

Transforming hyperacute stroke care: The Manitoba experience

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Presentation Overview

- **Purpose/Objective:** Manitoba Hyperacute Stroke Care Initiative
- **Methodology/Approach:** Scope, project management, key elements
- **Findings/Results:** Deliverables, lessons learned
- **Conclusions/Implications/Recommendations:** Evaluation, future plans



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Background

- In Canada stroke is the leading cause of adult disability and the third leading cause of death
- 62,000 strokes occur in Canada each year – one stroke every nine minutes. 2000 strokes occur each year in Manitoba, - 5.5 strokes per day
- Canadian standard of care is to assess stroke victims within 4.5 hours of symptom onset to evaluate for thrombolytic therapy
- The vast geographic distances and intermittent rural population in Manitoba, makes access to stroke care challenging as most stroke neurologists are located in the larger urban centers



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Purpose/ Objective

- Currently, videoconferencing services are available throughout the province
- Urgent 24/7 telehealth services is in its early stages
- Research has demonstrated the value of telehealth in provide the hyperacute stroke patient a timely diagnosis, treatment and improved outcomes
- Telestroke offers increased access to best practice stroke care
- Manitoba has implemented such a service with promising results



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Methodology/ Approach

- In 2014, Manitoba became the fourth province to initiate Telestroke/ Hyperacute services
- Manitoba Telestroke/Hyperacute service was designed utilizing the “hub and spoke” model, a design adapted by a growing number of telestroke networks throughout Europe and North America
- Manitoba Telestroke service was designed as a 24/7 urgent on-call neurology consultation service



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Findings/Results

- Thompson, a city located in northern Manitoba, as an approximate population of 14,000 and is referred to as the “Hub of the North”
- The Thompson catchment area has the highest stroke rate in Manitoba

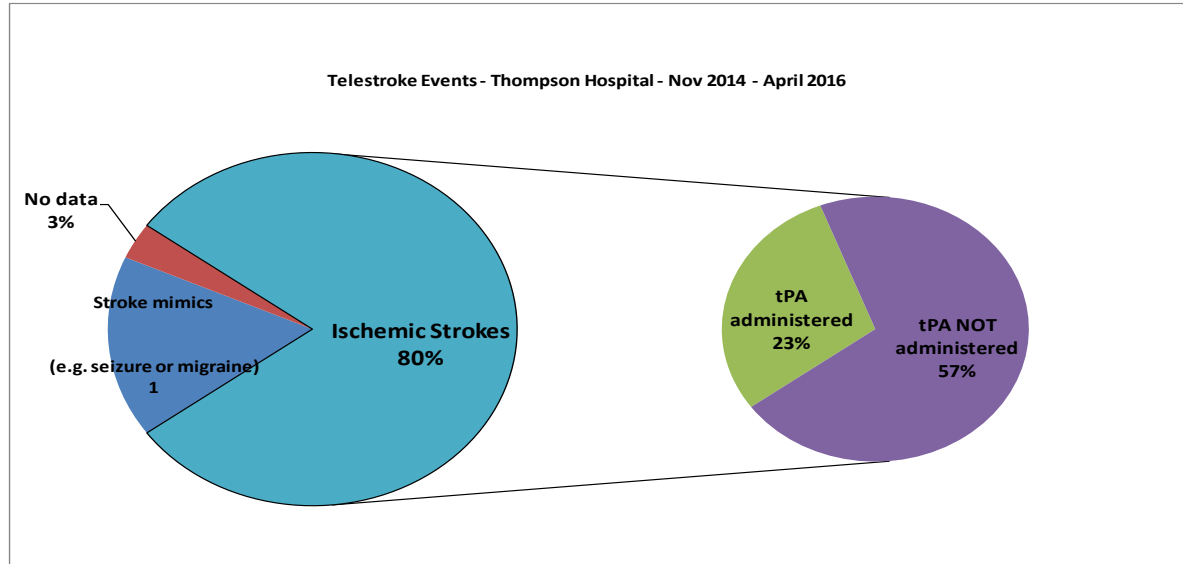
Findings/Results

- Thompson General Hospital Emergency Department went live as the first rural Manitoba site on November 18, 2014
- The first telestroke patient was seen within 48 hours of the program going live
- Since November 2014, 31 telestroke patients have been seen at the Thompson Emergency Department

Findings/Results

- 80 percent of the patients received a diagnosis of stroke and 30 percent of these received thrombolytic therapy
- This large collaborative team effort has resulted in the median door to needle time is 44 minutes at the Thompson General Hospital

Telestroke Events



Thompson General Hospital - Spoke



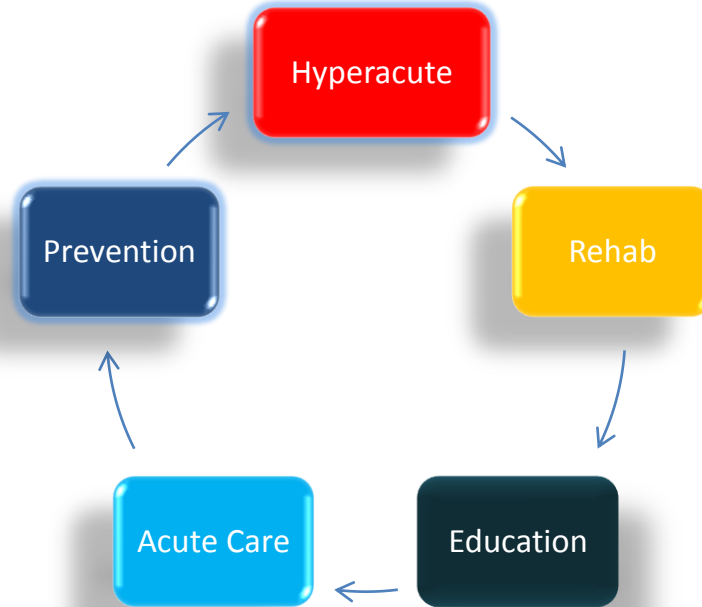
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Telestroke applications



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Moving forward with Telestroke

- A second site was implemented at The Pas, Manitoba in Spring 2015
- To date, The Pas has seen 7 telestroke patients with one patient receiving tPA treatment
- Dauphin is our third Telestroke-hyperacute site that went live on May 11, 2016 and seen its first telestroke patient 24 hours later
- Anticipated go-live date for Brandon is June 2016

Challenges/ Lessons Learned

- Vast provincial geography and distance
- Connectivity and technical issues can create delays in service delivery
- Staff turnover resulting in continuous training
- Deferrals in going live with new sites
- Maintaining competency and comfort level of users
- Tracking and documenting telestroke events has been challenging

Conclusions/Recommendations

- Expanded and improved access to patient stroke care in Thompson and surrounding area since the implementation of the emergency telestroke care
- Seven patients have received the thrombolytic therapy, that otherwise may not have had access to hyperacute stroke care

Conclusions/Recommendations

- The 31 patients seen to date have all benefited from stroke neurology assessment and management
- Continual review and evaluation is essential to commit to changing stroke best practices and technology advancements

Questions?

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