

Children's Mercy Kansas City

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Care Process Models

Quality Improvement and Clinical Safety

7-2021

Cerebral Venous Sinus Thrombosis (CVST)

Children's Mercy Kansas City

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These guidelines do not establish a standard of care to be followed in every case. It is recognized that each case is different and those individuals involved in providing health care are expected to use their judgment in determining what is in the best interests of the patient based on the circumstances existing at the time. It is impossible to anticipate all possible situations that may exist and to prepare guidelines for each. Accordingly, these guidelines should guide care with the understanding that departures from them may be required at times.

Concern for Non-Traumatic Cerebral Venous Sinus Thrombosis (CVST) (headache, somnolence, papilledema)

Finalized Algorithm: 7.16.21
Owner: M. Villanueva, DO, Fellow, PGY-7
Mentor: M. Sharma MD, MPH, FAAP



Order neuroimaging MRI MRV

Neuroimaging confirms CVST

Consult Neurology and Hematology

Severe conditions:

- comatose
- rapidly progressing symptoms
- extensive clot burden
- large secondary hemorrhage
- cerebral edema
- worsening clinical picture despite anticoagulation

Is pt's condition severe?

Yes → Consider transfer to KU for endovascular treatment

No

Are/Is the:

- symptoms stable > 72 hours,
- clot small / nonocclusive,
- there absence of hemorrhage,
- neurologic exam normal?

Yes to all → May consider admit to Neuro or Heme/Onc Service

No

Contact Hematology for anticoagulation management

Admit to PICU

Initiate anticoagulation with bivalirudin if no contraindications (intracranial hemorrhage secondary to CVST not a contraindication)

Additional treatment considerations:

- Pain control (avoid NSAIDS)
- Evaluate for iron deficiency anemia
- Consider hypercoag workup
- Ophthalmology consult
- Diamox for headache vision changes
- Fluids as needed

Is pt's condition stable/improving?

Yes → Continue anticoagulation, may change to home/long term anticoagulation with direction of the hematology team

No

Huddle between Neurology, Hematology and ICU

Discussion points for huddle:

- Does neurosurgery need to be involved?
- Does pt. need to be transferred to KU for endovascular treatment?
- Does anticoagulation therapy need to be altered?
- Does imaging need to be repeated?