One Person One Record – Clinical Information System (OPOR-CIS): Medication-Related Clinical Decision Supports

This short guide is intended to provide information on the **Medication-Related Clinical Decision Supports** with the One Person One Record Clinical Information System (OPOR-CIS).

Clinically appropriate supports in the OPOR-CIS

The medication management section of the OPOR-CIS is focused on improving patients' safety, while also improving efficiencies for the healthcare team members. Supporting providers in making confident and clinically sound medication choices, with appropriate and timely Clinical Decision Supports is key to delivering medications safely.

Clinical Decision Support is a broad concept that covers functionality such as drug/drug interaction checking, allergy alerts, duplicate therapies alert, dose range checking, and the dose calculator, all driven from **Cerner Multum**. This document will briefly cover these key pieces of functionality.

Alert fatigue refers to the phenomenon where clinicians become overwhelmed or desensitized by the sheer volume of alerts and notifications in the CIS. When the frequency of alerts is too high or the information provided is not sufficiently relevant or urgent, healthcare providers may start to ignore or overlook these alerts. The impact is decreased clinician satisfaction with the system, decreased trust in the system and ultimately risks to patient safety.

Decisions regarding the level of alerting will be made by the **OPOR Clinical Decision Support Working Group**. This group is comprised of nursing, pharmacy and physician experts from across the province who will oversee and align alerting and the appropriateness of Clinical Decision Supports.

Drug Interactions

If an order is placed for a medication that interacts with a medication currently on the patient's profile, an **interruptive alert** will appear at the time of signing. Within this alert, the provider can find details of the interaction, including the **severity and reference material** that provides more detail about the drug interaction.

The provider has several options at this point: they can choose to **cancel the order** and select an alternate therapy or to proceed with ordering this combination of medications by selecting an **Override Reason** in the drop-down box. For example, they may select "Patient already tolerating" and proceed with placing the order.

Notably, at the time of verification, the pharmacist will also see this alert and would use their clinical judgement to determine if the provider should be contacted for a discussion.

Decisions on the level of alerting, for example, whether providers are alerted for minor medication interactions or only major contraindications, are guided by the **Clinical Decision Support Working Group.**

Allergy Interactions

All entered medications are checked against the patient's documented allergies. In the example below, Cephalexin was ordered and once the order was signed off – an alert to indicate a drug allergy – Penicillin - is displayed.

By clicking on the medication hyperlink – the system will display reference text on the reaction.
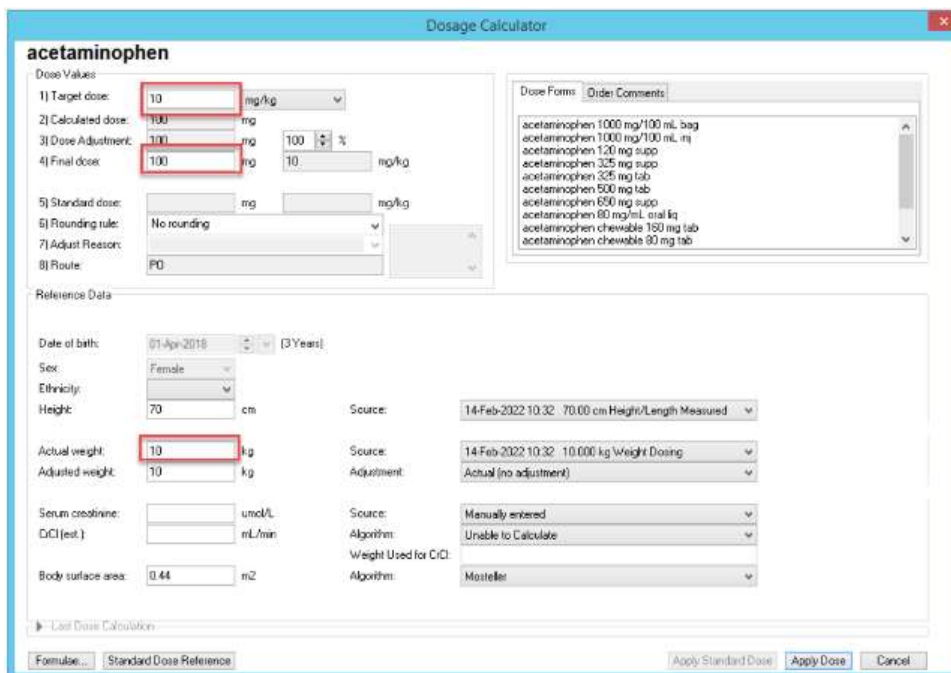
Dose Range Checking

Dose Range Checking (DRC) in the OPOR-CIS is a system-automated method of comparing doses for medication orders against pre-established safe ranges for the medication. Medication doses can be evaluated against criteria specific to patient age, weight, body surface area (BSA), postmenstrual age (PMA), hepatic function, creatine clearance (CrCl), condition, frequency, and route of administration.

Dose Calculator Functionality

The Dose Calculator functionality in the OPOR-CIS appears when a weight-based order sentence is selected. By clicking on the dosage calculator icon 🔲 , the **Dosage Calculator** will launch. Where appropriate, the system will also round the calculated dose to match the available dosage forms/strengths for the medication.

If you are satisfied with the dose calculated by the system, select "Apply Dose" on the bottom right corner of the calculator.

Dose Banding

Certain medications have approved standardized dosing parameters known as **dose banding**.

For medications with approved standardized dosing, when the calculated dose falls within a specific range of doses, a predetermined standard dose is applied.

Therefore, instead of clicking 'Apply Dose' in the dosing calculator, click 'Apply Standard Dose' instead.

A clinical example would be a calculated weight-based dose of vancomycin 980mg would be dose banded and dispensed as 1000mg.

Looking to find more information on Medication-related Clinical Decision Supports within the OPOR-CIS?

Demonstration videos are available on the **opor.nshealth.ca** website.

Please contact **CMIO@nshealth.ca** for any questions about the OPOR-CIS and **how you can be part of the design process to ensure it meets your clinical needs.**

While this guide provides a brief overview, the **OPOR Education and Learning team** will prepare you with detailed content and experience leading up to the CIS implementation.

V1 (05 February 2024)