

Collaboration and Partnerships with Emergency Medical Services (EMS) to enhance the stroke system in Northwestern Ontario

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Background

- Paramedics and first responders play a key role in the critical first hours of stroke care.
- The emergency medical system teams are essential members that have a role in a well-functioning stroke system of care.
- Transportation by paramedics is safer and enables patients to be triaged to appropriate hospitals that provide stroke services without delays.
- In Northwestern Ontario (NWO), only 53% of all patients who seek stroke acute care arrive at the Emergency Department by ambulance with the Ontario provincial average being 66%.
- Public education should focus on recognition including FAST (Face, Arms, Speech, Time) acronym and response by calling EMS.
- NWO communities are spread across 460,000 square kilometers.

Purpose

NWO residents need to know the urgency of seeking immediate stroke care and understand that time lost is brain lost. The Northwestern Ontario Regional Stroke Network (NWORSN) needs to engage with EMS in formal stroke education activities and collaborate to support public awareness campaigns to enhance stroke care in NWO.

Objective


For the NWORSN and EMS to collaborate and partner through education and knowledge translation activities to ensure timely and seamless care of stroke patients to optimize recovery and improve outcomes in NWO.

Methods

4 educational initiatives were undertaken. Attendance was collected at each training session.

- EMS Advanced Stroke Education 1.5 hour training sessions.
- First Responder Stroke Education 2.0 hour team training sessions.
- Hyperacute Stroke Care: EMS Management of Acute Stroke Patients - Development of a 21 minute video based on EMS personnel and Stroke Neurologist interview was integrated into 4 EMS learning management systems.
 - Topics included: Hyperacute Stroke Care, Physical Assessments, TIA, Last Seen Normal, tPA and the Role of EMS.
- 4 EMS services participated in the FAST decals project in partnership with Heart and Stroke Foundation.

Stroke Education Training Sessions

Paramedic Training Attendance per Session (Total = 159) (16 Sessions held between March - May 2016) 

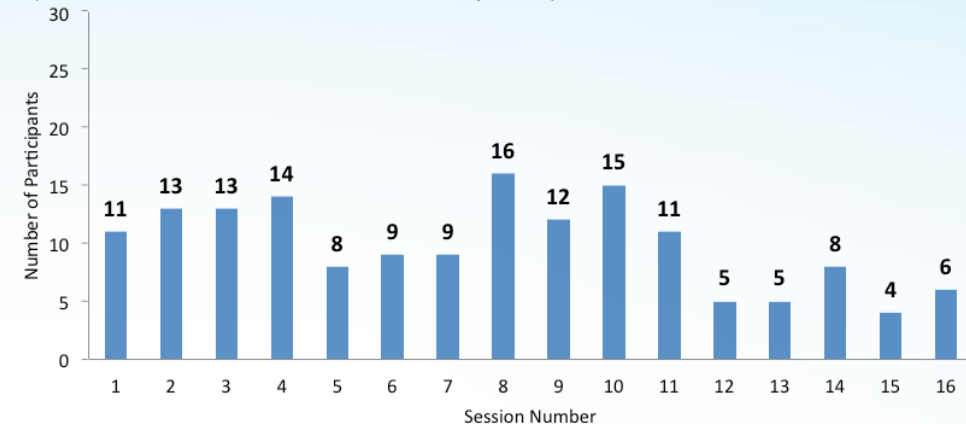



Figure 1: Paramedic Training

First Responder Training Attendance per Session (Total = 126) (7 sessions held between October 2017 - June 2018) 

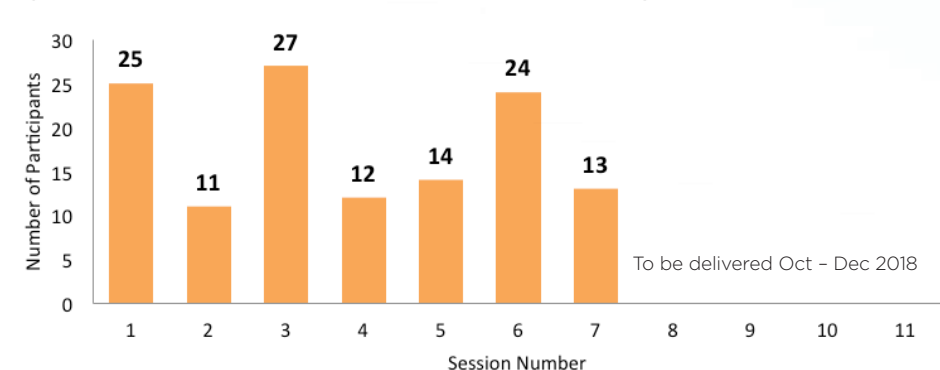


Figure 2: First Responders

Results

- Advanced Stroke Training and Education sessions were attended by 159 out of 170 paramedics, 94% training rate.
- Training and education for First Responders to increase ability to recognize stroke and provide rapid assessment and management were attended by 126 first responders in the city and district of Thunder Bay, ON.
- Hyperacute Stroke Care: EMS Management of Acute Stroke Patients - Video was provided to 367 paramedics for the opportunity to utilize in professional education.
- 77 ambulances in NWO received decals with the signs of stroke acronym FAST, 100% implementation rate.

Conclusions

The NWORSN has strong partnerships with EMS resulting in increased knowledge for paramedics and first responders. Continued collaboration is ongoing in public awareness and education campaigns to improve recognition and response to signs of stroke. Both partners are engaged in ongoing leadership roles and coordination of system optimization for stroke care in NWO.

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Picture 1: Hyperacute Stroke Care: EMS Management of Acute Stroke Patients Video

Picture 2: FAST Decals Project

Picture 3 & 4: FAST Decals Project

References:

•The Heart and Stroke Foundation 2015 Stroke Report - Access to Stroke Care: The Critical First Hours • Canadian Stroke Best Practice Recommendations for Acute Stroke Management: Prehospital, Emergency Department and Acute Inpatient Stroke Care, 6th Edition, Update 2018 • Ontario Stroke Report Card 2016/2017, North West Local Health Integration Network