

# Evolution of Spinal Protection in New Brunswick's Adult Trauma Patients

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NB Trauma Program  
Programme de  
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Sauver des vies grâce à un travail d'équipe exceptionnel et coordonné*

# Disclosure

- I have no relationships with commercial interests to disclose
- I am employed within the New Brunswick healthcare system, the jurisdiction in which this work was conducted

# Background

- The NB Trauma Program: what is it?
- Mandate to provide provincial leadership and coordination of clinical care for trauma patients
- Methodology of developing consensus statements to guide clinical priority areas.
- Strong clinical interest to reduce the use of long spine boards, particularly during interfacility trauma transfer

# Methods

- Consensus statement included stakeholders from:
  - Orthopedic Surgery
  - Neurosurgery
  - Emergency Medicine
  - ED nursing
  - Paramedic educators and leaders
  - NB Trauma Program leadership
- Resulting document (available online at [NBTrauma.ca](http://NBTrauma.ca)) described sharply reduced use of long spine boards in both prehospital and interfacility transfer applications

# Methods

- Implementation plan:
  - Acquisition and installation of scoop stretchers for all ANB vehicles and all Emergency Departments
  - Education for all 1000+ Ambulance New Brunswick Paramedics
  - Education for all of New Brunswick's Emergency Departments and Diagnostic Imaging areas
  - Development of supporting ANB procedures
  - Planned provincial implementation date
  - Supporting communications within ANB and with all of NB's designated trauma centres
  - Development of evaluation criteria pre-implementation
- Provincial implementation December 1, 2015 – long spine board reduced to an extrication tool only unless exceptional circumstances direct otherwise.

# Results

## Long Spine Board Use by Paramedics in NB

January - June (2014, 2015, 2016)

January to June Reporting Period	Count of PCRs with C-Collars Applied	Proportion with Long Spine Board Applied
2014	1,300	95.3%
2015	1,189	93.7%
2016	977	4.2%

# Results

## Survey:

- 147 electronic survey responses
  - Paramedics, neurosurgeons and ED physicians, nurses and managers
  - Quantitative and qualitative
- Universally strong support for the change in practice.
- Up to 34% of some respondent groups suggested that they have a lower perception of patient risk when presented with a patient in a cervical collar but not on a long spine board, head blocks and straps.

# Results

- NB Trauma Registry captures comprehensive data on all trauma patients admitted to hospital with an arrival CTAS score of 1, 2 or 3 at all Level I, II and III designated trauma centres in NB:
  - We detected no occurrences of new or aggravated neurological symptoms post-implementation
  - We did note fewer than five occurrences of femur fractures that were not immobilized on arrival at hospital.



# Conclusion

- Paramedics, Emergency Department and Diagnostic Imaging staff can be effectively guided to reduce long spine board use in a planned, supported way
- Absence of the long spine board may reduce the perception of risk for individual patients in some provider groups
- Absence of the long spine board may require reinforcement of the need to splint lower extremity fractures

# Conclusion (part 2)

- Structure first – then processes
- Consensus statements take time, but are worth it
- Broad evaluation criteria are important for any significant QI project

# Thank You

## Questions Welcome!

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