

Psychotropic Drug Use at the Health Sciences Centre and St. Clare's Hospital

Choosing Wisely Canada Recommendations

1. Don't initiate or escalate opioid doses for non-cancer pain before optimizing non-opioid pharmacotherapy and non-pharmacological therapy.
2. Don't use antipsychotics as first choice to treat behavioural and psychological symptoms of dementia.
3. Don't routinely prescribe benzodiazepines or other sedative-hypnotics for promotion of sleep without first a trial of non-pharmacological interventions.
4. Don't use benzodiazepines or other sedative-hypnotics in older adults as first choice for insomnia, agitation, or delirium.

Practice Points

1. Opioids are not more effective than other analgesics for certain chronic pain conditions, and the risks of opioid treatment support the use of non-opioid therapy.
2. Use of antipsychotics should be limited to patients who pose an imminent threat to themselves or others where non-pharmacological measures have failed.
3. Use of benzodiazepines should be reserved for alcohol withdrawal symptoms/delirium tremens or severe generalized anxiety disorder that is unresponsive to other therapies.

Data

This was obtained from electronic drug repository, Pyxis, used in the St. John's acute care hospitals for the calendar year 2020.

The COVID-19 epidemic started 16 Mar 2020. The monthly Defined Daily Dose (DDD)/1,000 patient days for oral and IV use of opioids, antipsychotics, and benzodiazepines (excluding psychiatry) was calculated for the Health Science Centre (HSC) and St. Clare's Hospital (SC).

Results

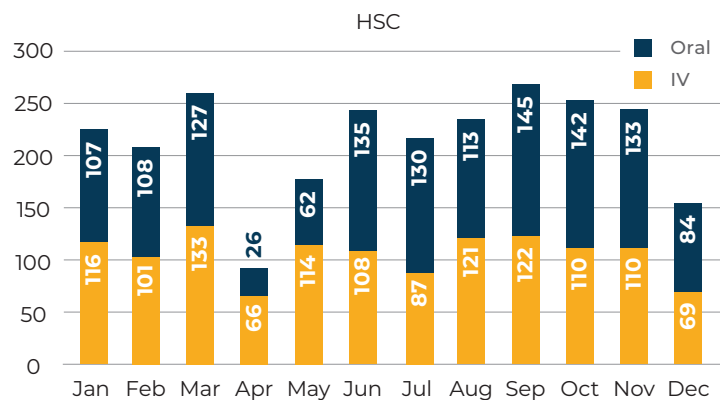


Figure 1A. DDD/1,000 Patient Days of Intravenous and Oral Opioids at the HSC Each Month, 2020

- The average monthly DDD/1,000 patient days for oral opioids for 2020 at the HSC was 109 and for intravenous opioids was 105. The ratio of oral:IV use was 1.05.

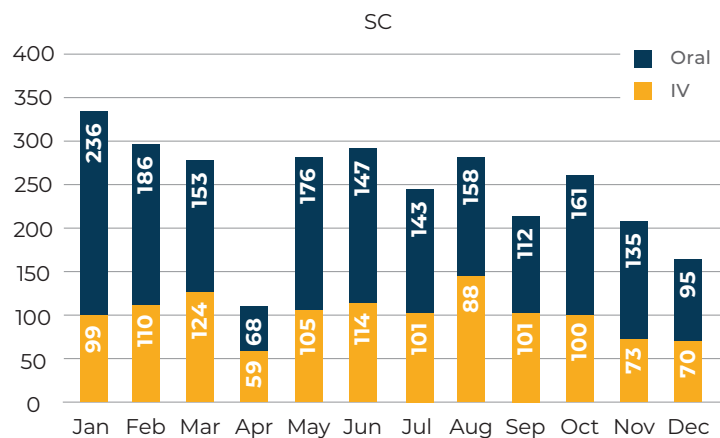


Figure 1B. DDD/1,000 Patient Days of Intravenous and Oral Opioids at St. Clare's Hospital Each Month, 2020

- The average monthly DDD/1,000 patient days for oral opioids at St Clare's was 147 and for intravenous opioids was 95. The ratio of oral:IV use was 1.55.
- Opioid use decreased in Apr 2020 in both hospitals at the start of COVID-19 epidemic.

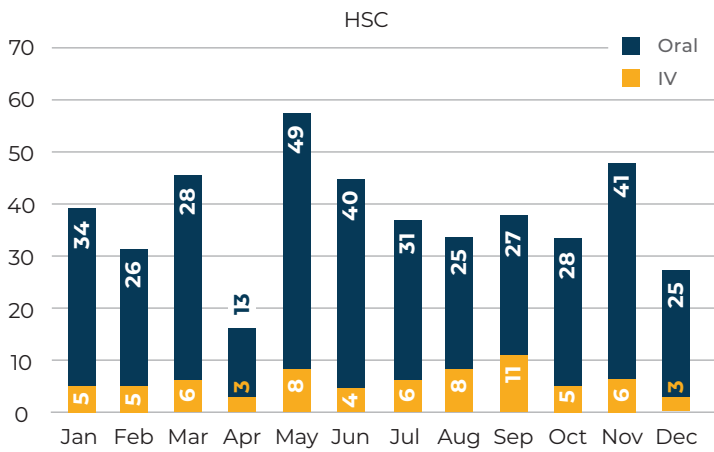


Figure 2A. DDD/1,000 Patient Days of Intravenous and Oral Antipsychotics at the HSC Each Month, 2020

- The average monthly DDD/1,000 patient days for oral antipsychotics at the HSC was 31 and for IV antipsychotics was 6. The ratio of oral:IV use was 5.4.

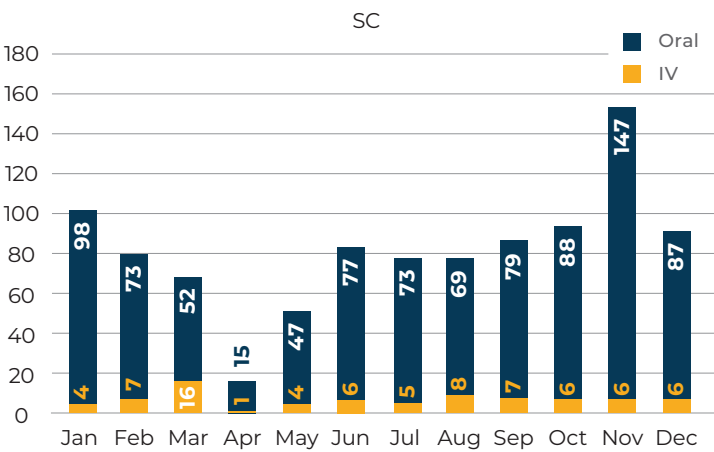


Figure 2B. DDD/1,000 Patient Days of Intravenous and Oral Antipsychotics at St. Clare's Hospital Each Month, 2020

- The average monthly DDD/1,000 patient days for oral antipsychotics at St. Clare's Hospital was 75 and for IV antipsychotics was 6. The ratio of oral:IV use was 11.9.
- The DDD/1,000 patient days at the HSC for both intravenous and oral antipsychotics fell during Apr, the first month of the COVID-19 epidemic, in both hospitals.

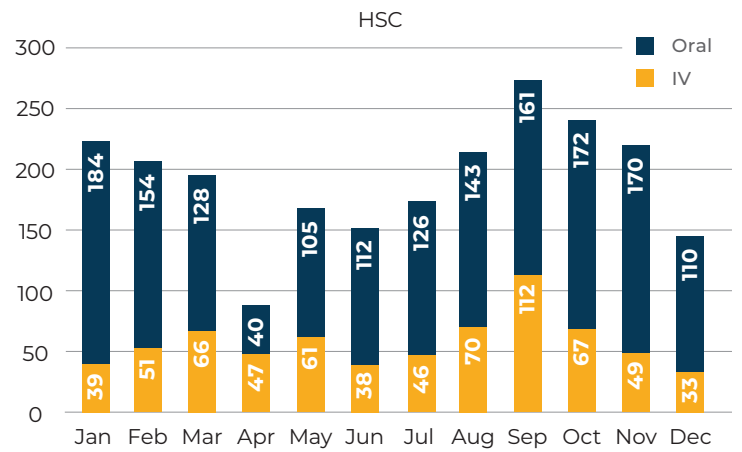


Figure 3A. DDD/1,000 Patient Days of Oral and IV Benzodiazepines Each Month at the HSC, 2020

- The average monthly DDD/1,000 patient days for oral benzodiazepines at the HSC was 134 and for IV was 57. The ratio of oral:IV use was 2.4.

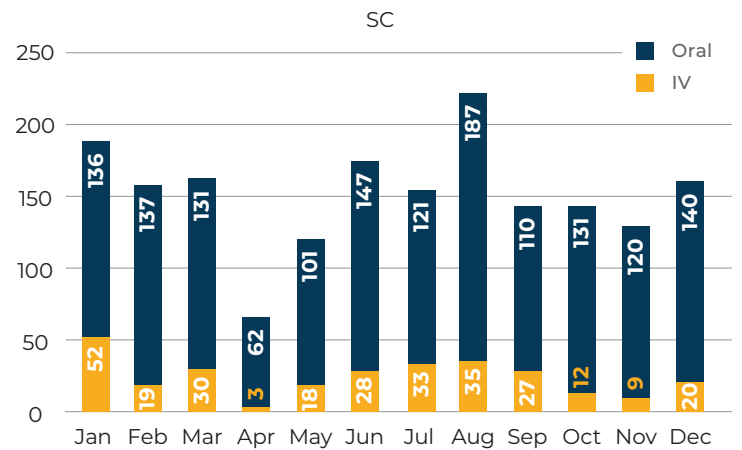


Figure 3B. DDD/1,000 Patient Days of Oral and IV Benzodiazepines at St. Clare's Hospital Each Month, 2020

- The average monthly DDD/1,000 patient days for oral benzodiazepines at St. Clare's was 127 and for IV 24. The ratio of oral:IV use was 5.3.
- The use of benzodiazepines fell in both hospitals in Apr 2020 at the start of COVID-19.

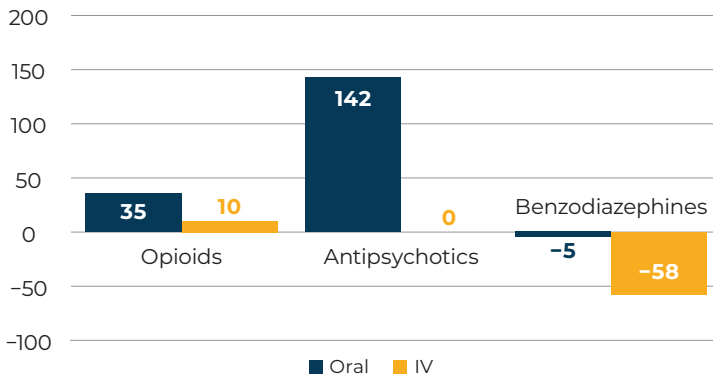


Figure 4. Percent Differences in the Average Monthly DDD/1,000 Patient Days for Oral and IV Opioids, Antipsychotics, and Benzodiazepines at St. Clare's Hospital Compared to the HSC

- The use of opioids and antipsychotics was higher at St. Clare's, but benzodiazepine use was lower compared to the HSC.

Conclusions

1. This data, using DDD/1,000 patient days, permits a comparison of opioid and psychotropic drugs at HSC and St. Clare's Hospital. It also serves as a baseline to assess the impact of future interventions to optimize drug use.
2. Use of oral opioids was higher at St. Clare's Hospital than at the HSC. IV use was nearly as high as oral use at HSC and similar to that at St. Clare's.
3. Use of antipsychotics was higher at St. Clare's Hospital than at the HSC. Antipsychotics were usually administered orally.
4. Use of IV benzodiazepines was 58% lower at St. Clare's Hospital compared to HSC.
5. Use of all three drugs fell in both hospitals during the first month of COVID-19.