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.

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.