

COVID-19 Neurocritical Care

Wide spectrum of
neurological complications

Similar treatment
strategies as those for
non-COVID-19 patients



Associated Clinical Findings

- CNS*: Encephalitis, postviral encephalopathy, acute demyelinating encephalomyelitis, stroke (ischemic and hemorrhagic), seizures, status epilepticus
- PNS^: Myositis, critical illness myopathy/neuropathy



Phases

- Viremic phase: Neuroinvasive potential
- Inflammatory phase: Immune dysregulation
- Coagulopathy and endotheliopathy
- Treatment-related adverse effects



Diagnostic Considerations

- High clinical suspicion
- Diagnostic challenges due to sedation, paralysis, limitations in imaging, continuous EEG capabilities
- Electrodiagnostic studies
- Cerebrospinal fluid sampling



Outcomes

- Short-term outcomes determined by severity of COVID-19 + neurological manifestation
- Long-term outcomes: TBD
- Post-intensive care syndrome (PICS), fatigue, "brain fog"

*CNS: central nervous system, ^PNS: peripheral nervous system