Digital Health Drug Repository (DHDR): Guide for Clinical Use

September 01, 2022
v2.0

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Purpose and Audience

This guide is intended for use by health care providers (HCPs) who consume DHDR information, DHDR consuming (viewing) solution providers and HCP organizations with authorized access to the DHDR.

This guide provides information for end users to appropriately interpret and use the information provided via the DHDR and meets the Ministry of Health's mandatory training requirements for the use of the DHDR.

DHDR consuming solution providers and organizations are advised to use the information provided within this guide in preparation of solution/organization-specific education and on-boarding artifacts. Content cannot be modified without approval from Ontario Health.

What is the Digital Health Drug Repository (DHDR)?

The Digital Health Drug Repository (DHDR) is a provincial information source of publicly funded drug and pharmacy services and all monitored drugs (regardless of payor). COVID-19 vaccination information from COVax$_{ON}$ (the ministry's provincial solution for COVID-19 vaccination information) is also available through the DHDR.

Information in the DHDR is derived from claims reimbursement submissions from pharmacists to the Ministry of Health and contains information for Ontarians where the Ontario Health Number was used in the provision of the drug or pharmacy service. Similarly, COVax$_{ON}$ information is available only for Ontarians who provided Ontario Health Number at time of vaccination and consented to the collection of their vaccination data in COVax$_{ON}$.

The DHDR includes information on:

- **Publicly funded drugs** (including those listed on the Formulary or approved through the Exceptional Access Program) dispensed in Ontario and paid for by the **Ontario Drug Benefit** program

- Most publicly funded drugs dispensed in Ontario and eligible under **Special Drugs Program**

- Drugs dispensed in Ontario to households pending program eligibility with **Trillium Drug Program**

- **Professional pharmacy services** provided by a pharmacist in Ontario and paid for by the ministry (e.g. MedsCheck Program medication reviews). This includes COVID-19 tests completed at a pharmacy.

- **Monitored drugs** (narcotics and controlled substances), regardless of payor, when the approved identification used was a valid Ontario Health Number, including monitored drugs reimbursed by private insurance or cash

- **COVID-19 vaccination information** documented in COVax$_{ON}$, which includes information on all COVID-19 vaccines administered in the province, where client provided Ontario Health Number and consent to data collection.

Refer to [Information Available to Health Care Providers through the Digital Health Drug Repository](#) for more information.

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How much historical information is available in DHDR?

1. **Publicly funded drug and pharmacy service information**

    - Reflects information the dispensing pharmacy submits to the Ministry of Health for reimbursement

    - Includes over 10 years of information about publicly funded drugs (including monitored drugs and COVID-19 information) and publicly funded pharmacy services

2. **Narcotics Monitoring System (NMS) information**

    - Includes over 8 years of information about monitored drugs (narcotics and controlled substances) dispensed in Ontario regardless of payor

3. **COVID-19 Vaccination (COVax$_{ON}$) information (made available via DHDR)**

    - Includes recorded COVID-19 vaccinations from the start of vaccine administration in the province

What are the Clinical Limitations of DHDR Information?

The DHDR provides a foundation for the "Best Possible Medication History" to be validated and further developed with the patient or the patient's Substitute Decision Maker. This information is advisory only since it is derived from claims submissions and may not include all the current medications a patient is utilizing at any time or all the pharmacy services that a patient has received.

When reviewing DHDR information, the user is advised to consider the following:

- The information should be discussed and confirmed with the patient or other source(s)

- The patient may not have picked up their medications (see definition of Dispensed Date) or may not be taking them as prescribed

- The patient may be taking other medications (e.g. over-the-counter or privately-paid medications (other than narcotics and controlled substances)

- The DHDR does not include hospital-dispensed medications

- It does not reflect details such as:
    - whether a prescription is new or a refill

    - changes to drug therapy (e.g., discontinued, dosage change)

    - current use of medication

    - instructions for use (e.g., frequency)

The information is considered advisory and is not intended to replace sound clinical judgment. Contact the patient, dispensing pharmacy or prescriber for additional information or clarification.

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Important DHDR Term Descriptions

Dispensed Date: date when the pharmacy processed the payment claim for the dispensed medication or pharmacy service. This date does not necessarily reflect the actual date that the recipient picked up the medication or received the pharmacy service, nor that the patient picked up the medication

Strength: strength of the prescription drug dispensed, amount of active ingredient in the drug; for topical and liquid medication it may be shown as a percentage or ratio

Quantity: quantity of prescription drug dispensed; may be the number of items dispensed, or, for topical and liquid medication (e.g., Methadone) it may refer to dose, total volume or volume of drug concentrate

Estimated Days Supply: estimated days of treatment based on the directions for use on the prescription, and/or the pharmacist's judgment on usage; estimating usage accurately may not be possible for some prescriptions (e.g., PRN)

Medical Condition/Reason for Use: Available for Limited Use products only. Indicates prescriber's designation of the medical condition for which the patient is being treated.

Key Interpretation Notes

Dispensed Date	Generic Name	Brand Name	Strength	Form	Quantity	Est. Days Supply	Pharmacy	Prescriber
27 Feb 2016	VERAPAMIL HCL	Apo-Verap SR	240mg	LA TAB	30	30	Good Life Pharmacy 416-539-5532	Newton, Isaac
20 Feb 2016	METOPROLOL TARTRATE	Apo-Metoprolol	50mg	TAB	90	30	New Morning Pharmacy 416-882-7722	Murray, Sam
10 Jan 2016	MedsCheck Annual	MedsCheck			1	1	Good Life Pharmacy 416-539-5532	Smith, John

Figure 1 Mockup of Medication records (actual display may be different)

1. Use caution extrapolating the **frequency** from the Quantity and Estimated Days Supply
   - Based on the example above, 90 tablets of Metoprolol 50 mg was filled for an estimated 30 days supply. (Quantity / Estimated Days Supply) = 3 tablets per day. The instructions may have been 75 mg (1.5 tablets) twice a day, 50 mg (1 tablet) three times a day or another variation. Estimated Days Supply may not be accurately estimated, further compounding the problem

2. The DHDR does not indicate how a prescriber intended current use of a medication.
   - The DHDR does not indicate how a prescriber intended current use of a medication. The patient may have been instructed to take Metoprolol and Verapamil together, stop one and continue the other, or stop both

3. Changes to medication therapy are not known
   - The patient may have been given alternate dosing instructions (e.g., to decrease the Metoprolol dose to 25 mg (0.5 tablet) three times a day)

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4. The DHDR reflects historical records of drug and pharmacy service information.
   - There is no functionality for medications to be marked as discontinued, placed on hold, or to record adverse events or allergies. It cannot be assumed from the appearance of a record that a patient was successfully treated or can tolerate a specific medication.

COVAX$_{ON}$ information available in the DHDR

COVID-19 vaccination information from COVax$_{ON}$ (the ministry's provincial solution for COVID-19 vaccination information) is available only for Ontarians who provided an Ontario Health Number at time of vaccination and consented to the collection of their vaccination data in COVax$_{ON}$.

COVID-19 vaccine information displays as a drug not as a pharmacy service (unlike the flu vaccine and COVID-19 testing information when administered at a pharmacy). COVID-19 vaccination information displays as below.

DHDR Data Field	COVID-19 Vaccine Description
DIN/PIN	Drug Identification Number (DIN) of the vaccine
Brand Name	Brand name or trade name of vaccine administered
Generic Name	Generic name of vaccine administered[1]
Strength	Strength of vaccine administered
Dosage Form	Dosage form of vaccine administered
Quantity	Quantity of vaccine administered
Dispense Date	Date the vaccine was administered
Prescriber ID	License/registration number of the health care provider who administered the vaccine (e.g., physician or pharmacist)
Prescriber Issuing College	Identifies the registration authority (i.e. regulatory college) which issued the license/registration number to the health care provider who administered the vaccine
Prescriber Name	Name of the health care provider who administered the vaccine[2]
Prescriber Phone Number	Phone number of the health care provider who administered the vaccine[2]

[1] Source for DIN, brand name and generic name as assigned by Health Canada

[2] Available when administered by health care providers licensed by College of Nurses of Ontario, College of Physicians & Surgeons of Ontario, Ontario College of Pharmacists, College of Midwives of Ontario

Availability of COVID-19 Vaccination Information

Consent

At the time of vaccination, if a patient does not provide consent to share their information, the COVID-19 vaccination information is not entered into COVax$_{ON}$ and therefore the information is not available via the DHDR. In this case, even if a temporary override is completed on a consent directive in the DHDR,

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COVID-19 vaccination information is not accessible. HCPs are advised to seek confirmation from the patient when possible.

No Health Card Number
A patient's record is not available via the DHDR if they did not provide an Ontario Health Number at the time of vaccination. Patients may contact their public health unit or the location where the vaccine was administered to request the Ontario Health Number to be added to their vaccine record.

COVax$_{ON}$ Information Temporarily Not Available
On occasion, COVax$_{ON}$ records may not be retrieved by the DHDR.   The absence of vaccine information does not necessarily mean the patient has not received a vaccination. Performing a refresh may result in the successful retrieval and display of the information. See viewing solution guides for the messaging that will display when this occurs.

DHDR Consent Override Requirements

A patient may block access to their drugs and pharmacy services information in the DHDR. This will block COVID-19 vaccination information even if the patient provided consent at the time of vaccination.

A health care provider (HCP) may perform a temporary override of a consent directive. This allows temporary access to all available drugs and pharmacy services information in the DHDR. Specific requirements for obtaining patient consent and signature must be met as outlined.

Prior to unblocking a consent directive, the health care provider is required to obtain express consent from the patient or substitute decision maker (SDM):
1. Inform:
   o the reason for overriding consent
   o the override will apply to any other information or portlet where a block has been applied
   o they may refuse to permit the override
   o Information will be available for four hours to any other authorized health care providers at the organization where the override was performed
2. Print "Temporary Unblocking of Access to Your Drug and Pharmacy Service Information" form and obtain signature from the patient/SDM
3. Retain the signed consent form as part of the patient record

Note: The Risk of Harm option is not permitted for consent overrides of DHDR information

Accessing the DHDR

DHDR is available to authorized users through provincial clinical viewers (ConnectingOntarioClinicalViewer and ClinicalConnect™), electronic medical record systems (EMRs) and other health information systems where enabled.   See solution-specific guides for how to access the DHDR.

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Prior to accessing, health care providers must complete DHDR training to ensure:

1) Understanding of information available in the DHDR
2) Clinical limitations of use
3) Consent override requirements

This guide meets all training requirements.

Where to Get More Information

Patients:

- Questions and Answers and Forms at [MyDrugInfo – Public Information](#)

- ServiceOntario INFOline at 1-800-291-1405 (TTY 1-800-387-5559)

Health Care Providers:

- Questions and Answers, Forms and Communication Materials at
    - [MyDrugInfo-Health Care Professionals](#)
    - [Ontario Health – Dispensed Medications](#)
    - [Ontario Health - Dispensed Medications – Client Support](#)
    - [EHR Health Care Provider Guide](#)
    - [DHDR Site Support Guide](#)
- Contact Ontario Health OH-DS_servicedesk@ontariohealth.ca | 1-866-250-1554

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Appendix A: Drug Information Data Field Description

DATA FIELD	DESCRIPTION
Patient First Name	First name of patient
Patient Last Name	Last name of patient
Patient Gender	Gender of patient
Patient Date of Birth	Date of birth of the patient
Health Number	Number on an Ontario Health Card that uniquely identifies a patient
Dispensed Date	Transaction date when the prescription drug was dispensed
Generic Name	Non-proprietary name or generic name of the drug dispensed (e.g. diclofenac sodium)
Brand Name	Brand name or trade name of the prescription drug dispensed (e.g. Voltaren)
Strength	Strength of the prescription drug; amount of active ingredient in the prescription drug dispensed (e.g. 100mg)
Dosage Form	The physical form of a dose of a drug product (e.g., suppository)
Therapeutic Classification	Pharmacologic therapeutic classification of the prescription drug dispensed (e.g., analgesics nonsteroidal)
Therapeutic Sub-Classification	Pharmacologic therapeutic sub-classification of the prescription drug dispensed. (e.g. anti-inflammatory agent)
Quantity	Quantity of medication dispensed
Estimated Days Supply	Estimated number of days of treatment based on the directions for use on the prescription and/or the pharmacist's judgment on usage
Drug Identification Number (DIN)/ Product Identification Number (PIN)	Drug Identification Number (DIN) assigned by Health Canada to every drug (e.g.Voltaren –DIN 00514012) Product Identification Number (PIN) assigned by the Ministry of Health (MOH) to every pharmacy service (e.g. MedsCheck –PIN 93899981) and some drugs
Medical Condition / Reason for Use	Indicates prescriber's designation of the medical condition for which the patient is being treated. This data field is only available for Limited Use products (e.g. Acarbose, Aflibercept)
Current Prescription Number	Number assigned by the pharmacy that appears on the label of the dispensed prescription
Prescriber Name	Name of the prescriber that provided the prescription
Prescriber Phone Number	Phone number of the prescriber that provided the prescription
Prescriber ID	License/registration number of the prescriber, issued by their licensing college.
Prescriber ID Reference	Identifies the registration authority (i.e. regulatory college – CPSO, RCDSO, etc.) which issued the license/registration number to the prescriber of the medication
Pharmacist Name	Name of the pharmacist or dispensing physician that dispensed the prescription * Always available in Narcotic Monitoring System (NMS) records. Available in Ontario Drug Benefit (ODB) records if the pharmacist rendered a pharmacy service

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Pharmacy Name	Name of the pharmacy that dispensed the prescription
Pharmacy Phone Number	Phone number of the pharmacy that dispensed the prescription

Appendix B: Pharmacy Service Data Field Description

DATA FIELD	DESCRIPTION
Service Date	Transaction date when the pharmacy service was rendered
Pharmacy Service Description	Description of the pharmacy service rendered by a pharmacist (e.g. Medication review for diabetes follow-up)
Pharmacy Service Type	The category of pharmacy service that was rendered (e.g. MedsCheck)
Pharmacist Name	Name of the pharmacist or dispensing physician that rendered the pharmacy service
Pharmacy Name	Name of the pharmacy that rendered the pharmacy service
Pharmacy Phone Number	Phone number of the pharmacy that rendered the pharmacy service

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