

MEMO

DATE: 10/12/2021

TO: All Saskatchewan Pediatricians, Pediatric Intensivists, and Neonatologists

FROM: SK SMART Pump Program, Clinical Standards and Professional Practice

RE: Prescribing Implications with Medfusion 4000 SMART Pump Integration

The SK SMART Pump Program is pleased to announce that we will be integrating a small volume syringe infusion pump into all areas that care for pediatric or neonatal patients, within the province.

The pump is called a Medfusion 4000 – it has the capacity to safely infuse smaller volumes as with greater accuracy for the child. The Medfusion 4000 includes Drug Error Reduction Software (DERS) and will provide a drug library, similar to the large volume PLUM 360 pumps, to help support safer infusion practices in our pediatric population. DERS allows us to create limits to pump programming to dramatically reduce the risk of infusion errors and harm to patients.

In the spirit of minimizing risk of drug errors, complying with the Institute of Safe Medicine Practices (ISMP) and other guideline-based recommendations, aligning with accreditation standards, and providing standardization across the Saskatchewan Health Authority as well as the large volume PLUM 360 infusion pumps, the following changes have been made. The units of drug delivery must align with the units in which the medication is prescribed. ***As such, there will likely be some prescribing practice changes that you will need to be aware of.*** Key examples include:

- Morphine continuous infusions: To be prescribed and delivered in **mcg/kg/hour**
- Propofol continuous infusions: To be prescribed and delivered in **mcg/kg/min**
- Rocuronium continuous infusions: To be prescribed and delivered in **mcg/kg/min**

There are likely other prescribing implications for you. Please be aware that the current SK SMART Pump Parenteral Manual, found on the [SK SMART Pump Home Page](#) will house all the new monographs with evidence recommended prescribing practices. There will no longer be separate adult and pediatric monographs. All information has been combined to create one monograph for each medication. The updated monographs will be “live” on the SK SMART Pump Home Page on Nov. 1, 2021 with integration of the new pumps.

Please note, the new pumps are only programmable to the new prescribing practices. Nursing staff will NOT be able to program alternative prescribing or alternate small volume infusion pumps. This change in practice does provide significant error reduction which means our patients are receiving safer care.

Roll out of the new pumps will occur starting November, 2021 at JPCH. Regina sites will follow in mid-November, with Prince Albert following in early December. All other areas can expect roll out in early 2022.

Safety | Accountability | Respect | Collaboration | Compassion

With a commitment to a philosophy of Patient and Family Centred Care

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If you would like any further information, please contact the SK SMART Pump Program at
SaskSmartPumpRegina@saskhealthauthority.ca or by calling 306-766-3572

Your cooperation and attention to safer infusion practices is much appreciated.



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