Coma Definition

Spectrum of Altered Level of Consciousness & Responsiveness

- Severe: Coma
- Moderate: Obtundation / stupor
- Mild: Lethargy / somnolence

Clinical circumstances

- Trauma
- CVA / brain hemorrhage
- End-stage dementia / degenerative brain diseases
- Severe metabolic/physiologic disturbances (e.g., anoxia, hypothermia, diabetes, severe electrolyte imbalance, many others)
- Organ failure (e.g. hepatic or uremic coma)
- Encephalitis/meningitis
- Medications, drugs and toxins

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Glasgow Coma Scale (GCS)

Objective measure of consciousness and responsiveness

Prognostic significance in trauma only

Valid objective measure in all circumstances

Total score 3 to 15
   – Eye opening: 1 to 4
   – Verbal response: 1 to 5
   – Motor response: 1 to 6

Diagnostic correlation:
   – Total score 3-8: Coma
   – Total score 9-12: Obtundation/stupor
   – Total score 13-14: Lethargy / somnolence
# Glasgow Coma Scale (GCS)

<table>
<thead>
<tr>
<th>Eye Opening</th>
<th>Spontaneous</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Verbal Command</td>
<td>3</td>
</tr>
<tr>
<td>To pain</td>
<td>2 MCC</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1 MCC</td>
<td></td>
</tr>
</tbody>
</table>

| Verbal | Oriented | 5 |
|        | Confused but answers questions | 4 |
|        | Inappropriate, words discernible | 3 |
|        | Incomprehensible speech | 2 MCC |
|        | None | 1 MCC |

| Motor | Obey command | 6 |
|       | Purposeful movement to pain | 5 |
|       | Withdraws (reflexive) from pain | 4 |
|       | Abnormal (spastic) flexion | 3 |
|       | Extensor (rigid) response | 2 MCC |
|       | None | 1 MCC |
Coding Guidelines

Documentation
  – Coma
  – Unconsciousness
  – Persistent vegetative state

GCS

Excludes 1 Note

Official Coding Guidelines

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Coding Guidelines

Coma (MCC) requires diagnosis by provider
  - Unconsciousness coded as coma
    • Must be prolonged
    • Not transient like seizure or concussion
  - Persistent vegetative state coded as a CC: query for coma

GCS
  - No requirement for documentation of “coma”
    • But need something that makes the GCS pertinent (e.g., altered mental status)
  - Code from scoring sheet by any healthcare professional
    • Examples: nurse, pre-hospital EMS
  - Use lowest score obtained
  - Do not code total score if components coded
  - Lowest 2 scores of each component are MCCs
Coding Guidelines

Excludes 1 note for R40-R46 which includes coma and GCS when they are **part of a pattern** of a mental disorder (F01-F99).

- Psych conditions, dementia, intellectual disability, as well as alcohol and drug use, abuse, dependence, intoxication, etc.
- Not excluded in these conditions when due to something else
- Not excluded from poisoning, adverse effect or toxic effect
- Not excluded from conditions other than F01-F99 such as severe metabolic and physiologic disturbances or infections like encephalitis/meningitis
Section I.C.18.e: “The coma scale codes (R40.2-) can be used in conjunction with traumatic brain injury codes, acute cerebrovascular disease or sequelae of cerebrovascular disease codes. These codes are primarily for use by trauma registries, but they may be used in any setting where this information is collected. The coma scale codes should be sequenced after the diagnosis code(s)”

Does not prohibit use in other situations such as:

– Drug overdose
– Severe electrolyte imbalance
– Encephalitis

Remember Excludes 1 note for mental disorders
Hepatic Encephalopathy

ICD-10 assigns to hepatic failure with or without coma 5 pairs of codes:

- NOS
- Alcoholic
- Due to drugs
- Acute/subacute
- Chronic

With coma is MCC

- Appears to require a diagnosis of coma or unconsciousness?
- Other significant manifestations seem to be excluded from “with coma”?
  - Agitation, disorientation, confusion, asterixis

ICD-10 changes to include hepatic encephalopathy without coma are being considered

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Physician Education

Encourage awareness

Stress importance of GCS

Establish organizational process for recording GCS in record of all patients with altered level of consciousness

ACDIS commercial educational tool:

**CDI for the Clinician™**