Nova Scotia Drug Information System

Functions
Welcome to module 4 – the final module in this series about the Drug Information System. The purpose of this module is to provide more detail about some of the functions of the Drug Information System that you need to be aware of.

Learning Outcomes

At the completion of this module, you will be able to:

- Recognize the importance of entering accurate and complete data
- Indicate the requirements for processing prescription orders and dispenses
- Distinguish between allergies, intolerances and adverse reactions
- Describe the types of information recorded in the Drug Information System related to Other Medications, Immunizations and Patient Notes.
Notes:
It is important to understand that once the Drug Information System is implemented in your pharmacy, any prescription information you enter into your pharmacy system to dispense a medication will be viewed and used by others outside your pharmacy. In addition, any other information you choose to enter into the Drug Information System, such as allergies, over-the-counter medications and patient notes will also viewed and used by others outside your pharmacy.

Dispensary staff from other pharmacies, other health care professionals (e.g. physicians, dentists, optometrists, nurse practitioners), as well as, authorized hospital users will rely upon the information in the Drug Information System when making clinical decisions about patients’ care.
In the addition, once your pharmacy is connected to the Drug Information System, Drug Utilization Reviews (DURs) for drug-to-drug interactions, drug contraindications, and allergy contraindications will run against the patient's comprehensive drug profile rather than just the information in your local pharmacy.

Therefore, to help ensure safe and effective drug therapy for your patients and to get the most benefit for your patients, it is vital that the information you enter into the Drug Information System is accurate and complete.

**Notes:**
As noted in Module 1 (Introduction to the Drug Information System), one of the primary functions (and benefits) of the Drug Information System is to address issues of fragmented drug information and bring pieces of information together in one comprehensive medication profile for each patient.

Patient medication profiles will include information about:
<table>
<thead>
<tr>
<th>prescription orders</th>
<th>dispenses</th>
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<tr>
<td>other medications (e.g. over-the-counter medications)</td>
<td>pharmacy professional services (such as medication reviews, smoking cessation counseling)</td>
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<tr>
<td>allergies/intolerances</td>
<td>adverse reactions</td>
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<tr>
<td>medical conditions</td>
<td>patient observations (e.g. height, weight, blood pressure and glucose levels)</td>
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<tr>
<td>immunizations</td>
<td>patient notes</td>
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The majority of these records currently exist within your pharmacy software and you are familiar with the information to be entered. Therefore, this module will only cover those areas that will be affected by the implementation of the Drug Information System. However, it is important to remember that adding information to any of these areas will
Prescriptions Orders and Dispenses

The Drug Information System will introduce a new concept. It will make a distinction between a prescription ‘order’ and a prescription ‘dispense’. This distinction basically breaks a prescription into two parts: the prescription before it is filled, which is the ‘order’; and the prescription after it is filled, which is the ‘dispense’.

A prescriber creates a prescription ‘order’ (written, faxed or verbal) and the prescription ‘order’ arrives at a pharmacy to be dispensed. If the pharmacy is connected to the Drug Information System, the pharmacy creates the prescription ‘order’ in their local pharmacy system by entering the details of the prescription. Once the data entry process is complete, the pharmacy transmits a ‘dispense’ request against the ‘order’ to applicable third parties for payment as well as to the Drug Information System. Each pharmacy software vendor may display an ‘order’ and all associated ‘dispenses’ against the order in a comprehensive medication profile which will benefit your patients.
Electronic prescriptions

In Stream 2 of the implementation of the Drug Information System, prescribers (i.e. pharmacists, physicians, nurse practitioners, optometrists, dentists etc.) will be able to create e-Prescriptions.

E-Prescriptions are prescription ‘orders’ which are electronically created and transmitted to the Drug Information System by the prescriber. Rather than entering in the prescription information manually, the pharmacy locates the electronic ‘order’ in the Drug Information System via their pharmacy software system. The pharmacy can then retrieve the electronic prescription ‘order’ from the Drug Information System, save the prescription ‘order’ locally and transmit a ‘dispense’ request against the ‘order’ to applicable third parties for payment and to the Drug Information System.

Note that until Stream 2 begins, all e-Prescriptions are ‘non-authoritative’, which means you must have a paper copy of the prescription before you can dispense it.

Prescription Dispense Pick-Up

When a prescription dispense is picked up by the patient, pick-up information must be recorded in the Drug Information System. Recording the date and time a prescription dispense was picked up will result in a more precise and up-to-date patient medication profile allowing for more

| Slightly different way. However, the concept remains the same. |

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accurate patient counseling, and better patient outcomes. Your pharmacy software vendor will provide you with details of how your pharmacy software system records pick-up information.

Transfers

Using the Drug Information System will lead to more accurate and timely processing of prescription transfer requests. Here's how:

The pharmacy that is transferring the prescription (the current custodian) simply enters the “transfer to” information on the prescription into their pharmacy system and transmits this to the Drug Information System. The pharmacy accepting the prescription can then retrieve the information from the Drug Information System, save the prescription locally, and transmit a ‘dispense’ request against it to applicable third parties for payment and to the Drug Information System.

Note- The electronic transfer process can only work if both pharmacies are connected to the Drug Information System.
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Devices

Notes:
In the Drug Information System, all devices (e.g. blood glucose monitoring devices, aerochambers, compression stockings, etc.) must be entered using an OPINIONS PIN as assigned by Atlantic Pharmaceutical Services Inc. (APSI). The list of OPINIONS PINs is available from APSI and administered through the Pharmacy Association of Nova Scotia (PANS).

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Compounded medications

Notes:
Compounded prescriptions must be entered in the Drug Information System as either:
- a free text description of the compound; or
- a free text description of the compound plus a list of ingredients.

For example:
Free Text:  HC1% powder in Betaderm Cream
Free text drug name: Methadone 1 mg/mL
Ingredients:  100 mg Methadone Powder (99099993) * OPINIONS PIN
100 mL Tang (09999997) * any pseudo DIN

As shown in the slide, a free text description of the compound, such as 1% hydrocortisone powder in Betaderm Cream, may provide enough
### Compounds containing monitored drug

**Notes:**
Remember, if the compound contains a monitored drug, you MUST enter the compound with a free text description of the compound plus a list of its ingredients. Monitored drug ingredients can be represented by a DIN, if you are using a DIN product as an ingredient – for example, use the DIN for Metadol liquid if you are using it to make a methadone compound. Monitored drug ingredients can also be represented by an OPINIONS PIN, if you are using a monitored drug ingredient that has been assigned one. As in the example on the previous slide, Methadone Powder has been assigned an OPINIONS PIN.
Notes:
Nova Scotia's Drug Information System will be used by a variety of health care professionals. Different health care professionals have different understandings regarding the terms: allergies, intolerances and adverse reactions. These terms are widely debated and so, for the purposes of consistency the following definitions are offered:

**Allergy:** is defined as a hypersensitivity caused by an exposure to a substance which results in an adverse immunologic reaction on subsequent exposures. A rash, hives, swelling and anaphylaxis generally signify the presence of an allergy.

**Intolerance:** is defined as an identified reaction to a substance which is caused by a mechanism other than an immunologic over-response. Intolerances do not tend to have the risk of producing a more severe reaction on subsequent exposures.

**Adverse Reaction:** is a non-expected and unintended response to a drug. Examples include: drug overdose, interactions (drug to drug or drug to food), unusual lack of therapeutic response.
Some examples are: nausea, constipation, dry mouth or hair loss.

**Adverse Reaction**: in the Drug Information System is a noxious and unintended consequence of a normal dose of a drug. Although an adverse reaction can be caused by an allergy or intolerance, it also includes: abusing a drug; overdosing by using the drug in conjunction with other substances; drug interactions; and lack of response.

**Notes:**

Now that we have clarified the definitions of allergies and intolerances, it is important to know how to record these in the Drug Information System. Allergies or intolerances to drugs that have a DIN or NPN can be recorded in the allergy/intolerance section of the patient's Drug Information System profile. Please note that the Drug Information System will do a drug utilization review based on the drug class for allergies and intolerances to drugs that have a DIN, but NOT for drugs that have an NPN.

Allergies or intolerances to anything
that does not have a DIN or NPN, cannot be recorded in the allergy/intolerance section of the patient's Drug Information System profile e.g. an allergy to latex or to a food, such as eggs. However, as this is important information to include in the patient's profile, you can record it as a Patient Note in the patient's Drug Information System profile. Remember though, anything recorded as a Patient Note is not included in the drug utilization review process.

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Other medications

Notes:

In module one, we noted that medications that were not dispensed by a community pharmacy would not be automatically collected in the Drug Information System. Some examples included in-patient medications, over the counter medications, medications used in clinical trials and those provided under the Exception Drug Funding Programs. However, the Drug Information System provides dispensary staff with the ability to record these other medications into a patient’s medication profile through the Other Medication function. Entering these other medications will result in a more comprehensive medication profile for each patient. In addition, other medications that were not included in the drug utilization process leading to increased medication safety.
more comprehensive medication profile for each patient. In addition, other medications that are represented by a DIN will be included in the drug utilization process leading to increased medication safety.

A drug that is entered in the Other Medication section must be represented by a DIN or NPN and can include: an over-the-counter medication (OTC); a natural health product; prescription medication provided as a manufacturer’s sample; a prescription drug prescribed and dispensed in another jurisdiction; and medications, such as transplant and HIV medications, that are dispensed by hospital pharmacies.

When recording Other Medications, the DIN does not have to exactly match the one that the patient is taking as long as it is within the same drug class. For example, if the patient is taking a generic brand of a drug, but the DIN for the brand name is entered, it will be considered the same for Drug Utilization Reviews.

Using the Other Medications option is a great way to record long term OTC drug therapy such as a low dose ASA. As many OTC drugs and natural health products interact with prescription drugs, recording them as an Other Medication is a way to ensure the Drug Information System will include them in the Drug Utilization Review against the patient’s profile.

Long term OTCs should be entered with an end date far into the future, such as using a date with the year 2099. This
will ensure it remains active on the profile indefinitely.

It is recommended that end dates for short term therapies be entered to ensure they are not included in the Drug Utilization Reviews after they are completed.

If the end date is left blank, the Drug Information System will assign an end date based on a predetermined number of days from the transaction date.

Although not required by law, it is recommended that you record patient purchases of over-the-counter drugs which contain codeine in the Other Medication section. This will help to identify potential abuse situations and will ensure that these drugs are included in the drug utilization review.

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**Immunizations**

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**Notes:**

By the time pharmacies begin connecting to the Drug Information System, it will be within pharmacists' scope of practice to administer immunizations.

A practical tip for recording immunization administration in the Drug Information System is to enter the information in the local pharmacy system prior to doing the actual administration. This will allow the pharmacist to view the patient's Drug Information System profile and allow the Drug Information System to do a
duplicate drug and allergy check prior to administering the immunization.

If for some reason the immunization is not given, an entry can be made in the patient note to indicate that it was not administered and the reason why it was not administered.

Note that for immunization administration of drugs that are not dispensed by the pharmacy (such as some vaccines), the Drug Information System only checks for duplicate drugs. It does not check for drug interactions.

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<tr>
<td><strong>Patient Notes</strong></td>
<td>As mentioned previously, the Patient Notes section of a patient's Drug Information System profile can be used to record allergies or intolerances to anything that does not have a DIN or NPN, such as latex or eggs. It can also be used to record notes about a patient that are important to communicate to the patient's other health care providers such needing to have their medications dispensed in snap cap vials. Depending on the content, you can designate that a Patient Note be added to the local pharmacy software system.</td>
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only, or to both your local system and the Drug Information System. You can also query notes and remove them from the patient's Drug Information System profile.

It is recommended that any clinically important notes be added to both your local system and the Drug Information System to ensure the comprehensiveness of the patient profile. However, it is important to use discretion when entering patient notes in the Drug Information System because you will be sharing this information with all of the patient's health care providers who have access to the Drug Information System. You could also be sharing the information with the patient because the Personal Health Information Act gives patients the right to receive a copy of their information.
The first community pharmacies in Nova Scotia will begin transmitting information to the Drug Information System in the summer of 2013. It is expected that all pharmacies will be connected to the Drug Information System by December 2014. The timing of pharmacies being connected will be coordinated with the Drug Information System project, pharmacy software vendors and the owners of pharmacies.

As noted in earlier modules, when a pharmacy is connected, information will be entered into the Drug Information System on a “go-forward” basis. There will not be an initial load of patient files currently found in pharmacy’s software system.
When your pharmacy first connects to the Drug Information System, the following are things to keep in mind:

Current patient information you have stored in your local pharmacy system will not exist in the patient’s Drug Information System medication profile unless you deliberately enter it. While you are not required to send this information to the Drug Information System, you are encouraged to add any information you have that would be important to share with the patient’s health care providers. Some examples include: allergies/intolerances; medical conditions; and other medications.

- Any transactions that were completed before your pharmacy was connected cannot be reversed, changed or updated in the Drug Information System as they will not be in the Drug Information System. These include:
  - dispense reversals
  - retracting a record
  - discontinuing a prescription order
  - removing a patient note
While other pharmacies are connecting to the Drug Information System, there are some things you need to consider:

- Your patients’ medication profiles may not be comprehensive until all pharmacies are connected and have entered their prescription and other medication-related information into the Drug Information System.
- Until all pharmacies are connected, you should check the PMP e-Access portal to view all dispenses for monitored drugs for your patients.
- In order to transfer a prescription electronically, both pharmacies must be connected to the Drug Information System. If only one pharmacy is connected or if a prescription is transferred in error to a pharmacy that not is not connected, simply transfer the prescription verbally or via fax as you do today.
In this module you learned the importance of ensuring that the information entered into the Drug Information System is accurate and complete. You also learned the distinction between "prescription orders" and "prescription dispenses" and understand that until Stream 2 begins, all e-Prescriptions are 'non-authoritative', which means you must have a paper copy of the prescription before you can dispense it. You also learned that devices can only be recorded in the Drug Information System using the appropriate OPINIONS PIN and that dispenses for compounds have different recording requirements depending on whether or not they contain a monitored drug. In addition, you learned of the importance of recording dispense pick up information.

You were provided with definitions of allergy, intolerance and adverse reactions and informed that allergies or intolerances to drugs with a DIN or NPN could be recorded in the Allergy/Intolerance section of a patient's Drug Information System profile, whereas allergies or intolerances to substances that do NOT have a DIN or NPN must be recorded in a Patient Note.
You now know that the Other Medications function provides a great place to record short term and long term over-the-counter medications along with other medications not dispensed by community pharmacies.

You also have knowledge about recording information in the Immunizations and Patient Notes in the Drug Information System.

Finally, you were provided with information about what to expect when you first connect to the Drug Information System and things to consider while the other pharmacies across Nova Scotia are connecting.
This E-learning course consisting of four modules is just one aspect of the educational information that will be available for dispensary staff. There will also be resource documents which may be useful on a day-to-day basis such as Hints and Tips; Reference Guide, Frequently Asked Questions and fact sheets. These documents will be available in both electronic and printed form.

Any updates to any of the resource documents will be found on the Department of Health and Wellness website in the Drug Information System section.
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<th>Slide 19</th>
<th>Evaluation</th>
<th>Notes:</th>
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