### 2021 NHSN Central Nervous System Infection (CNS) Checklist

**IC-Intracranial infection (brain abscess, subdural or epidural infection, encephalitis)**

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<th>Element</th>
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Intracranial infection must meet at least one of the following criteria:

1. Patient has organism(s) identified from brain tissue or dura 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).

2. Patient has an abscess or evidence of intracranial infection on gross anatomic or histopathologic exam.

3. Patient has at least two of the following localized signs or symptoms:
   - Headache*
   - Dizziness*
   - Fever (>38.0°C)
   - Localizing neurologic signs*
   - Changing level of consciousness*
   - Confusion*

   **AND** at least one of the following:
   a. Organism(s) seen on microscopic examination of brain or abscess tissue obtained by needle aspiration or during an invasive procedure or autopsy.
   b. Imaging test evidence suggestive of infection (for example, ultrasound, CT scan MRI, radionuclide brain scan, or arteriogram), which if equivocal is supported by clinical correlation, specifically, physician documentation of antimicrobial treatment for intracranial infection.
   c. Diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for organism.

4. Patient ≤1 year of age has at least two of the following localized 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** at least one of the following:
   a. Organism(s) seen on microscopic examination of brain or abscess tissue obtained by needle aspiration or during an invasive procedure or autopsy.
   b. Imaging test evidence suggestive of infection, (for example, ultrasound, CT scan, MRI, radionuclide brain scan, or arteriogram), which if equivocal is supported by clinical correlation, specifically, physician documentation of antimicrobial treatment for intracranial infection.
| c. Diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for organism. | ☐ |

*With no other recognized cause

**Reporting instructions:**
- 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/infection (SA) are present together.
Meningitis or ventriculitis must meet at least one of the following criteria:

1. Patient has organism(s) identified from cerebrospinal fluid (CSF) 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).

   **Element Met**

2. Patient has at least two of the following:

   i. Fever (>38.0°C)
   Headache
   (Note: Elements of “i“ alone may not be used to meet the two required elements)

   ii. Meningeal sign(s)*

   iii. Cranial nerve sign(s)*

   **AND** at least one of the following:

   a. Increased white cells, elevated protein, and decreased glucose in CSF (per reporting laboratory’s reference range).

   b. Organism(s) seen on Gram stain of CSF.

   c. Organism(s) identified from blood 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).

   d. Diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for organism.

3. Patient ≤1 year of age has at least two of the following:

   i. Fever (>38.0°C)
   Hypothermia (<36.0°C)
   Apnea*
   Bradycardia*
   Irritability*
   (Note: Elements of “i“ alone may not be used to meet the required two elements).

   ii. Meningeal signs*

   iii. Cranial nerve signs*

   **AND** at least one of the following:

   a. Increased white cells, elevated protein, and decreased glucose in CSF (per reporting laboratory’s reference range).

   b. Organism(s) seen on Gram stain of CSF.

   c. Organism(s) identified from blood 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).

   d. Diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for organism.

*With no other recognized cause

**Reporting instructions:**

- 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 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/infection (SA) are present together.
**CNS - Central Nervous System Infection**

**SA-Spinal abscess/infection (spinal abscess, spinal subdural or epidural infection)**

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<td>Spinal abscess/infection must meet at least <strong>one</strong> of the following criteria:</td>
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<td>1. Patient has organism(s) identified from abscess or from purulent material found in the spinal epidural or subdural space 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).</td>
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<td>2. Patient has an abscess or other evidence of spinal infection on gross anatomic or histopathologic exam.</td>
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<td>3. Patient has at least <strong>one</strong> of the following localized signs or symptoms:</td>
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<tr>
<td>• Fever (&gt;38.0°C)</td>
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<td>• Back pain* or tenderness*</td>
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<td>• Radiculitis*</td>
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<td>• Paraparesis*</td>
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<td>• Paraplegia*</td>
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<td><strong>AND</strong> at least <strong>one</strong> of the following:</td>
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<td>a. Organism(s) identified from blood 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) <strong>AND</strong> Imaging test evidence suggestive of spinal abscess/infection (for example, myelography, ultrasound, CT scan, MRI, or other scans [gallium, technetium, etc.]), which if equivocal is supported by clinical correlation, specifically, physician documentation of antimicrobial treatment for spinal abscess/infection.</td>
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<td>b. Imaging test evidence suggestive of a spinal abscess/infection (for example, myelography, ultrasound, CT scan, MRI, or other scans [gallium, technetium, etc.]), which if equivocal is supported by clinical correlation, specifically, physician documentation of antimicrobial treatment for spinal abscess/infection.</td>
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*With no other recognized cause

**Reporting instruction:**
- Report as SA if meningitis (MEN) and spinal abscess/infection (SA) are present together after operation.