

CANADIAN PROGRAM FOR MONITORING OVERUSE IN INJURY CARE



PROGRAM TEAM

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RATIONALE

- Injury first cause of loss of productive life years
- Second only to cardiovascular diseases in terms of costs
- Interventions rarely supported by class I evidence
- Evidence of suboptimal care in up to 50% injury admissions
- Significant variation in risk-adjusted resource use and clinical outcomes across trauma centers
- Major knowledge gap on healthcare overuse in injury care



OVERARCHING GOAL

Develop quality indicators
targeting low-value clinical
practices in acute injury care

LOW VALUE CLINICAL PRACTICE

'commonly used tests or treatments that are not supported by evidence and/or could expose patients to unnecessary harm'

1. Overuse 101. The Lown Institute 2017. Available at: <http://lowninstitute.org/learn/overuse-101/>. Accessed on: January 16, 2017.
2. Berwick DM. Avoiding overuse-the next quality frontier. *Lancet* 2017.
3. Brownlee S, Chalkidou K, Doust J, Elshaug AG, Glasziou P, Heath I, et al. Evidence for overuse of medical services around the world. *Lancet* 2017.
4. Saini V, Brownlee S, Elshaug AG, Glasziou P, Heath I. Addressing overuse and underuse around the world. *Lancet* 2017.

OVERVIEW OF RESEARCH PROGRAM

Scoping review

- Identify low-value clinical practices in injury care

Systematic reviews

- Review and GRADE the evidence base for low-value practices

RAND-UCLA consensus study

- Develop indicators measuring low-value practices

Multicenter retrospective cohort

- Derive and validate indicators

Multicenter retrospective cohort

Focus groups

- Advance knowledge on the determinants and impacts of overuse

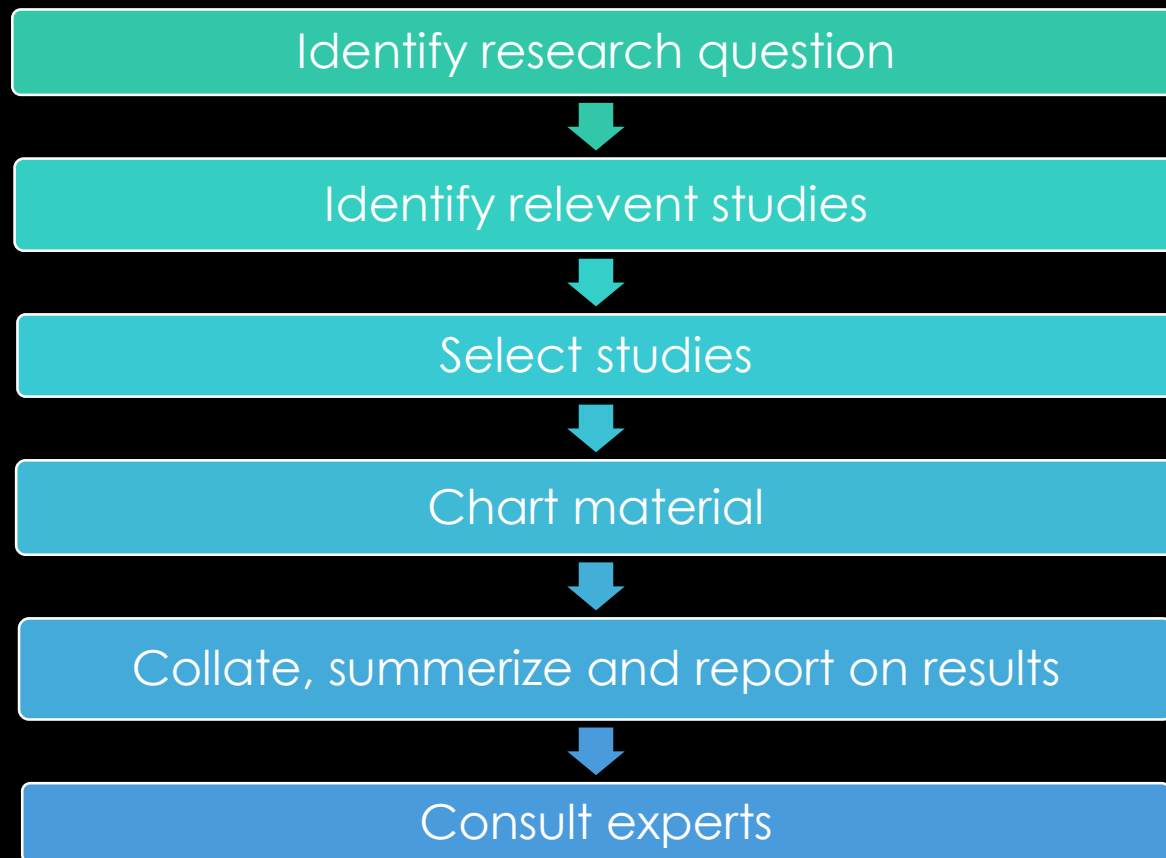
Cluster RCT

- Evaluate the effectiveness of indicators in an audit-feedback intervention

SCOPING REVIEW: OBJECTIVE

- Identify low-value clinical practises in acute injury care that can be used inform the development of quality indicators

SCOPING REVIEW: DESIGN



ELIGIBILITY CRITERIA

PICO	Inclusion	Exclusion
Type of study	Experimental; observational; review;survey; expert consensus; focus group;≥2006	Animal; case report; cadaver
Population	Traumatic injury	Combat injuries, stress fractures, osteoporotic fractures, burns, bites, foreign bodies, poisoning
Intervention	In-hospital practice identified as ineffective or harmful	Experimental (not commonly used); clinical practices outside the hospital (e.g. pre-hospital, rehab); no clear low- value indication
Comparison	NA	NA
Outcome	NA	NA

CLINICAL PRACTICES

- Admissions
- Transfers
- Consultations
- Diagnostic
- Monitoring
- Screening
- Therapeutic - surgical
- Therapeutic - drugs
- Therapeutic - devices
- Therapeutic - other

PRELIMINARY RESULTS

- 40 000 citations
- ~ 800 potentially eligible
- ~ 300 included
- ~ 100 low value clinical practices

PRELIMINARY RESULTS - 1

CLINICAL PRACTISE	LOW-VALUE INDICATION
Admission	
Hospital admission	Pediatric isolated linear skull fracture with normal neurological examination
Transfer	
Transfer to pediatric trauma center	Pediatric isolated upper extremity trauma

PRELIMINARY RESULTS - 2

CLINICAL PRACTISE	LOW-VALUE INDICATION
Diagnostic	
Pre-transfer imaging	Trauma patients initially received in nontrauma hospital and transferred to a trauma center from the ED
Monitoring	
Monitor hematocrit and hemoglobin every 6, 12, or 24h	Stable TBI
Screening	
Routine endocrine evaluation	Pediatric mild to moderate TBI

PRELIMINARY RESULTS - 3

CLINICAL PRACTISE	LOW-VALUE INDICATION
Consultation	
Follow-up consult	Adequately aligned metacarpal fractures
Therapeutic - surgical	
Exploratory surgery	Hemodynamically stable blunt abdominal injuries
Therapeutic - drugs	
Seizure prophylaxis >1 week	TBI

PRELIMINARY RESULTS - 4

CLINICAL PRACTISE	LOW-VALUE INDICATION
Therapeutic - devices	
Rigid cast	Simple pediatric ankle fractures
Therapeutic - other	
RBC transfusion	Trauma with hemoglobin >7 g/dL

IMPACT

- Low-cost, easy-access tool to monitor the use of low-value processes in injury care and flag potential problems and successes
- Inform de-implementation initiatives on a provider and system level
- Inform policy and planning nationally and internationally
- Reduce costs, delays and unnecessary hospital days and increase resource availability
- Improve clinically significant injury outcomes



Questions or
comments?