

Clinician's Capsules for *CJEM* 20(4)

Quality improvement primer part 2: executing a quality improvement project in the emergency department

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What is known about the topic?

Conducting an effective quality improvement (QI) project requires strategic planning steps, presented in the first article of this Primer Series.

What did this study ask?

This article focused on the execution of a QI project.

What did this study find?

We introduced the Model for Improvement, including aim statements, measurements, change concepts/ideas, and implementation using Plan-Do-Study-Act (PDSA) cycles.

Why does this study matter to clinicians?

An enhanced understanding of QI methodology will enable emergency medicine clinicians to drive improvements in patient care processes and outcomes.

Evaluating physician awareness of common health care costs in the emergency department

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What is known about the topic?

Health care costs are on the rise and sustainability is at risk. Physicians have a direct impact on the costs to care but likely have limited awareness of these costs.

What did this study ask?

What is the current level of physician awareness of common healthcare costs?

What did this study find?

ED physicians have limited awareness of common healthcare costs used in day-to-day practice.

Why does this study matter to clinicians?

There is a need for cost awareness education programs and better access to cost information that would equip physicians to manage hospital resources more effectively.

Cannabinoid hyperemesis syndrome presentation to the emergency department: a two-year multi-centre retrospective chart review in a major urban area

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What is known about the topic?

Patients with cannabinoid hyperemesis syndrome (CHS) often present multiple times to the Emergency Department and are discharged with various misdiagnoses.

What did this study ask?

What is the epidemiology of CHS cases presenting to two urban Tertiary Care Centre EDs and one Urgent Care Centre.

What did this study find?

CHS may be an overlooked diagnosis for nausea and vomiting, which can possibly contribute to unnecessary work-ups in the ED.

Why does this study matter to clinicians?

There is a lack of screening for the diagnostic criteria of CHS, especially in quantifying cannabis use, and symptoms of the syndrome.

Randomized Controlled Trial of Emergency Department Initiated Smoking Cessation Counselling and Referral to a Community Counselling Service

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What is known about the topic?

Smoking tobacco is the leading cause of preventable disease and death. However, best practices for ED smoking cessation counselling are unclear.

What did this study ask?

Does an "ask, advise, and refer" approach increase 12 month 30-day quit rates in the stable adult ED smoking population.

What did this study find?

In this randomized controlled trial, there was no statistically significant difference in 12 month 30-day quit rates with the intervention.

Why does this study matter to clinicians?

Although not statistically significant, there was a trend towards increased smoking cessation with the intervention over 12 months of follow-up.

Impact of Premix Antimicrobial Preparation and Time to Administration in Septic Patients

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What is known about the topic?

Strategies to reduce time to antibiotic administration are imperative amongst ED patients presenting with severe sepsis and septic shock.

What did this study ask?

Does the availability of pre-mixed antimicrobial (PMA) formulations in the ED improve time to antimicrobial administration?

What did this study find?

Utilization of PMAs significantly reduced the time to administration of the first antimicrobial agent in ED patients with sepsis.

Why does this study matter to clinicians?

Our study helps establish PMAs as an independent factor in antimicrobial administration time for septic patients in the ED.

Uncomplicated urinary tract infections in the emergency department: a review of local practice patterns

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What is known about the topic?

Despite being commonly encountered in the ED, there is little consensus on the diagnosis or management of uncomplicated UTIs in young, healthy women.

What did this study ask?

What proportion of women with symptoms of an uncomplicated UTI have urine cultures performed, and does the culture result impact subsequent management?

What did this study find?

Urine cultures are frequently ordered for ED patients who are treated for uncomplicated cystitis; however, the results rarely (0.5%) change clinical care.

Why does this study matter to clinicians?

For the majority of young female patients with an uncomplicated UTI, urine cultures did not change management in the ED setting.

Return Visits to the Pediatric Emergency Department: A Multi-Center Retrospective Cohort Study

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doi: 10.1017/cem.2017.40

What is known about the topic?

Pediatric emergency returns (RTED) occur frequently, add to healthcare utilization, and are used as a measure of quality of care.

What did this study ask?

We explored how frequently RTED occur at other EDs in the region, in addition to the original site of visit.

What did this study find?

Nearly 8% of all visit to a pediatric have an RTED, 13% of those occurred at another site.

Why does this study matter to clinicians?

Pediatric ED managers and researchers who use only local data to assess RTED rates underestimate the true burden of RTED.

Epidemiology of Electrical And Lightning Related Injuries Among Canadian Children and Youth from 1997-2010: A CHIRPP Study

Madeleine Böhrer, BSc; Samuel A. Stewart, PhD; Katrina F. Hurley, MD, MHI
doi: 10.1017/cem.2017.49

What is known about the topic?

Previously, most pediatric electrical injuries occurred at home, precipitated by contact with electrical cords, wall sockets and faulty electrical equipment.

What did this study ask?

What is the epidemiology of electrical injuries in children who presented to Canadian Emergency Departments from 1997 to 2010?

What did this study find?

The number of electrical injuries per year has decreased, with most injuries still occurring at home.

Why does this study matter to clinicians?

Injury prevention strategies should continue to target home safety, particularly surrounding electrical outlets.

Retrospective evaluation of the BIG score to predict mortality in pediatric blunt trauma

Charlotte Grandjean-Blanchet, MD; Guillaume Emeriaud, MD; Marianne Beaudin, MD; Jocelyn Gravel, MD, MSc
doi: 10.1017/cem.2017.379

What is known about the topic?

The BIG score is a recently developed trauma score composed of the base deficit, INR and GCS.

What did this study ask?

Can the BIG score predict in-hospital mortality among children with blunt trauma admitted to a pediatric emergency department?

What did this study find?

A BIG score of <16 identified children with a high probability of survival.

Why does this study matter to clinicians?

The BIG score is a simple tool rapidly available and provides important information about the severity of the patient's injuries.

Cut and Rip and Cut Alone techniques versus Usual Practice in the removal of trauma patient clothing

Aaron K. Sibley, MD; Trevor N. Jain, MD, MSc; Brent Nicholson, BA, ACP; Paul Atkinson, MB, MA

doi: 10.1017/cem.2017.346

What is known about the topic?

Currently no standard exists with regard to clothing removal techniques in trauma care.

What did this study ask?

How do two specific clothing removal techniques using trauma scissors compare to standard paramedic practice in time to expose a simulated trauma patient?

What did this study find?

A technique using a combination of cutting and ripping clothing with hands was the fastest method to remove patient clothing.

Why does this study matter to physicians?

Rapid exposure of critically ill trauma patients may allow early discovery and management of life threatening injuries.

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Factors Associated with Delay in Trauma Team Activation and Impact on Patient Outcomes

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What is known about the topic?

Trauma teams improve mortality of severely injured trauma patients and delayed team activation is a quality measure of trauma systems.

What did this study ask?

What are the factors associated with delay in activation of trauma teams and is delay associated with worse clinical outcomes?

What did this study find?

Older patients were more likely to experience delay in team activation with no statistically significant difference in patient outcomes.

Why does this study matter to clinicians?

Emergency physicians should be aware that the extent of injuries in elderly trauma patients is often initially underestimated

Risk factors for adverse outcomes in older adults with blunt chest trauma: a systematic review

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What is known about the topic?

There is little research examining risk factors and outcomes of blunt chest wall trauma in patients aged ≥ 65 years.

What did this study ask?

To systematically review risk factors related to adverse outcomes in older adults who sustained blunt chest wall trauma.

What did this study find?

While included studies were heterogeneous increasing number of rib fractures was associated with increased morbidity, mortality and length of stay.

Why does this study matter to clinicians?

Given the aging population and likely future increases in ED presentations of older aged patients, additional high-quality studies are indicated.