Emergency Department (ED) Response to Opioid Overdose Crisis

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Situation
BC is grappling to contain opioid overdose (OD) deaths. BC declared a public health emergency in 2016.

EDs frequently treat patients who use opioids, who are at high risk of mortality. At-risk patients often visit EDs prior to overdose.

Vision
To improve the ED care and health outcomes of people who use opioids.

Stakeholders
- UBC DEM
- BC Health Authorities
- BC Ministry of Health
- People Who Use Drugs (PWUD) groups
- Overdose Emergency Response Centre (MMHA)
- VCH Overdose Outreach Team
- CAEP
- C2E2
- CHEOS
- BCCSU
- BCCDC
- BCPSQC
- BC Overdose Prevention Sites (OPS) supervised consumption sites

Priority Goals

1. Improve ED identification of people at high OD risk

2. Improve ED treatments and supports for patients with opioid use disorder (OUD)

3. Design, study, and implement ED opioid agonist therapy (OAT) interventions

4. Improve ED provider capacity to serve ED patients with OUD

5. Disseminate best practices for OUD care to BC EDs

Inputs

Funding
- CIHR
- Health Canada Substance Use and Addictions Program
- CAEP
- VCHRI
- BCCDC Foundation
- Vancouver Foundation
- CRISM
- St Paul's Foundation

Partnerships
- Alberta Health Services
- Canadian Research Initiative in Substance Misuse
- Lifeguard mobile app
- CAEP
- CIHR

Patient Partners
- BCCDC Peer Engagement and Evaluation Project (PEEP)

Data and Tech
- Overdose Outreach Team database
- BCCDC OD Cohort
- PopData BC linked database of ED visits
- CIHI Dynamic Cohort of frequent ED users
- Insite safe injection site data
- Cerner electronic medical records data
- LifeGaurd App

Activities

Studying epidemiology of BC/National ED visits and the BC Overdose Cohort. Identifying risk factors for OD's, mortality, and targets for intervention

Developing and implementing ED buprenorphine/naloxone (BUP) programs. Evaluating novel microdosing method in multi-centre RCT.

Implementing & evaluating novel continuous pulse oximetry monitoring program at OPS sites to improve monitoring of clients who smoke opioids

Contributing to ED-specific BCCSU guidelines and education modules for OUD treatment, and BCCDC guidelines for overdose resuscitation

Creating screening support and decision support tools for ED OUD care

Longitudinal follow-up of ED patients with OUD

Regional QI initatives with SPH, VGH, & VCH

LOUD in the ED: BC QI & KT initiatives to improve ED OAT access and use in BC EDs

Evaluate optimal naloxone dosing to reverse overdoses using ED and Insite data

Outputs

Clinical Guidelines
- ED BUP protocols (standard & microdosing)
- BC naloxone dosing guidelines
- BC opioid overdose resuscitation guidelines
- Continuous pulse oximetry monitoring protocol and guidelines for OPS sites

Education
- ED multi-disciplinary provider education materials for BUP initiation
- Patient education handouts for naloxone and other ED treatments

Peer engagement
- Providing opportunities for people with lived experience with opioid use to co-develop and evaluate ED programs
- Forums for patients with lived experience with opioid use and ED providers to engage in participatory research and program implementation

Knowledge Translation
- Involvement of decision makers at BCCDC, Ministry, and health regions to enable policy change
- Clinician engagement in research process to integrate findings into clinical practice
- Development of provincial and national harm reduction guidelines in collaboration with the BCCDC

Publications
PWUD experience during COVID-19, PWUD opinions of ED and outreach care, acceptability of ED treatment and outreach, evidence basis for naloxone dosing, feasibility and effectiveness of ED buprenorphine/naloxone microdosing, outcomes for high risk patients

Provincial ED OUD care toolkit including pathways, order sets, and staff and patient education materials

Outcomes

Short Term (<1 yr)

ED provider awareness of clinical tools & learning materials

Increased identification of patients with OUD and preventive interventions in EDs

Feasibility of ED BUP programs

Dissemination of guidelines: naloxone use and opioid OD resuscitation via BCCDC and EMN

Implementation and study of novel clinical protocols for BUP initiation

Identification of risk factors for OD and mortality in the ED. Pilot screening interventions to identify high risk patients

Better understand facilitating factors and barriers to successful OUD programs in ED

ED OUD cohort and framework est. for implementation science evaluations

Long Term (2-3yrs)

BUP available from the majority of EDs in BC

Completion of a multi-site RCT evaluating BUP standard dose & microdosing in the ED

Uptake of guidelines for naloxone administration and opioid OD resuscitation by EDs, emergency health services, community groups, and lay responders

Wide availability of continuous pulse oximetry monitoring (eg in supportive housing, apps for PWUD)

Implementation of standardized screening to identify patients with OUD, integrated into Cerner

Framework established for rapid evaluation of new ED interventions for OUD

More ED providers providing best practice OUD care

Overall Impact

Improved ability of EDs to identify patients at risk for OD and ability to offer BUP and other interventions

Development of provincial guidelines for ED-based care.

Standardized ED care of OUD patients

Decreased morbidity and mortality due to opioid overdose

Continuous improvement OUD outcomes and resource allocation

Recognized national and international research leadership in innovative ED treatments for OUD patients

Significant Challenges
Heterogeneity of approaches to OD management and ED care. Variability in leadership, capacity, and resources required to implement changes in ED-based care. Logistic barriers to developing ED programs, e.g. restrictions on in-ED drug dispensing and documentation. Timely access to data for evaluation and research purposes. Challenges coordinating and meaningfully engaging multiple stakeholders. Difficulty developing ED programs optimized for a diverse patient population.