

# **Association of hospital-based substance use supports on emergency department revisits and hospitalization: a retrospective single centre cohort study in Sudbury, Canada from 2018-2022**

Category: Oral Presentation

## Abstract Body

**Background:** This study compares ED and hospital re-visits for patients receiving hospital-based substance-use support levels at Health Sciences North in Sudbury, Ontario, Canada. Among patients who were discharged from the emergency department or hospitalization at Health Sciences North for substance use disorder, who received the intervention of hospital-based substance use supports compared to patients who were discharged with the standard of care, what is the likelihood, timing, and factors associated with 30-day readmission to ED or hospital and all readmission or hospitalization.

**Methods:** The study is a retrospective observational study using administrative data from all patients presenting with substance use disorder (SUD) visits at Health Sciences North from January 1, 2018, and August 31, 2022. There were two interventions under study: addiction medicine consult services (AMCS group), and specialized addiction medicine unit (AMU group). The primary outcome was ED or hospital revisit within 30 days of the index visit, the secondary outcome was all observed ED or hospital revisits.

**Results:** 5,345 patients with 10,871 ED index visits for ED or hospital admissions between 2018 and 2022. 30-day revisits were less likely among the Admit/no service group (OR = 0.56, 95% CI 0.48-0.66) and the AMCS group (OR = 0.76, 95%CI 0.60-0.96).

**Conclusion and impact:** Statistically significant differences in of ED and hospital revisits for patients receiving hospital-based substance-use support at Health Sciences North. Hospital-based substance-use supports could be applied to other hospitals to reduce re-admission to ED and hospital inpatient units.

## Key Words

- Caring in Crisis
- Epidemiology
- Substance Use Disorder (general)
- Treatment Models/Programs

Learning Objective # 1

1. After this presentation, conference attendees will be able to describe the impact of addiction-focused services on emergency department revisits.

#### Learning Objective # 2

2. After this presentation, conference attendees will be able to use this information to justify decisions around implementing addiction-focused supports in their own organization.

#### Reference # 1

Moe J, Wang, Y.E., Schull, M.J. et al. . Characterizing people with frequent emergency department visits and substance use: a retrospective cohort study of linked administrative data in Ontario, Alberta, and B.C., Canada. *BMC Emerg Med.* 2022;22(127).

#### Reference # 2

Englander H, Dobbertin K, Lind BK, Nicolaidis C, Graven P, Dorfman C, et al. Inpatient Addiction Medicine Consultation and Post-Hospital Substance Use Disorder Treatment Engagement: a Propensity-Matched Analysis. *J Gen Intern Med.* 2019;34(12):2796-803. 21. Englander H, King C, Nicolaidis C, Collins D, Patten A, Gregg J, et al. Predictors of Opioid and Alcohol Pharmacotherapy Initiation at Hospital Discharge Among Patients Seen by an Inpatient Addiction Consult Service. *J Addict Med.* 2020;14(5):415-22.

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