Top Ten Things to Know
Telemedicine Quality and Outcomes in Stroke

1. Telestroke enables rural or underserved areas/hospitals to effectively treat patients with acute ischemic stroke with IV tPA (alteplase) on site, and identify and triage patients potentially eligible for endovascular treatment or for clinical trials of new or improved stroke therapies.

2. This scientific statement discusses quality improvement related to telestroke in the following areas: telestroke process measures, outcome measures and safety measures. Patient and provider satisfaction, technology quality, process of quality reporting, licensing, credentialing and reporting as well as training and documentation are also discussed.

3. The authors conducted a literature review to examine the current status of telestroke and associated quality measures. The science of quality monitoring and prior experience in quality measures for stroke is provided. Types of quality measures are also reviewed (structural, process and outcome).

4. Models of telestroke and the role of telestroke in stroke systems of care are reviewed including the distributed and hub-and-spoke models. Telestroke as a component of stroke systems of care is discussed.

5. Telestroke process measures and suggestions for measurement include the following: recording certain critical time points in the patient event experience, data on phone and audio-video encounters for AIS evaluations, and tracking transfers between facilities.

6. Telestroke outcome measures are discussed and include: patient outcomes, stroke diagnosis and mimics, IV tPA (alteplase) use, and safety measures (intracerebral hemorrhage and mortality).

7. Patient satisfaction is an important part of telestroke care and is an important part of telestroke quality efforts. The authors of this paper suggest that a standardized method of evaluating patient satisfaction be developed.

8. As a part of telestroke quality efforts suggestions for monitoring telestroke technology quality are discussed and processes for formal reporting of quality are highlighted in this scientific statement.

9. This scientific statement makes important suggestions and recommendations for improvement of telestroke practices overall.

10. The goal of telestroke at present is to achieve equivalence with in-person care, but there is an opportunity to go further and improve stroke care through the application of this technology.