 4:** ***(Revised January 1, 2016)***

- ○ Patient ≤1 year of age has at least **TWO** Δ of the following signs or symptoms:
  (* with no other recognized cause)
  - Δ fever (>38.0˚C)
  - Δ hypothermia (<36.0˚C)
  - Δ apnea*
  - Δ bradycardia*
  - Δ localizing neurologic signs*
  - Δ changing level of consciousness (e.g., irritability, poor feeding, lethargy)*

AND

- ○ Patient has at least **ONE** Δ of the following:
  - Δ organisms 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

Δ image test evidence suggestive of infection (e.g. ultrasound, CT scan, MRI, radionuclide brain scan, or arteriogram)^

Δ choose **ONE** ☐ of the following:

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

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

REPORTING INSTRUCTIONS: ***(Revised January 1, 2016)***

- 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 and spinal abscess (SA) are present together after an operation.

MEN – Meningitis or Ventriculitis

(Revised January 1, 2016)

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

☐ **Criterion 1:** ***(Revised January 1, 2016)***

- Patient has organisms identified from cerebrospinal fluid (CSF)#

☐ **Criterion 2:** ***(Revised January 1, 2016)***

- Patient has at least **TWO** Δ of the following signs or symptoms: ***(& this first element may not be used to meet the two required elements; * with no other recognized cause)***
  - Δ fever (>38.0˚C) or headache &
  - Δ meningeal sign(s)*
  - Δ cranial nerve sign(s)*

AND

- Patient has at least **ONE** Δ of the following:
  - Δ **ALL** ☐ of the following found in the CSF (per reporting laboratory's reference range):
    - ☐ increased white cells
    - ☐ elevated protein
    - ☐ decreased glucose
  - Δ organisms seen on Gram stain of CSF
  - Δ organisms identified from blood#
  - Δ 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, 2016)***

- Patient ≤1 year of age has at least **TWO** Δ of the following elements: ***(& this element may not be used to meet the two required elements; * with no other recognized cause)***
  - Δ fever (>38.0˚C); hypothermia (<36.0˚C); apnea; bradycardia; or irritability&
  - Δ meningeal signs*
  - Δ cranial nerve signs*

AND

- Patient has at least **ONE** Δ of the following:
  - Δ **ALL** ☐ of the following found in CSF (per reporting laboratory's reference range):
    - ☐ increased white cells
    - ☐ elevated protein
    - ☐ decreased glucose
  - Δ organisms seen on Gram stain of CSF
  - Δ organisms identified from blood[#]
  - Δ 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, 2016)***

- 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 and is not reportable under this module.

- 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 after an operation.

[#]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).

SA – Spinal Abscess without Meningitis

(Revised January 1, 2016)

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, 2016)***

- Patient has organisms identified from abscess in **ONE** Δ of the following:
  - Δ spinal epidural space#
  - Δ subdural space#

☐ **Criterion 2:** ***(Revised January 1, 2016)***

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

☐ **Criterion 3:** ***(Revised January 1, 2016)***

- Patient has at least **ONE** Δ of the following localized signs or symptoms: ***(* with no other recognized cause)***
  - Δ fever (>38.0˚C)
  - Δ back pain* or tenderness*
  - Δ radiculitis*
  - Δ paraparesis*
  - Δ paraplegia*

AND

- Patient has at least **ONE** Δ of the following:
  - Δ organisms identified from blood# in a patient with imaging test evidence of spinal abscess
  - Δ imaging test evidence of a spinal abscess (e.g. myelography, ultrasound, CT scan, MRI, or other scans [gallium, technetium, etc.])

[#]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).

REPORTING INSTRUCTIONS: ***(Revised January 1, 2016)***

- 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 after an operation.