Procedural Sedation and Analgesia

Priority Goals:

Disseminating

Network. Start

in BCEHS.

Implement

rapid analgesia

protocol in LGH ED

procedural sedation

best practices on EM

controlled trial using

intranasal ketamine

Gary Andolfatto

Situation:

Currently the time to analgesia in ED is excessively long. Prehospital ability to provide analgesia is very limited. The best management for ED sedation is not clear.

Vision:

Safe, effective, timely, efficient, equitable, evidence-informed and patient-centred procedural sedation and analgesia.

Stakeholders:

- Health Authorities
- Lions Gate Hospital
- VCHRI
- The North Shore Health Research Foundation
- Harvard Children's Hospital
- MIT
- Several US & European sites
- UBC DEM Members

Inputs

Literature review of procedural sedation practices/outcomes; consultations with VCH and BC Patient Safety & Quality Council

Procedural sedation monitoring collaboration with Harvard Children's Hospital, MIT and other centers in the US and Europe. Investigating novel patient monitoring strategies to predict adverse events

Early analgesia initiative literature review and identified time to analgesia delivery; stakeholder meetings

Clinical trial of intranasal (IN) ketamine

Design trial evaluating IM ketamine for rapid control of agitation

Design and implement C-CUSP Study (Canadian Utilization fo Stroke Prophylaxis) in the ED completed

Activities

Collaboration on Clinical Practice Guideline developed for VCH Region

Clinical comparison trials for effects on breathing, adverse effects and patient comfort; physical and chemical compatibility studies

Design, develop and refine techniques, medication regimens, and monitoring strategies to improve provision of ED procedural sedation and analgesia; analysis and publication of findings

ED Analgesics Initiative launched

Founding member of the International Committee for the Advancement of Procedural Sedation, March 2015

Outputs

Review and update of Clinical Practice Guidelines and instruction for UBC EM residents

Publish draft of EM Network Best Practices guidelines for procedural sedation

Dissemination of best practice guidelines for fasting and monitoring during procedural sedation through teaching/conferences

Procedural sedation monitoring findings taught to residents, presented at provincial, national and international conferences

Procedural sedation monitoring collaboration with Harvard, MIT and international centres

Publish LGH early analgesia trial

Article published on IV and intranasal ketamine for procedural sedation, informing best practice guidelines

Published guideline for adverse event reporting (TROOPS)

Clinical trial of IN ketamine in prehospital setting completed

Access to best practices guidelines in all

BC ED's via EM

Network website

Short Term (<1 yr)

Present new guidelines at provincial

conferences

Investigate new technologies for monitoring procedural sedation

Institutionalized clinical practice change for IN ketamine delivery by EHS in test sites

Shorter time to analgesia after early analgesia protocol enacted

Publish IN ketamine in prehospital study (PAIN-K) trial

Publish Clinical Practice Guideline for use of propofol for ED procedural sedation

Develop evidence-based guideline for fasting during PSA thru ICAPS committee Long Term (2-3yrs)

Outcomes

Measure reach and engagement of best practices guidelines on EM Network

Subjective opinion survey of BC EP's on use of PSA guidelines

IN ketamine delivery by EHS province-wide becomes treatment guideline

Reduced time to analgesia delivery in test hospital, then broadly

New trials of analgesic agents
- IN and IV ketamine combined with sedatives

Publish
evidence-based
guideline for
fasting during
procedural
sedation

Adaption of best practices for provision of ED procedural sedation & analgesia that

procedural sedation & analgesia that improve patient comfort, safety, ED flow and efficiency

Overall Impact

Improved patient comfort and clinical humane care by provision of analgesics in the pre-hospital setting

Shorter times to analgesics in ED; change in provincial practice

Significant Challenges:

Communication barriers: provincial approvals for prehospital analgesic use; funding deficiencies.