Réseau de cancérologie Rossy
Rossy Cancer Network

Impact of Long-term Opioid Use on Healthcare Resource Utilization for Cancer Patients

McGill
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St. Mary's Hospital Center

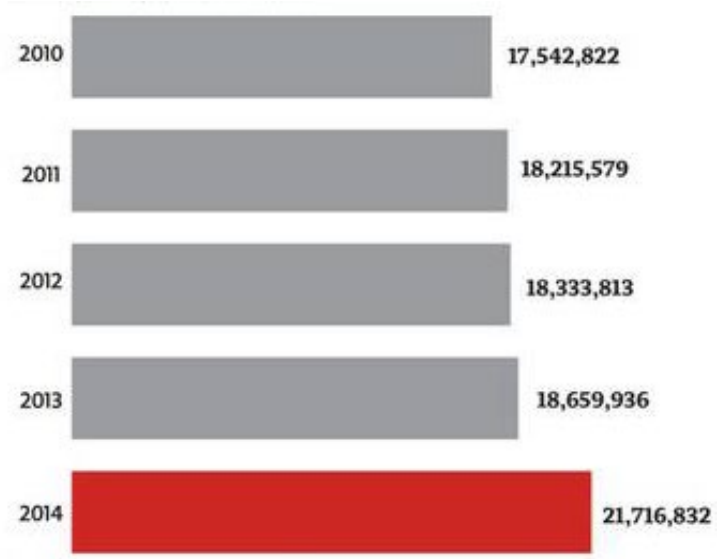
Overall Thesis Objectives

1. Characterize opioid therapy and the rate of long-term use for hospitalized cancer patients in the one-year post-discharge period

2. Identify potential modifiable patient, provider and healthcare system predictors of persistent prescription opioid use

3. Determine whether persistent opioid use is associated with increased patient's healthcare utilization and decreased cancer survival

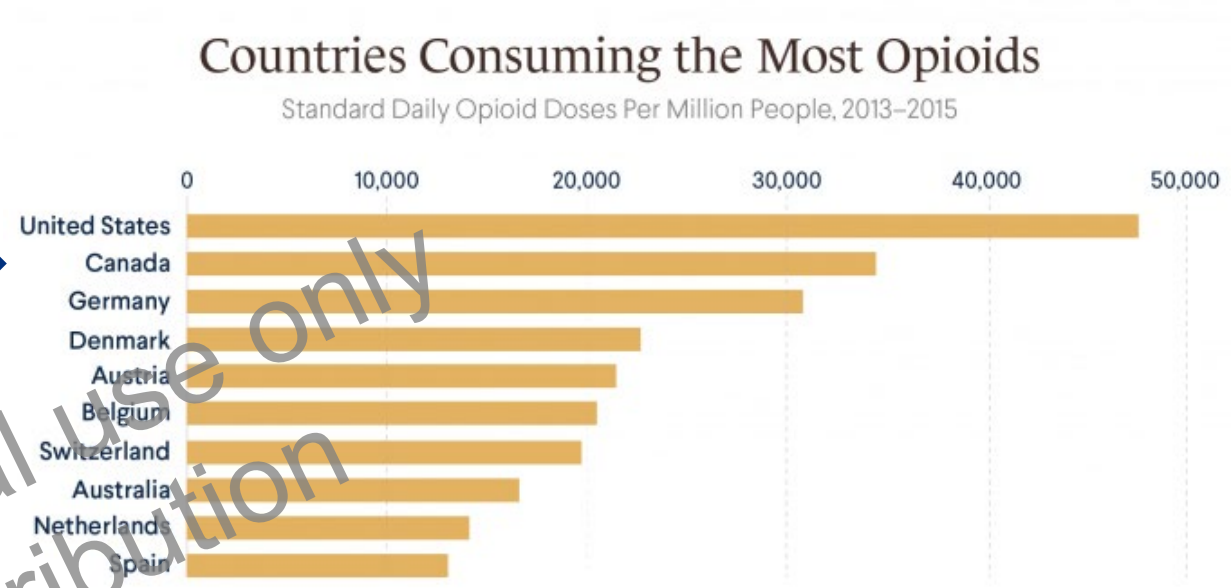
Opioid Consumption in Canada



6.8%

Number of opioid prescriptions in Canada increased between 2012 and 2016

Source: Canadian Institute for Health Information

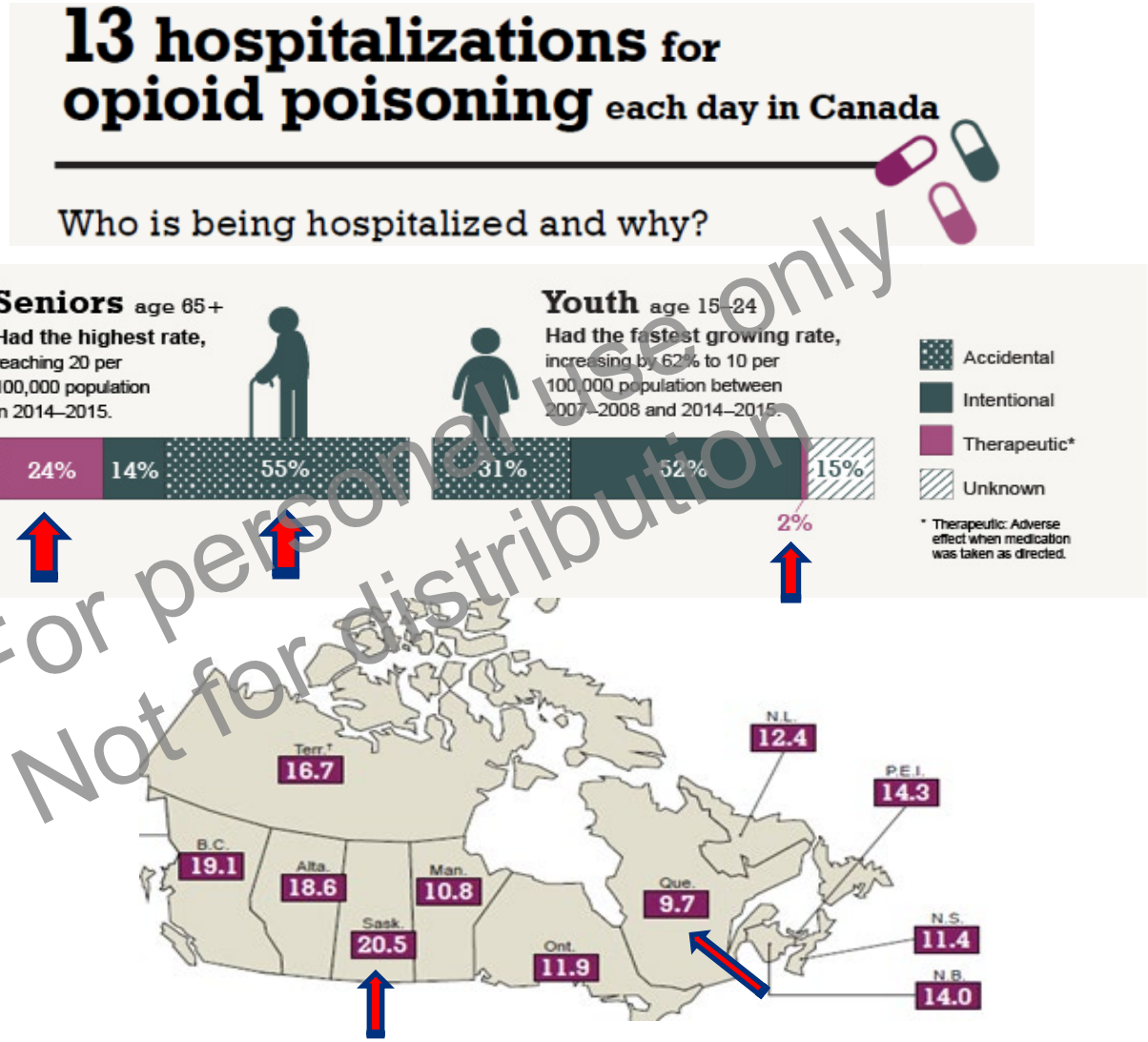


9.7%

Proportion of prescriptions for strong opioids increased in Canada between 2012 and 2016

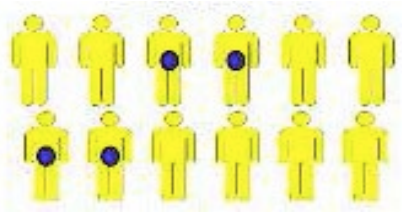
Source: Canadian Institute for Health Information

Opioid Poisonings and Risk of Hospitalizations



Objectives of Preliminary Analyses

1. To describe incidence of opioid use for all patients admitted at two tertiary care hospitals in Montreal (2014 – 2016)
2. To estimate the association between opioid use and risk of adverse health outcomes in the 90-days post discharge

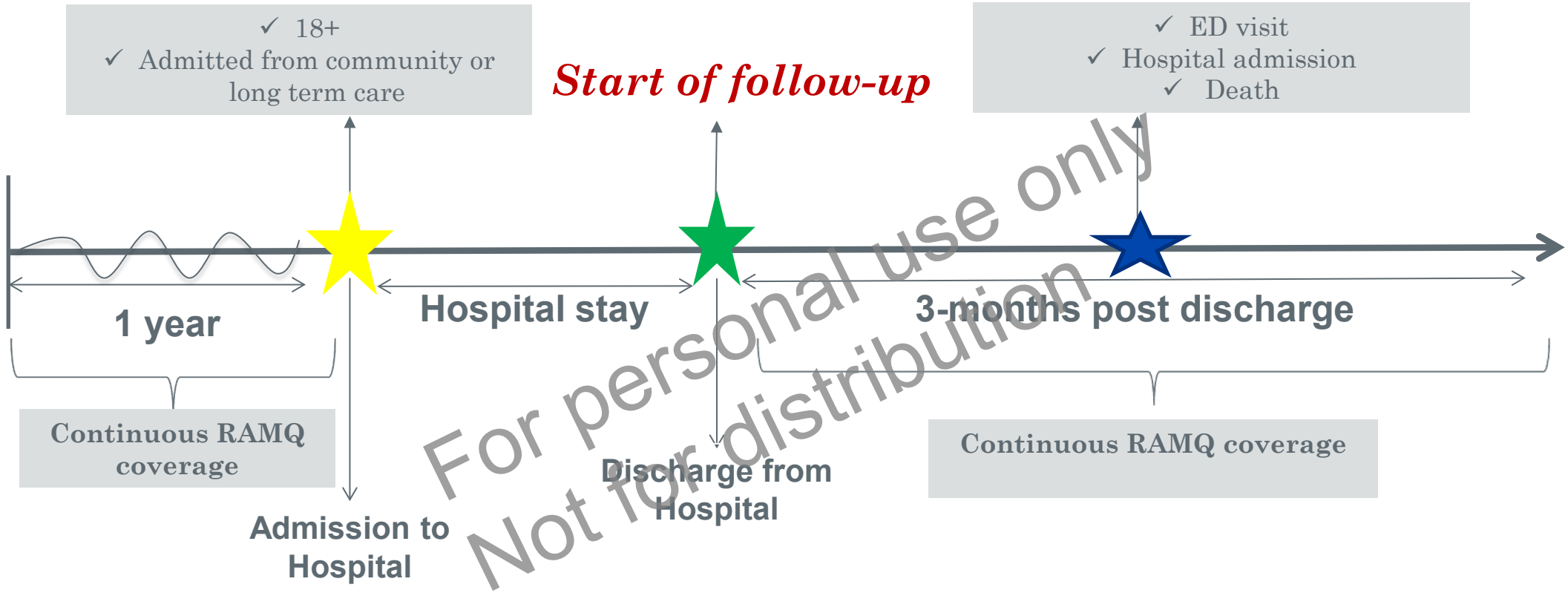


Internal medicine

RCT TRIAL

Thoracic & cardiac surgery

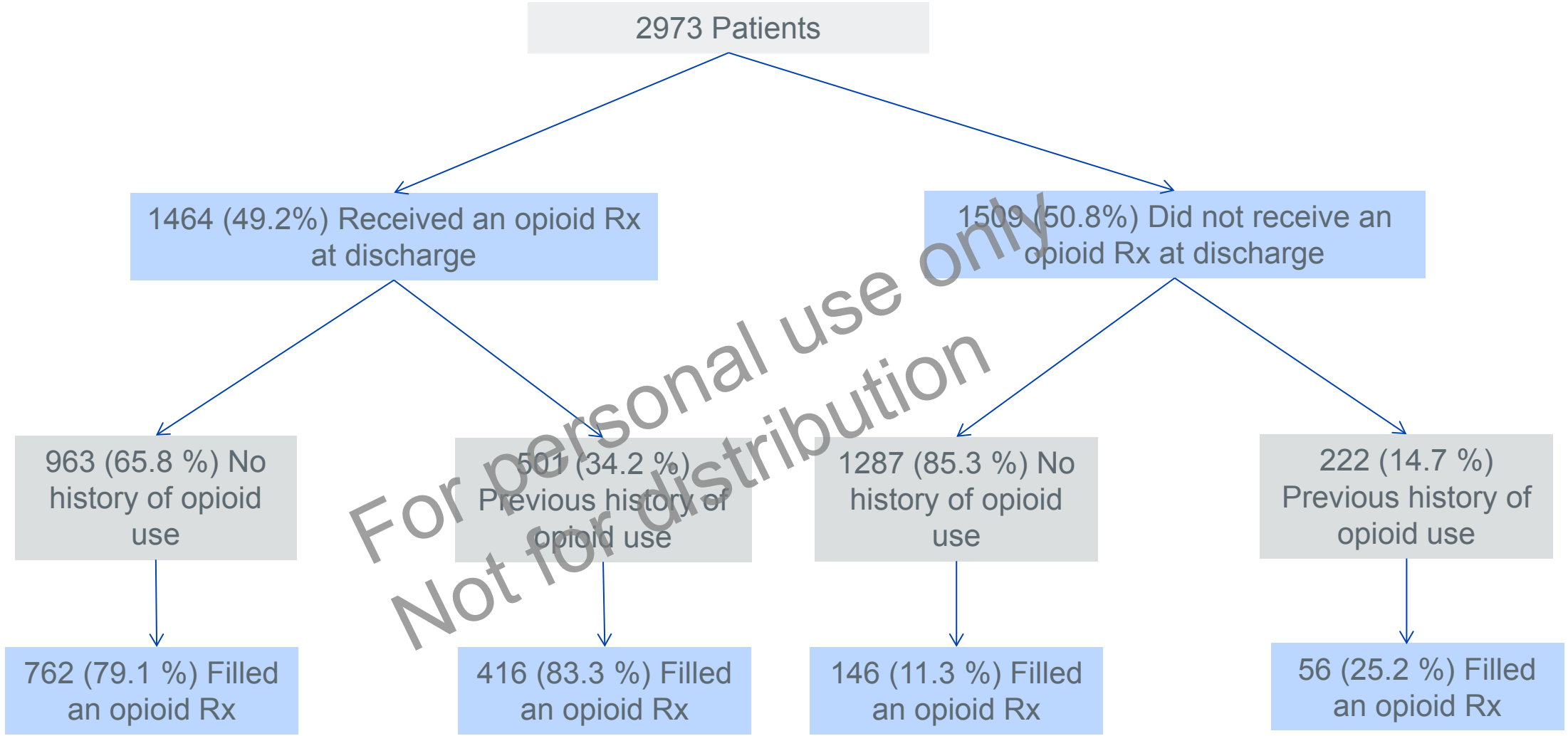
Study Design



Characteristics of Study Population

	Did not Fill an Opioid Rx (n = 1,593)	Filled an Opioid Rx (n = 1,380)
Age at admission Mean (SD)	70.9 (16.2)	67.0 (13.4)
Hospital unit at discharge (n,%) Surgery Internal Medicine	 382 (24.0) 1211 (76.0)	 1007 (73.0) 373 (27.0)
Medication Use		
History of benzodiazepine use (n,%)	310 (19.5)	288 (20.9)
History of opioid use (n,%)	251 (15.8)	472 (34.2)
Opioid Rx at discharge (n,%)	286 (17.9)	1178 (85.4)
Benzodiazepine prescription at discharge (n,%)	307 (19.3)	314 (22.8)
Comorbidities		
Cancer Diagnosis (n,%)	340 (21.3)	576 (41.7)
History of depression and/or psychiatric disorders) (n,%)	371 (23.3)	329 (23.8)
History of substance and/or alcohol abuse (n,%)	127 (7.9)	84 (6.1%)

Opioid Prescriptions and Dispensations 90 days post-discharge

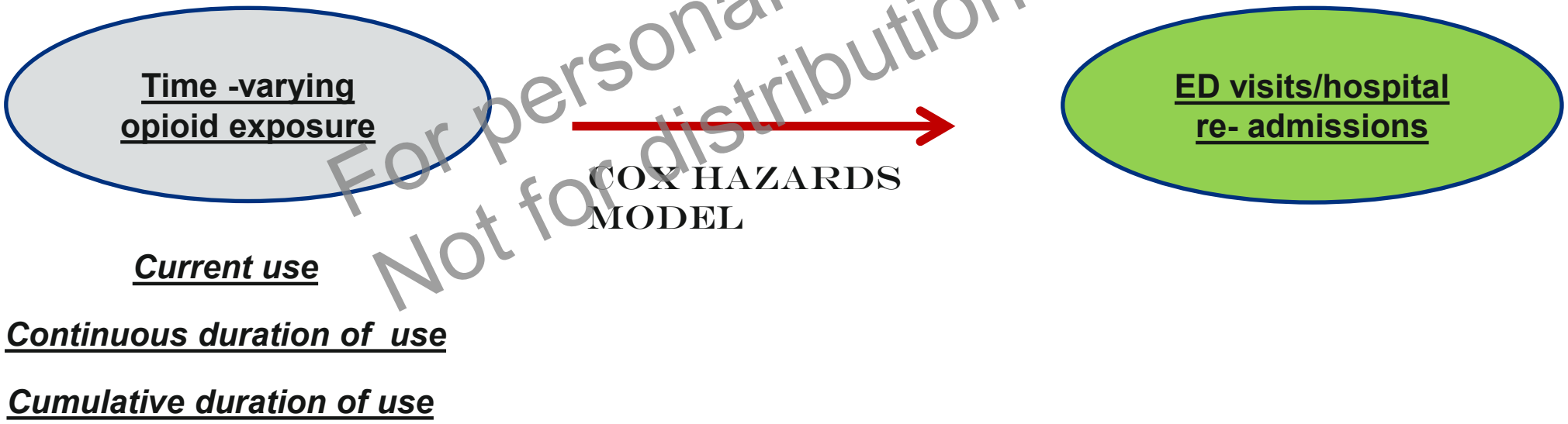


Statistical Analyses

Comorbidities
Cancer
Depression/Substance/
Alcohol Abuse

Medication Use
Anti-psychotics,
Benzodiazepines, Opioids

Health care utilization
Hospitalizations, ED visits,
Number of Pharmacies,
Prescribers



Association between Opioid Use and ED visits

	Events	Crude HR (95% CI)	Adjusted HR (95% CI)
Current Use			
Non use	1287	[Ref]	[Ref]
Use	300	1.13 (0.99 – 1.28)	1.19 (1.03 – 1.39)
Continuous Duration Use			
Non use	1287	[Ref]	[Ref]
<30 days	269	1.05 (0.92 – 1.21)	1.15 (0.99 – 1.35)
30-60 days	22	1.82 (1.19 – 2.79)	1.44 (0.93 – 2.24)
>60 days	9	3.52 (1.80 – 6.87)	2.63 (1.34 – 5.20)
Cumulative Duration Use			
Non use	951	[Ref]	[Ref]
<30 days	577	0.90 (0.81 – 0.99)	1.15 (0.98 – 1.33)
30-60 days	43	1.66 (1.22 - 2.28)	1.61 (1.15 – 2.26)
>60 days	16	1.88 (1.11 - 3.18)	1.74 (1.02 – 2.99)

Conclusions

- Majority of patients using opioids had a cancer diagnosis and were hospitalized for surgery

- Increased risk of ED visits or hospitalizations when comparing opioid use versus no use
  - Increased risk with longer duration of use

- Potential policy implication: re-assess duration of treatment with opioid use
  - Increase access to pain clinics
  - Access to publicly funded physiotherapy services

Future Directions

Study Population: patients with a cancer diagnosis

- Characterise opioid use patterns
- Identify provider & organizational characteristics associated with risk of long-term opioid use
- Quantify the impact of subsequent opioid-related adverse events on patient's healthcare utilization and cancer survival.

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Thank you!

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