In early 1998, Cleveland Clinic Health System established a goal to improve its stroke management program. Although intravenous tissue plasminogen activator (IV tPA) has revolutionized the management of acute stroke, with the ability to reduce disability in some patients, it is associated with significant bleeding risks and must be administered carefully. Cleveland Clinic Health System established a stroke quality improvement program designed to increase access to IV tPA, to improve physician compliance with national IV tPA treatment guidelines, and to reduce the associated rate of brain hemorrhage complications. The key to the success of the initiative was the system-wide multidisciplinary involvement among emergency medicine physicians, neurologists, neurosurgeons, neuroradiologists, internists, quality improvement coordinators, and emergency medical service personnel.

Achievements

- Reduced the frequency of brain hemorrhagic complications by more than half, from 13.4 percent to 6.4 percent; more than doubled the rate of IV tPA use, from 1.5 percent of all strokes to 3.9 percent of all strokes; and reduced protocol deviations by almost half, from 33 percent to 17 percent.
- Provided a new emphasis on multidisciplinary stroke management.
- Enhanced the care of all stroke patients through the use of standardized guidelines and algorithms.
- Improved professional education and public awareness.
- Reduced stroke complications, mortality and length of stay.
- Refined processes for measuring stroke outcomes and quality of care.
- Increased collaboration and collegiality among physicians across the Health System.
- Enhanced the level of support by the Health System's Quality Institute for system-wide performance measurement and improvement.