Neurological Symptoms in Patients with Sickle Cell Disease

Developed by the NC Division of Public Health; the comprehensive sickle cell centers at Carolinas Health Care, Duke University, East Carolina University, University of North Carolina at Chapel Hill, Mission, and Wake Forest University; and primary care physicians from across North Carolina. Adapted from the 2014 NIHBI guidelines for Evidence-Based Management of Sickle Cell Disease.

Patient presents with or reports neurological symptoms

- Cognitive decline, worsening school or work performance. Risk of prior silent infarcts.
  - Full neurological history and exam.
  - Consider referral to neurology, neuropsych testing, and sickle cell provider.
  - Consider need for learning evaluation/Individualized Education Plan for children.

  - Evaluate as you would for general population, but consider referral to sickle cell provider for evaluation, if symptoms are severe or persist.

- Acute focal neurological deficits, change in mental status, weakness, slurred speech, severe headaches, seizures. Risk of acute stroke.
  - Immediate evaluation, stabilization, and treatment in an emergency facility, including a CT scan.
  - Exchange transfusion, not t-PA, treatment of choice for sickle cell patients with stroke.