NB TRAUMA PROGRAM UPDATE
NOVEMBER 7, 2012
A “Rapid Fire” Update

• A chance to hear a brief update on some of the program’s current activities

• Not an exhaustive list for sure! We’re picked those areas from our current operations that may have the most direct applicability to research
Agenda

• Each speaker will have a few minutes to share a specific area that they are responsible for, followed by 5 minutes for questions.

• Our Rapid Fire Speakers:
  • Allison Chisholm
  • Ann Hogan
  • Shelley Woodford
  • Dr. Paul Goobie
New Brunswick Trauma Registry

PAST:

• Data collection in Collector for the National Trauma Registry at Saint John Regional Only.

• Minimal Data Set – Patients that are registered in Emergency Department.

• DAD information.
New Brunswick Trauma Registry

PRESENT:

• Data Collection in Collector for the National Trauma Registry at Saint John Regional and the Moncton Hospital.
• Minimal Data Set expanded to include sites with Trauma Nurses.
• Data from Ambulance NB
• DAD information
New Brunswick Trauma Registry

FUTURE:
• One single Trauma Registry that will include the entire Patient Continuum…..
New Brunswick Trauma Registry
Injury Prevention Subcommittee

Chair: Heather Oakley
NB Trauma Program: Ann Hogan

Responsible for advancing the interests of provincial injury prevention across New Brunswick
Injury Prevention Subcommittee Members

- Dr Denis Allard - Office of the Chief Medical Officer of Health (OCMHOH - Public Health)
- Sarah Black – Youth representative
- Kim Blinco - OCMHOH - Public Health
- Jean-Marc Dugas – Ambulance NB
- Alice Hébert – Vitalité Health Network
- Heather Gorman – Department of Public Safety
- Tracey Lovett – Health Canada – First Nations
- Sarah MacPherson – community member
- Steve Olmstead – Insurance Bureau of Canada
- Andy Rauska – Worksafe NB
- Deborah Van den Hoonoord – St Thomas University Senior Wellness
Parachute: National Injury Prevention

• Merger: SMARTRISK, Safe Communities Canada, Safe Kids Canada and ThinkFirst Canada
• Goal: One Voice that educates, inspires and mobilizes Canadians to prevent injuries.
Atlantic Collaborative for Injury Prevention (ACIP)

- Atlantic Network for Injury Prevention (ANIP) 2001-2008
- Representatives from NB (including NB Trauma), NS, PE and NL

**Goal**: To reduce the burden of injury in Atlantic Canada.

**Objective**: To work to link individuals and organizations working to prevent and reduce the impact of injuries in Atlantic Canada.
NB Trauma (as part of ACIP)

- National profile and presence
- Canadian Collaborative Centres for Injury Prevention and Control (CCCIPC)
NB Trauma (as part of ACIP) Reports

- Child and youth unintentional injury, Atlantic Canada, 10 years in review (2009)
- Alcohol & Injury in Atlantic Canada: Creating a Culture of Safer Consumption (2010)
- ACIP Social Determinants of Injury (2011)
- Caffeinated Alcoholic Beverages & Injury (2011)
Injury Hospitalizations

Source: National Trauma Registry Minimum Dataset
Injury Framework

• Released Oct 17, 2012
• Available
NB Trauma Focus Areas

- Children
- Youth
- Seniors
Priority: Children

- Prenatal needs survey
  - assisted with incorporating injury prevention into prenatal class curriculum
  - working on a safe crib poster
- Information kits for Public Health nurses doing 3.5 year old child assessments
Priority: Children

- Rogers PSAs – 1 minute Kids’ safety Minutes
  - Booster seats
  - Seat belts
  - Falls in the home
  - Drowning
  - Poisoning
Priority: Youth

• Active and Safe Initiative - *Brain Injury Prevention in Team Sports in Canada*

• Concussion: education, awareness, treatment (coaches, athletes, officials, parents, family physicians, Emergency physicians)
Priority: Youth

• Atlantic Canada average age first alcohol consumption 12.9 years (Canada 15.6 years)
• 30% report drinking alcohol before 12 years old
• Highly influenced by low price, exposure to advertising and outlet density
• ~40% of all MVC fatalities alcohol is a factor

P.A.R.T.Y
Prevent Alcohol & Risk Related Trauma to Youth
Senior Falls

Saint John Regional Hospital Emergency Department Visits: Falls Persons 65 years and Older

- Total ED Visits SJRH
- Admit
- Fx hip
- Other fx's
Priority: Senior Falls

Goals and objectives:

• Goal: reduce the pain and suffering and health care costs due to fall related injuries.

• Target: To reduce the number of fall related injuries by 20% by 2014
Priority: Senior Falls

Plan to focus on:
• Education
• Environmental Risks
• Socio-Economic Concerns – social determinants of health
• Social Marketing
Priority: Senior Falls

- Opportunity to share Horizon Health strategy re: falls in hospital
- 2011-12: 13,000 employees received falls prevention training
  - mandatory recertification annually.
  - tools, forms, policies, and practices standardized across HHN
Education Subcommittee

Chair – Erin Musgrave
NB Trauma Program – Shelley Woodford
Education Subcommittee

- Erin Musgrave - Chair
- Glenn Verheul
- Kim David
- Huguette Boudreau
- Troy Denton
- David Theriault
- Dr Hari Ondiveeran
- Dr Tushar Pishe
- Eric Beairsto
- Penny Coburn
- Dr Gaetan Gibbs
- Rita Berry
- Shelley Woodford – NBTP Advisor
Education Subcommittee

Goal: To improve trauma outcomes through enhanced educational support to all NB Trauma Centres

Courses:
- Increase access to trauma related courses
- Courses presented in English and French
- Courses coordinated through NB Trauma Program
- Data base maintained of attendees ATLS, RTTDC, and TNCC
ATLS

- 2.5 day course physician participant - American College of Surgeons
- Non-physician member of trauma team may audit
- 3 courses per year - 1 French, 2 English
- 50% physicians working in NB EDs current in ATLS

(QI Subcommittee, QI Indicators Report for 3rd Q September 2012)
RTTDC

- One day course, all members of trauma team members at rural facilities (American College of Surgeons)
- Goal: Team approach to rapid assessment of trauma victims and communication required immediate transfer
- Pre-course Questionnaire: feedback on facility specific issues or concerns related to providing trauma care and inventory equipment available at that facility to manage a trauma patient
- 11/12 Level V trauma centres -total 131 participants in 2012
- Courses 2013 presently being planned
TNCC

Goal: present core-level knowledge, refine skills, and build a firm foundation in trauma nursing

- 2.5 day course - Emergency Nurses Association
- 44% RNs working in ED in NB current TNCC certification (QI Subcommittee, QI Indicators Report for 3rd Q September 2012)
Education Subcommittee
Questions:
• Are there opportunities for research?
• Can a needs assessment analysis at facilities provide direction for further educational opportunities?
Education Subcommittee

Future plans:
- Simulation trauma team training
- TNCC a mandatory course for ED RNs
- Introduction and education on standardized Nursing Trauma Documentation tool for NB
- ED nursing trauma orientation (basic) package for new nurses to ED
- Ground Trauma Team Transfer Guideline development & education
Quality Improvement Subcommittee

Chair: Dr Paul Goobie
NB Trauma Program: Susan Benjamin
NB Trauma QI Committee

- Committee’s first meeting
- Fredericton, April 18, 2011.
  - Overview of NB Trauma, terms of reference, membership, responsibilities, objectives
  - Resources
  - Action plan
NB Trauma QI Committee

• Membership
  • Physician, NB Trauma, Ambulance NB, Horizon and Vitalité stakeholders, Department of Health and NB Health Council

• Mandate

• Reporting relationship

• Role and term
  • Chair
  • Members
QI Committee Members

- Donald Campbell: HEMS NB - Dept of Health
- Nicole Labrie: Vitalité – St Quentin
- Dr Hristo Laevski: Vitalité - Campbellton
- Catherine Little: Horizon – SJRH
- Michelina Mancuso: NB Health Council
- Lana McLean: Horizon – DECH
- Dr Maurico Mesa: Vitalité – Moncton
  Regional Manager Quality of Medical Care

- Dana Richard: ANB Quality Coordinator
  - Allison Chisholm: NB Trauma Program Data Analyst
NB Trauma QI Committee

- Establish meeting frequency and format
  - Quarterly
  - Teleconference
  - Face to face
- Conflicts of interest
- Policy
NB Trauma QI Committee

- Evaluate province wide trauma
- Levels 1-5
- Ambulance response
- Multifactorial input
- Attempt to statistically analyze data
- “Improve Quality”
Field Trauma Triage Guidelines

1A Immediate Life Threats:
- Inability to ventilate patient or need for ventilatory support or
- Glasgow Coma Scale ≤ 8 or
- Systolic blood pressure < 60 mmHg or
- Decreased breath sounds on either or both sides with associated respiratory distress

1 Physiologic Criteria:
- Glasgow Coma Scale < 14 or
- Systolic blood pressure < 90 mmHg or
- Respiratory rate <10 or >29 breaths/minute (<20 in infant < one year)

2 Anatomic Criteria:
- All penetrating injuries to the head, neck, chest, abdomen, groin, or extremities proximal to elbow or knee
- Chest wall instability or deformity (example: flail chest)
- Two or more proximal long-bone fractures
- Crushed, de-gloved, mangled or pulseless extremity
- Amputation proximal to wrist or ankle
- Pelvic fractures
- Open or depressed skull fracture
- Head trauma with loss of consciousness, amnesia OR disorientation AND age ≥ 65
- Paralysis
- Burns
- Pregnancy ≥ 20 weeks with history of torso trauma

- Transport to the closest available emergency department
- Transport to the closest Trauma Centre with Level 3, 2 or 1 designation
- If transport directly to a Level 2 or 1 Trauma Centre will increase transport time by less than 20 minutes, transport directly to the Level 2 or 1 Trauma Centre
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Demographic Indicators: 24

- Prehospital trauma fatalities
- Number of qualifying trauma patients transported to a NB Trauma Centre
- Number of FTT Activations
- Number of FTT Hospital Bypasses
- Number of Toll Free Trauma Referral System Activations
- Number of Toll Free Trauma Transfers
- Number of FTT Re-transfers
**Demographic Indicators**

- Number of trauma patient transfers involving NB Air Care within NB
  - Number of trauma patients transfers involving NB Aircare outside NB
- Number of pts admitted with major injury ISS>12
- Number of Trauma Team Activations
- Number of Clinical Case Reviews initiated by NBTP
- Number of Clinical Case Reviews completed by NBTP
- Number of Mortality/Morbidity Rounds completed by NBTP
Demographic Indicators

• Number of physicians trained in ATLS prior fiscal year
• Number of participants in RTTDC prior last fiscal year
• Number of ED nurses trained in TNCC prior fiscal year
• Number of grade 9 high school students provided PARTY prior fiscal year
• Number of parents provided childhood Injury Prevention info at 3.5 yr assessment clinic prior fiscal year
• Number of facilitators trained in Canadian Falls Prevention Curriculum (CFPC) prior fiscal year
Demographic Indicators

- Number of child fall admissions (ages 0-15) per reporting period
- Number of youth (Ages 13-29) non-intentional injury related admissions per reporting period
- Number of senior fall (Age >64) admissions per reporting periods
- Total program expenditures to date
- Number of qualifying Trauma Transfers originating "outside the Toll Free Trauma Referral System" line" for reporting period.
System Performance Indicators: 45

- Trauma Transfer Mortality Rate
- Prehospital Trauma Interval ≤ 60 minutes
- Trauma On Scene Time ≤ 20 minutes
- Field Trauma Triage Re-Transfer Rate
- Arrival to Primary Survey Completion Interval < 15 min
- Total Length of Stay ≤ 60 minutes
- Time to Intubation ≤ 10 minutes
- Specialist Availability
- Arrival to CT Interval ≤ 30 minutes
System Performance Indicators

- Arrival to TTL Arrival $\leq$ 20 minutes
- Arrival to full Trauma Team Present $\leq$ 30 minutes
- Rate of Expected Trauma Team Activations
- Arrival to Disposition Decision $\leq$ 60 minutes
- Arrival to Departure from ED Interval- for Intubated Patients $\leq$ 120 minutes
- Time of Intubation to Patient Departure from ED Interval $\leq$ 120 minutes
- Risk-Adjusted Trauma Mortality Rate
System Performance Indicators

- Arrival in Hospital to Toll Free Trauma Referral System Activation Interval ≤ 20 minutes
- Toll Free Trauma Referral System Activation to Departure Interval ≤ 40 minutes
- Toll Free Trauma Referral System Transaction Scores of "acceptable" or "exemplary"
- Toll Free Trauma Referral Physician to Physician Transactions per Trauma Transfer < 6
- ANB on site time for transfer patients ≤ 20 minutes
System Performance Indicators

- Rate of Grade 9 Student Exposure to PARTY
- Rate of Injury Prevention Information provided to NB parents of 3.5 yr olds by Public Health
- Rate of Research Proposals accepted for Funding
- Rate of Research Proposals Accepted for Presentation/Publication
- Rate of Level V Trauma Centres provided RTTDC prior fiscal year
- Rate of Emergency Physicians with current ATLS
- Rate of Emergency Department Nurses with current TNCC
System Performance Indicators

• Rate of case review recommendations forwarded to ANB &/or RHAs for implementation
• Rate Above/Below Approved Operational Expenses
Quality Improvement Committee

• Conclusion
  • We are just beginning!
  • Attempt to Quantify and improve Quality

• Questions?