Critical Drug Shortages

Several injectable products from Sandoz Canada are in short supply. While we will continue to receive injectable products, we will not receive enough to meet our current utilization. The following injectables are considered to be at critical levels:

- Amiodarone
- Hydromorphone (and subsequently morphine)
- Norepinephrine
- Midazolam
- Fentanyl
- Rocuronium
- Sufentanil

We are currently monitoring our supply of medications and gathering a provincial list of current stock on hand and list of alternatives. In order to conserve our stock to ensure it is available for those patients where alternatives do not exist, the following is recommended.

**Amiodarone**
- Consider using metoprolol, if possible, particularly in the emergency department in order to preserve amiodarone for critical care
- Consider discontinuing amiodarone infusions as early as possible in critical care
- Consider enteral amiodarone if possible

**Norepinephrine**
- Alternatives include vasopressin, phenylephrine, dopamine, and epinephrine
- It is being investigated if it would minimize waste by recommending that adult critical care use a 32 mcg/mL standard concentration instead of a 64 mcg/mL concentration; however, the programmable pumps will need to be changed and staff education provided to safety accommodate this change in practice. Further information will follow.

**Fentanyl & Sufentanil**
- Preserve use of these products for high dose opioid anesthesia such as cardiac surgery
- Consider local anesthetic only for neuraxial anesthesia i.e., consider rationale and necessity of narcotic on a case basis
- In the operating room for routine surgeries and in critical care, where appropriate consider remifentanil with the understanding that remifentanil is a potent, ultra-short acting narcotic reported to produce tachyphylaxis, increased risk of apnea in intubated patients, and intense pruritus, usually around the face
- Remifentanil as a replacement for fentanyl and sufentanil will be restricted to the ORs and to the ICUs
- Consider supplementing anesthesia with ketamine in the OR and in critical care to preserve the use of fentanyl/sufentanil
- Consider other enteral opioids

**Hydromorphone (and morphine)**
- Switch to the oral route if at all possible
- Pharmacy may be able to manufacturer hydromorphone and morphine from sterile powder to supplement supplies
- Pediatrics will consider alternatives to managing pain such as local anesthetics (ropivacaine and bupivacaine) if appropriate

**Midazolam**
- Preserve stock for critical care
- Alternatives include ketamine and lorazepam (intermittent IV or enteral route) although preservative in lorazepam formulation limits use in long-term IV infusion

**Rocuronium**
- Alternatives include cisatracurium and pancuronium

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**Action:** Please post this notice in your area and ensure all staff is informed.

**Contact:** Site Pharmacy Department for any questions or concerns.

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