



Can we make hospitals safe for people who use drugs?

Tommy Brothers, MD CISAM thomas.brothers@dal.ca



@tdbrothers

Acknowledgments / Disclosures

- I live and work in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq. We are all Treaty people.
- The information I share today is made possible by the generosity of people with lived/living experience of criminalized drug use, who share their knowledge and experience with me.
- No relationship with industry.

Key messages

- People do not give up their right to health care, just because they use drugs
- Patients come to the hospital for necessary medical care, not (necessarily) because they want to stop using drugs
- 3. Hospital policies (that require abstinence) create harms for people who use drugs
- 4. Hospitals should strive to (at least) offer the standard of care provided by community-based harm reduction programs





MOBILE OUTREACH STREET HEALTH





PREVENT. EDUCATE. EMPOWER. RESPECT. SUPPORT.





Mi'kmaw Native Friendship Centre





















Hospitals as high-risk environments for people who use drugs

Abstinence only policies (written or unwritten); lack of harm reduction supports; stigma

Delayed presentation for care; Inadequate pain & withdrawal management; premature discharges "against medical advice"

Increased morbidity and mortality for people who use drugs



Contents lists available at ScienceDirect



I had to get out of there while I could move because I was losing so much weight... When I begged and begged to get some help [i.e., prescription opioids], they couldn't, weren't gonna do anything and so I just said, "Fine, I'm leaving." [...] I was concerned [about the health consequences of leaving hospital]. You know, I got this other thing [opiate dependency] and it's...it's like you're stuck between a rock and a hard spot. I mean, how can I even fight off the infection if I can't stop puking and shitting? [Participant #15, Caucasian Female, 47 years old]

[Security guards] yell and scream at you...When there's nobody around, [they say], "You fucking junkie." [...] A few times, I've been shaken down [searched] by [security guards] even though [I had] nothing to get high [i.e., had no drugs in her possession]. They search you, destroy your property, cause a scene, and make sure everybody there knows that you're a drug addict. [...] They use their authority to pull power trips more or less. It's not right. [Participant #12, Aboriginal Female, 29 years old]

in ongoing observational cohort studies of people who inject drugs who reported that they had been discharged from hospital against medical advice within the previous two years. Data were analyzed thematically, and by drawing on the 'risk environment' framework and concepts of social violence. Our findings illustrate how intersecting social and structural factors led to inadequate pain and withdrawal management, which led to continued drug use in hospital settings. In turn, diverse forms of social control

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Contents lists available at ScienceDirect



Social Science & Medicine

They [i.e. nurses] don't give rigs [i.e. syringes] to us...I think that they should. If not, we're reusing our rigs or we're having to risk getting kicked out for stealing them or people'll be sharing them. [...] I know one girl was using her same rig for days to the point where it was tearing and she was suffering every time she'd do her fix. She just didn't have it in her to go and try and steal clean rigs. Whereas for me, my friend that I was with had no problem. She would just sneak in and grab some for both of us. [Participant #30, Aboriginal Female, 28 years old]

If you're sharing a room with somebody, there's always that threat that somebody's just gonna come in and not realize you're in there [the bathroom] and open [the door]. [...] I think they pretty much have zero tolerance in [the hospital]. I was worried about getting kicked out and then not getting the proper health care that I needed to get better. [...] I'd turn the tap so, if they came in my room to check to see if I was okay, then they'd hear the water running so they'd figure oh she's just in the bathroom. [Participant #25, Caucasian Female, 44 years old]

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PLOS MEDICINE

RESEARCH ARTICLE

Fatal opioid overdoses during and shortly after hospital admissions in England: A case-crossover study

Dan Lewer 1,2,3*, Brian Eastwood 2, Martin White 2, Thomas D. Brothers 1,3,4, Martin McCusker, Caroline Copeland 6,7, Michael Farrell 3, Irene Petersen 8

- Department of Epidemiology and Public Health, University College London, London, United Kingdom,
 Alcohol, Drugs, Tobacco and Justice Division, Public Health England, London, United Kingdom,
 National Drug and Alcohol Research Centre, University of New South Wales, Kensington, Australia,
 Department of Medicine, Dalhousie University, Halifax, Canada,
 Lambeth Service User Council, London, United Kingdom,
 Institute of Pharmaceutical Sciences, King's College London, London, United Kingdom,
 Programme on Substance Abuse Deaths, St George's, University of London, London, United Kingdom,
- 8 Department of Primary Care and Population Health, University College London, London, United Kingdom
- * d.lewer@ucl.ac.uk
- 4 times increased risk of fatal opioid overdose in first two days after hospital discharge
- 8 times increased risk if "against medical advice" hospital discharge



How are we doing in the Maritimes?

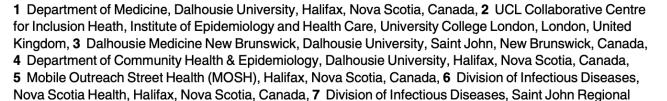
PLOS ONE

RESEARCH ARTICLE

Unequal access to opioid agonist treatment and sterile injecting equipment among hospitalized patients with injection drug useassociated infective endocarditis

Thomas D. Brothers 1,2*, Kimiko Mosseler³, Susan Kirkland¹,⁴, Patti Melanson⁵†, Lisa Barrett¹,⁶, Duncan Webster¹,७

Hospital and Dalhousie University, Saint John, New Brunswick, Canada





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QEII Health Sciences Centre Halifax, NS



Saint John Regional Hospital Saint John, NB

vs.





Surrounding community-based harm reduction services





Institutional policies on harm reduction







Inpatient needle & syringe distribution program





Hospital-based methadone and buprenorphine prescribers





PWUD role in hospital care team



Harm reduction policies at Saint John Regional Hospital

INTRAVENOUS N

Sta

Atlantic Health Sciences Corporation Corporation des sciences de la santé de l'Atlantique

- Sharps containers will I prescription parenteral
- Needles will be provide basis, to include period and in consideration of
- 3. Safe injection sites will respected in consideral
- In unusual circumstance consulted for assistance or departmental chief r
- Patients with parentera non-prescription drugs their bed. This will mir

Protocol for Opioid Withdrawal Order Guide

- 1. Complete Drug Inventory Assessment Form
- 2. Have patient sign the Patient Agreement for Management of Opioid Withdrawal
- 3. Labs completed on Admission:
 - ☐ Hepatitis A Total (IgG+IgM)
 - Hepatitis B surface antigen
 - ☐ Hepatitis B surface antibody or Hepatitis B titre to check immunity
 - ☐ Hepatitis C screen
 - ☐ HIV Screen
 - ☐ RPF
 - Pregnancy test (urine). If pregnant, place patient on opiate maintenance and consult Obstetrics If history suggests possibility of early pregnancy, confirm with serum beta HCG
 - Urine for Gonorrhea, Chlamydia
 - ☐ PPD (Protein Purified Derivative 0.5 TU intradermally)
 - ☐ Urine Abuse Screen on admission and weekly there after
- Vaccinations (all vaccinations should be entered to be administered 72 hours after administration)
 - ☐ Assess for previous adverse reactions or contraindications
 - Twinrix vaccine (Hepatitis A & B)1.0 ml IM Q 7 days times three doses. Day 0_____ Day 7____ Day 14____. Do not wait for hepatitis serology results before giving first dose. Advise patient that a booster dose will be required at 12 months.
 - ☐ Engenerix-B 20 mcg (1.0 ml) IM Q7 days times 3 doses: Day 0 ___, Day 7 ___,
- Day 14 ____. Advise patient that a booster will be required at 12 months.

 ☐ Pneumovax 0.5 ml IM given on if never received and no
- contraindications

 Td Booster0.5 ml IM given on ______ if none received in past 10 years
- ☐ Influenza vaccine 0.5 ml given on _______if available and no contraindications
- Record vaccination in vaccine card at time of vaccination and give to patient prior to

Appendix E

No
Dilize patient for first 48-72 hrs.: expected to be inpatient for 7-10 days

Yes

er Methadone for management of opiate withdrawal.

t IMTU Methadone Physician to assess

Yes
sidered a suitable candidate for

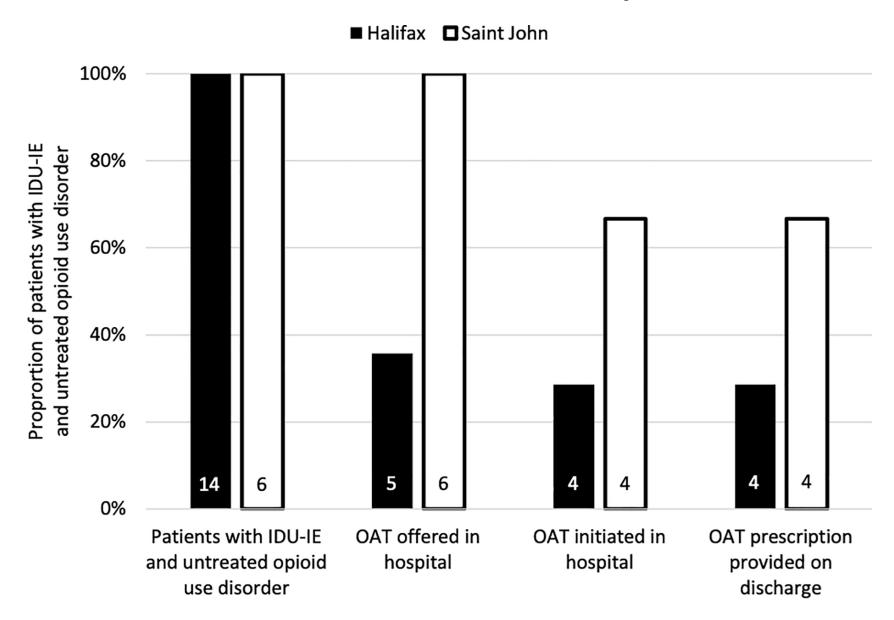
by IMTU Methadone Physician

rotocol for Opiod Withdrawal

idgewood Addiction Services

Using Methadone.

Access to OAT in hospital



Injecting equipment in hospital

	Halifax (21 hospitalizations)	Saint John (17 hospitalizations)
Offered sterile injecting equipment in hospital	0 (0%)	4 (24%)
Confiscated patients' own injecting equipment in hospital	5 (24%)	2 (12%)

Unmet needs in hospital

	Halifax (21 hospitalizations)	Saint John (17 hospitalizations)
Uncontrolled pain or undertreated opioid withdrawal	16 (76%)	9 (53%)
Illicit or non-medical substance use in hospital	7 (33%)	5 (29%)
Patient-initiated discharges against medical advice	2 (10%)	2 (12%)

What more can we do?

Making hospitals safe(r) for people who use drugs

- Compassionate, culturally safe care
- Staff education, training, culture change
- PWUD involved in service planning and delivery
- Opioid agonist treatment on-demand
- Short-acting opioids (e.g. hydromorphone / Dilaudid) for pain and withdrawal
- Distributing safe injecting equipment
- Safe consumption sites / overdose prevention sites
- Specialized "addiction consult services"

CI in H 1. Foster engagement and participation of people who have experience with substance use and marginalization in shaping the care they and their peers receive.

Е

AU² MN, 2. Recognize that people's health, health care, priorities and experiences are influenced by history and policies that criminalize drug use.

for social

HEALTH CAKE AND ILLICIT DRUG USE

How can nurses enhance delivery of culturally safe,

People illicit d often h The sti

health

3. Consider how past histories of trauma and violence, layers of disadvantage and stigma may affect patients' ability to engage with providers and care plans.

arge acute culturally ostering

no identify

care and, if admitted, to leave before their care is complete.

or limiting that care. We did in-depth individual interviews with

Hospita care th and en 4. Emphasize relationships and trust as priority outcomes.

anagers nonths)

e and 1

to help nurses provide ethical, safe and appropriate care

patients, and studied the hospital's organizational policies and

nursin

5. Promote a culture of respect and safety within the unit or workplace, where all patients are valued and seen as deserving of care.

of the included

าdate,

LID), a peer

particularly when working with indigenous peoples.

run organization for people who use(a) illicit drugs. We worked





"Patients who use psychoactive substances have the right to receive equitable, non-judgmental, and evidence-based health care services regardless of whether the substances they use are legal or illegal"

Clinical Operations Executive Committee

December 16, 2013

"Individuals with lived experience have expertise to contribute as partners in the creation of programs, policies, and harm reduction strategies designed to serve them, and their input is valued and respected"

If you have any questions or comments regarding the information in this decument, places contact the Policy & Forms Department.

"Programs, services, and health care providers across the care continuum shall provide low threshold access to harm reduction services, treatment, and/or referral for patients (e.g., opioid agonist therapy, managed alcohol program)"

(including controlled drugs such as alcohol, tobacco and prescription drugs). This policy is intended:

To clarify the responsibility of health care providers to provide patients who use

Hospital as a "reachable moment"

SUBSTANCE ABUSE https://doi.org/10.1080/08897077.2020.1856291



BRIEF REPORT

3 OPEN ACCESS



Implementation and evaluation of a novel, unofficial, trainee-organized hospital addiction medicine consultation service

Thomas D. Brothers, MD^a D, John Fraser, MD^b, Emily MacAdam, MD^a D, Brendan Morgan, MD^c, Jordan Francheville, MD^a D, Aditya Nidumolu, MD^d, Christopher Cheung, MD^c, Samuel Hickcox, MD^e, David Saunders, MD^{f,g}, Tiffany O'Donnell, MD^{h,i}, Leah Genge, MD^{b,f,i}, and Duncan Webster, MD^{a,j} D

- All patients offered short-acting opioids for pain & withdrawal, in addition to OAT
- 82% of patients with untreated opioid use disorder started treatment in hospital
- 89% of these patients continued after discharge



PRACTICE GUIDELINE

Assessment & Interventions:

If a patient is assessed to be an unsafe sharps risk (e.g. uncapped needles found in room, belongings, on person), the following actions should be taken:

- Discuss unsafe sharps concern with patient
- Educate patient re: safe disposal of sharps
- Create patient specific sharps support plan in collaboration with Clinical Nurse Lead (CNL) (as per instructions on back of Unsafe Sharps Risk Support Plan)
- Notify Addiction Medicine Consult Team of concern and sharps support plan
- Place Unsafe Sharps Risk Support Plan in front of patient Kardex.
- Place sharps risk signage on patient's door
- Review Unsafe Sharps Risk Support Plan at review date for potential revisions or discontinuation

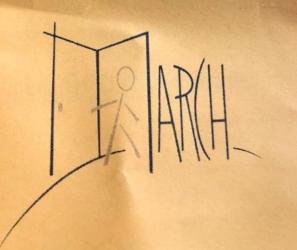
risk to health care staff

- The goal is to eliminate the risk of unintended needle stick injury to any persons having contact with the patient or their belongings e.g. nurses, allied health, housekeepers, physicians, etc.
- The goal to reduce or stop substance use is a decision made over time and abstinence may not be the primary goal of care nor is it always achievable.



24/7 supervised consumption service for Royal Alexandra Hospital (RAH) inpatients.

We look forward to meeting you!





Overdose Prevention Site @ St. Paul's Hospital

- Opened May 2018
- Serves inpatients and community
- Partnership
 between
 Providence
 Health Care,
 Raincity Housing
 and Vancouver
 Coastal Health

WHAT IT IS:

- A non-judgmental and safer place to use drugs in the West End.
- A confidential and respectful site to connect with support workers and peers.
- A place that provides monitoring of any overdoses and gets you emergency care if you need it.

WHAT IT OFFERS:

- Take-home naloxone kits and training.
- · Clean injection supplies.
- · Safe needle disposal.
- Peer support.
- Referrals to health and community services.
- Drug testing.

HOURS:

- Opens at 11 am with last visit at 10:30 pm. Open 7 days a week.
- If you need emergency help when the OPS is closed, call 911 or visit St. Paul's Emergency Department.



Resources

Caring for people who inject drugs when they are admitted to hospital

Thomas D. Brothers MD, John Fraser MD, Duncan Webster MD

■ Cite as: CMAJ 2021 March 22;193:E423-4. doi: 10.1503/cmaj.202124



Commentary

Hospital policy as a harm reduction intervention for people who use drugs



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Key messages

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Appendix slides

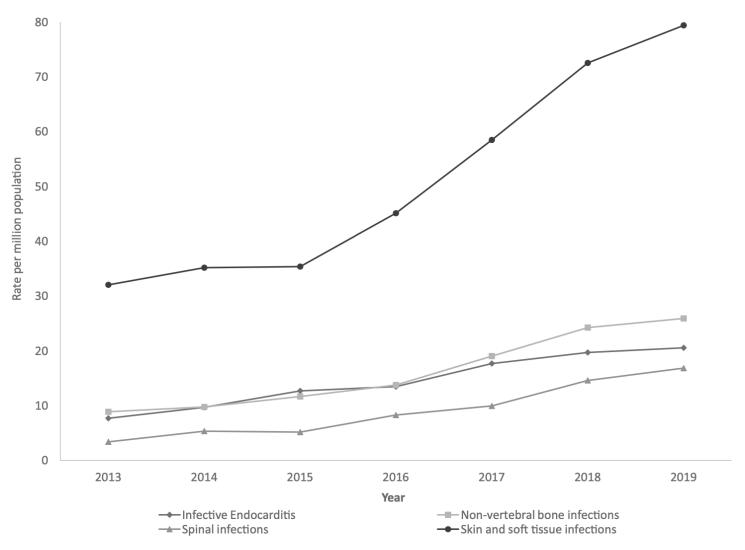
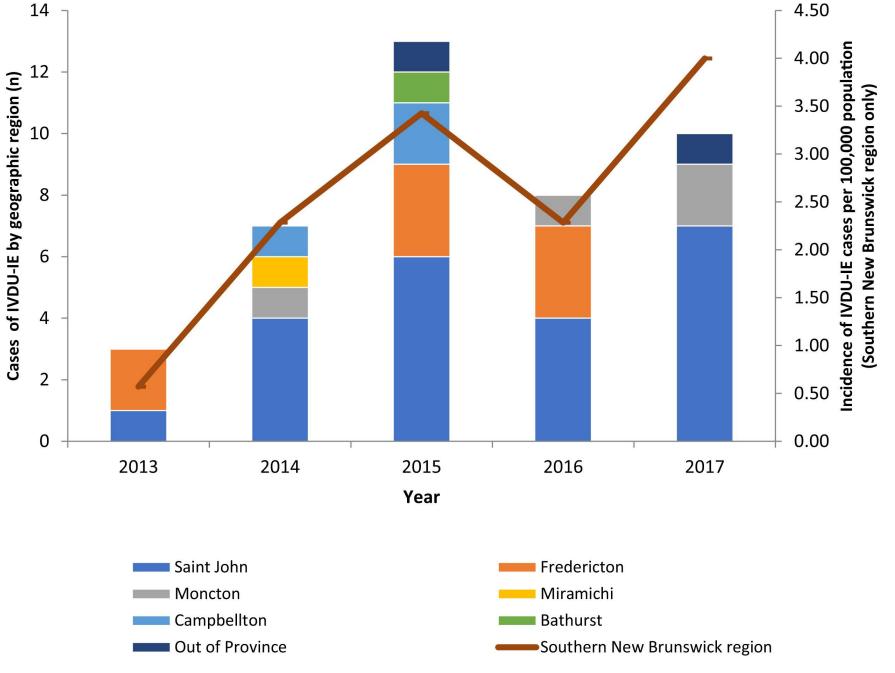


FIGURE 1. Rate of hospitalizations for serious infections among people with an opioid use disorder in Ontario, from 2013 to 2019. Annual population-adjusted rates (per million) of hospitalizations for serious infections in Ontario, Canada, stratified by infection type.



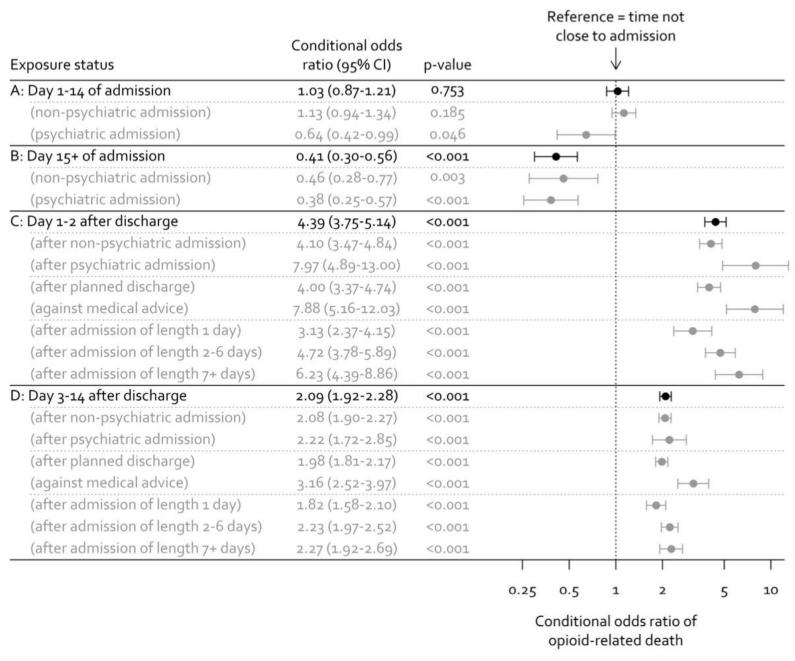


Fig 3. Risk of opioid-related death according to time proximity to hospital admission (results of case-crossover analysis).

"It is recognized that not all women are able to abstain from substance use and that no woman will voluntarily experience withdrawal."

In the event that an illegal substance is found, health care team members will:

- Discuss with the woman, her need for continued use of illegal substances
- Request the woman's permission to consult with her addiction care team
- A supportive plan of care will be developed
- Security will be notified, to dispose of the substance according to health centre policies

arconor and or preserroed medications in a non-preserroed mainter.

What if I suspect a woman has illegal substances in her possession? Can a search of her belongings be performed?

Answer:

It is not the IWK Health Centre policy to search a patient or her belongings for illegal drugs and substances.

environment and mantam eare for women who continue to paopame abe.

Trauma-informed care

5 principles:

- 1. Trauma awareness and acknowledgment
- 2. Safety and trustworthiness
- 3. Choice, control, and collaboration
- 4. Strengths-based and skills-building care
- 5. Cultural, historical, and gender issues

Strengths based/Trauma-informed

What is wrong with you?

What has happened to you?

Attention seeking

Trying to connect in the best way they know how

Manipulative

Has difficulty asking directly for what they want

"To prevent the hospital from being charged with illegal possession, employees must report the existence of any potentially harmful or illegal items/substances over to the police."

Distribution District Wide

Dans. 4 of 6

"The patient will then be searched... if the patient refuses, he/she will be asked to leave the Emergency Department. If the patient refuses to leave the Emergency Department, the local police will be called."

"If the patient's chart has been flagged in relation to banned items, the Triage Nurse contacts Security. ... He/she is informed that Security is required to perform a search, using a metal detector, of the patient and his/her belonging, because of the patient's history of bringing such items to the hospital. If the patient is resistive, the local police service will be called."

law. In the ordinary course, when illegal items are surrendered, it is not necessary to reveal the name of the person who brought the illegal item/substance to the hospital/program to law enforcement authorities. If the police want to investigate further, they can obtain a search warrant to obtain the information.

Original Investigation

Buprenorphine Treatment for Hospitalized, Opioid-Dependent Patients A Randomized Clinical Trial

Jane M. Liebschutz, MD, MPH; Denise Crooks, MPH; Debra Herman, PhD; Bradley Anderson, PhD; Judith Tsui, MD, MPH; Lidia Z. Meshesha, BA; Shernaz Dossabhoy, BA; Michael Stein, MD

People started on buprenorphine in hospital & continued after discharge were...

OBJECTIVE To determine whether buprenorphine administration during medical

7X more likely to engage in treatment after discharge

75% vs. 11%

participation in the randomized clinical trial. Of these, 139 completed the baseline interview and were assigned to the detoxification (n = 67) or linkage (n = 72) group.

INTERVENTIONS Five-day buprenorphine detoxification protocol or buprenorphine induction, intrahospital dose stabilization, and postdischarge transition to maintenance buprenorphine OAT affiliated with the hospital's primary care clinic (linkage).

MAIN OUTCOMES AND MEASURES Entry and sustained engagement with buprenorphine OAT at 1, 3, and 6 months (medical record verified) and prior 30-day use of illicit opioids (self-report).

BRIEF REPORT







atients

Addiction Medicine Consultations
Reduce Readmission Rates for Patients
With Serious Infections From Opioid

infections are common in this population, dangerous for the individual patient, and costly to the healthcare system [1]. The objective of this study was to determine whether inpatient

Patients who saw an addiction medicine provider in hospital were...

Toxicology, School of Medicine, Washington University in St Louis, Missouri

The opioid epidemic has increased hospital admissions for serious infections related to opioid abuse. Our findings demonstrate that addiction medicine consultation is associated with We performed a retrospective chart review of patients admitted between January 2016 and January 2018 to Barnes-Jewish Hospital, a 1400-bed, academic, tertiary care center in St Louis, Missouri. Electronic medical records (EMRs) of all patients who

32X more likely to receive treatment for opioid use disorder

tions requiring hospitalization.

ing with IDU or OUD (Supplementary Table 1) and ICD-10

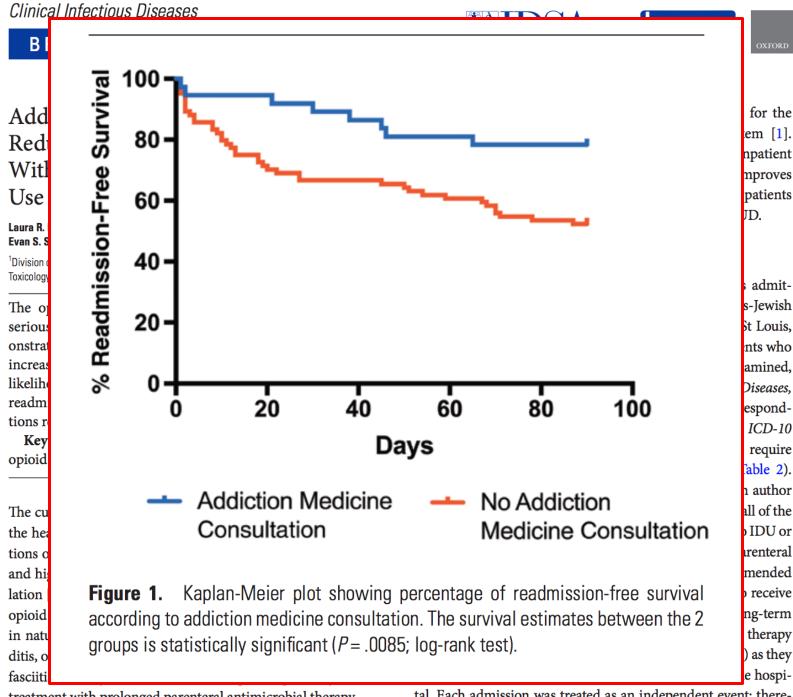
6X more likely to complete antibiotic therapy

The second of th

80% less likely to leave AMA

and higher readmission rates compared with the general population [1–3]. Some of the most serious medical complications of opioid use, particularly injection drug use (IDU), are infectious in nature, including bloodstream infections, infective endocarditis, osteomyelitis, epidural abscess, septic arthritis, necrotizing fasciitis, and myositis [1, 4]. These diagnoses generally warrant treatment with prolonged parenteral antimicrobial therapy.

antimicrobial therapy (defined as >2 weeks) was recommended by the ID consultant; and (3) the patient was not able to receive OPAT. Patients discharged to skilled nursing facilities, long-term care facilities, or able to receive parenteral antimicrobial therapy at dialysis centers were excluded from this review (n = 47) as they were able to receive intravenous antibiotics outside of the hospital. Each admission was treated as an independent event; there-



treatment with prolonged parenteral antimicrobial therapy.

tal. Each admission was treated as an independent event; there-

- NUMBNESS, CHEST PAIN

PALENESS

(LESS COMMON)

- RED PAINFUL NODES (OSLER'S NODES) IN THE PADS OF FINGERS + TOES - LANEWAY LESIONS : RED SKIN SPOTS

- ON PALMS + SOLES OF FEET
- -HEART MURMUR
- WEIGHT LOSS

WHAT ARE THE HIGHEST RISK FACTORS

- -USING INTRAVENOUS DRUGS -- HEART DISEASE
- CHRONIC ABSCESS OR IN FECTION emperimental resources the content of the

IF YOU ARE CONCERNED ABOUT A POSSIBLE INFECTION, ASK YOUR DOCTOR TO LOOK FOR: -ENLARGED SPLEEN .

Programme to the second second

4 3: 2 1 A . .

- -HEART MURMUR
- SPLINTER HEMORRHAGES (POTH'S SPOTS)

WHAT WILL HAPPEN IF !

BECOME INFECTED?

FIRST OF ALL, MOST OF THESE SYMPTOMS ALREADY LISTED WILL OCCUR. YOU WILL REQUIRE LONG TERM INTRAVENOUS ANTIBIOTICS, AND IT IS COMMON FOR THIS TO BE A G WEEK TREATMENT. INITIALLY YOU WILL BE BED-RIDDEN IN THE HOSPITAL, AND RESTRICTED ANY ACTIVITY.

HEART FAILURE IS 'NOT UN COMMON' AND VALVE REPLACEMENT IS, UNFORTUNATELY, "COMMON", REQUIRING YOU TO GET AN OPERATION ON YOUR HEART. IF YOU THINK YOU ARE AT RISK GO TO EMERGENCY IMMEDIATELY-THIS DISEASE CAN BECOME FATAL IN DAYS. IF YOU HAVE SYMPTOMS ALREADY, IT COULD BECOME FATAL WITHIN 24 HOURS.

- L OPITLICATIONS INCLUDE. - CONGESTIVE HEART FAILURE -BLOOD CLOTS OR EMBOLI WHICH TRAVEL TO KIPNEYS, LUNGS, BRAIN OR ABDOMEN CAUSING SEVERE DAMAGE ...

-RAPID OR IRREGULAR HEARTBEAT -SE VERE HEART VALVE DAMAGE,

- STROKE / BRAIN ABSCESS

WHAT CAUSES ENDOCARDITIS WHEN USING INTRAVENOUS DRUGS NER

- JE YOU MAY THINK THAT ALCOHOL

AGAIN. JUST DIRTY SKIN BEING PUSHED INTO YOUR BLOOD STREAM, OR ANY BACTERIA AT ALL, COLLEGE AROUND THE HEART, BUILDS UP,

SWABS ARENT A BIG DEAL-THINK

AND CAUSES AN INFECTION.

JUST SWABBING EVERY TIME YOU INJECT COULD DRAMATICALLY

REDUCE YOUR CHANCE OF

CONTRACTING THIS FATAL DISEASE ALONG WITH OTHER COMPLICATIONS.

PAMPHLET BY AMY COLLINS

HEALTH CENTRAL - General Encyclopedia-

www. healthcentral-com/mhc/too

. endocarditis

INFORMATION TAKEN FROM

REMEMBER, CLEAN NEEDLES+ CLEAN EQUIPMENT IS THE SAFEST + EASIEST WAY TO AVOID THESE PROBLEMS +

COULD SAVE YOUR LIFE.

IF YOU ARE AN IV DRUG USER YOU ARE AT RISK

ENDOCARDITIS YOU COULD BE AT RISK

WHAT IS ENDOCARDITIS?

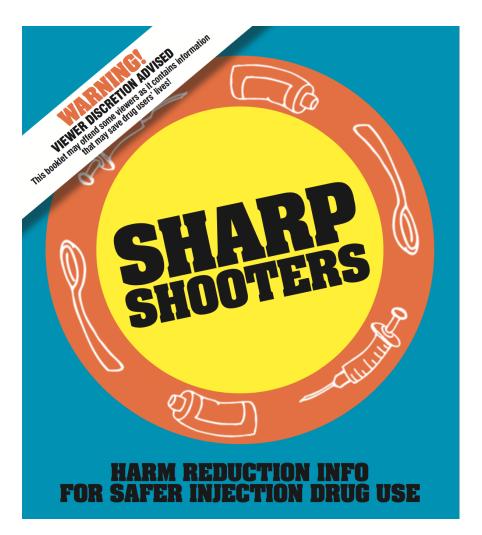
A HEART INFECTION CAUSED BY A BUILD-UP OF BACTERIA IN YOUR HEART, EVEN CAUSED BY FUNGI, VIRUS OR MICROORGANISMS.

WHAT DO I LOOK FOR?

THERE ARE MANY SYMPTOMS OF ENDOCARDITIS. THE MOST SERIOUS, TO WATCH FOR ARE LISTED BELOW, ALONG WITH OTHER, LESS COMMON SYMPTON

- FATIGUE, WEAKNESS, SHORT NESS OF BREATH
- FEVER, CHILLS, NIGHT SWEATS -MUSCLE ACHES + PAINS, SWELLING
- OF FEET, LEGS, ABDOMEN, JOINT PAIN -NAIL ABNORMALITIES: SPLINTER
- HEMORRHAGES UNDER NATLS - ABNORMAL URINE COLOUR
- BLOOD : COUGHED UP OR IN URINE

MORE INSIDE -











Special thanks to: The Original "Sharp Shooters" (you know who you are), Scott F., Frank C., Kelly G., Matt J., Danny W., Butch, Sara, Anne-Marie, Cyndi, Raffi, Dr Tim, Barb & Erin. Thanks, too, to South Riverdale Community Health Centre's COUNTERfit program.

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Contact: www.catie.ca • 1-800-263-1638



Canada's source for HIV and hepatitis C information

CATIE Ordering Centre No: ATI- 70095 (aussi disponible en français, ATI-70096)

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Safer

Arms: Your arms are the safest places to inject. Use different veins every time you inject to help them heal.

Back of hand: The veins in your hands are fragile, so inject slowly. Give these veins extra time to heal.

Try to avoid

Legs: Inject yourself lower in your leg before injecting in places higher on your leg. You could get blood clots. These clots can go to your lungs or heart and cause serious problems.

Feet: The veins in your feet are fragile. Give these places extra time to heal. If you have foot problems, do not inject yourself here.

Breasts: Try not to inject yourself in your breasts. Injecting into your breasts can cause blood clots that can cause pain and swelling.

Dangerous

Wrist: Try not to inject yourself in the wrist because you could hit an artery or nerve. Your wrist is full of veins, arteries and nerves that are very close together.

Neck: Avoid the neck vein because it is close to important arteries. You could die if you hit one of these arteries.

Groin: Avoid injecting into the groin. It is very close to an artery. Hitting this artery is dangerous. If you get a big bruise after you inject here, get medical help right away.

Penis: Avoid injecting into the penis. There is a high chance it could become infected, causing serious problems.



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