ePrescribing Workflow Walk-through

This series of questions is meant to be used to logically walk a clinician through each of the workflow steps encountered in prescribing. The questions directly reflect the prescribing workflow model and do not tie to any specific scenario. The clinician or assessor can expand on the questions as necessary.

Initiator

1. Request Prescription or Modification

When you receive a request to prescribe, renew change, or cancel a medication, in what forms do you receive the request? (E.g. telephone, fax, Email, direct to EMR, etc.)

Authorized Prescriber

2. Identify Patient

When about to consider prescribing, how do you confirm the identity of the patient concerned? (E.g. Visual recognition, name, PHN, etc.)

3. Access Patient Record

How do you retrieve and access the patient's chart? (E.g. Index card to numeric file folder, directly retrieve file folder based on patient name on chart, EMR, etc.)

4. Prescribe?

Having made the decision to prescribe, physicians consider patient-specific clinical and non-clinical factors, plus available therapeutic choices. Please describe how you are able to include each of the following factors in deciding whether, and what to prescribe, <u>at the time of prescribing</u>:

4.1. Evaluate Patient-Specific Clinical Factors

1. Demographics: age, gender, weight and race
2. Pregnancy & breast-feeding status, (including stage of pregnancy)
3. Allergies & intolerances
4. Current and past medications (including reason for, and date of discontinuation)
5. Current and past medical conditions
6. Metabolic status & lab results (Renal, hepatic, respiratory and cardiac function, & relevant lab results such as culture results, lipid values, imaging findings, etc.)
7. Clinical metrics (For example, blood pressure, heart rate, peak flow, ejection fraction)
8. Psychiatric history, mental capacity, and medication compliance (including past overdoses, and current depression or mental instability at time of prescribing)

4.2. Evaluate Patient-Specific non-Clinical Factors

1. Financial status
2. Insurer coverage
3. Patient preferences. E.g. If the patient is a school-age child, the parents may prefer medication dosing that facilitates giving medication before and after school, but not during school hours.

4.3. Evaluate Medication-Specific Factors

1. Allergies (including drug excipients like lactose, dyes, etc.)

2. Contraindications
3. Warnings
4. Use in special populations including use in pregnancy, lactation, children, the elderly, specific races, and genders.
5. Drug interactions
6. Adverse reactions
7. Pharmacokinetics
8. Dosage selection
9. Overdose risks
10. Discontinuation risks
11. Cost

4.4. Evaluate Options

Having considered the patient-specific factors, and medication-specific factors, how do you rank the available therapeutic options and select a drug?

5. Document Prescription

Having decided to prescribe:
1. How do you document the fact in your patient's medical record?

6. Transmit Prescription

Having decided to prescribe:
1. How is the prescription transmitted to a pharmacy?
2. Can the prescription be filled at any pharmacy, or only at a specific one?
3. How do transmit a prescription securely?

7. Initiate Prescribing-Related Activities

Having written a prescription, there is often the need to initiate related activities. How do you do the following?:
1. Initiate Monitoring Investigations – decide what baseline lab and follow-up testing is appropriate
2. Flag for Refill –flag a recall when a prescription will be due for a refill.
3. Request Insurer Coverage - by a third-party payer
4. Reconcile Insurer Response - reconcile the insurer's response with the initial request
5. Submit Special Authority Request
6. Broadcast Warnings - warn pharmacies and/or clinicians if your patient is drug-seeking, is a suicide risk, or should only receive prescriptions from you alone:
   a. How could you notify all pharmacies and clinicians in your community?
   b. How could you notify all pharmacies and clinicians at a regional or national level?
7. Notify Initiator - if another clinician (for example, a consultant), had initially recommended a medication that you then prescribed:
   a. How would you notify the originating clinician, that the medication had been prescribed?, including the medication name, dose, and quantity.
   b. How would you associate a consultant's letter (that contained information about the medication advice), with the event of medication prescribing?

8. Ongoing Monitoring

After generating a prescription, there is a need for ongoing monitoring of prescription-related issues over both the short-term and long-term. What processes are in place to provide ongoing monitoring of prescription-related issues over both the short-term and long-term?:
1. Revise Prescription - notification of the patient or pharmacist, when a clinician wants to revise a prescription based on supplementary information. What processes care in place to facilitate this process for you? E.g. If on completing your charting later in the day, you realized that a patient was allergic to the medication you had prescribed.

2. Identify Unfilled Prescriptions – notification if a patient does not fill their prescription within an expected time period.
3. Identify Delayed Refills – notification if a patient does not receive a refill when it is due.
4. Identify Patients Affected by a Drug Recall - identifying and then notifying affected patients If a medication or a specific lot number was later recalled.
5. Identify Need for Prescription Modification - identifying situations where a prescription needs to be changed because of a change in patient or drug-specific factors:
   a. Your patient's eGFR dropped below 40 while they were on Metformin.
   b. A patient became pregnant, and they had a prn prescription for Cipro for UTI.
   a. A change in a drug product monograph mandated a change in dose for your patients with CHF.

Patient

Please note that the workflow tasks for the "Patient" role includes two tasks "Access Patient Record" and "Ongoing Monitoring". These are not part of what a clinician would encounter, and as such, are out of scope for an assessment tool targeted to clinicians. Assessment of these steps are therefore not included in the workflow assessment.

9. Review Prescription

Having generated a prescription:
1. How would a patient have an opportunity to review it?
2. How would a patient contact you if they had questions or concerns about the prescription?

Dispenser

Please note that the workflow tasks for the "Dispenser" role includes "Identify Patient", "Access Patient Record" and "Dispense?" with the subset tasks of "Evaluate Prescription Validity", "Evaluate Patient-specific Factors", and "Evaluate Medication-specific Factors". Ongoing Monitoring is another task for Dispensers. A pharmacist receiving a prescription needs to do these tasks. This assessment tool is however, targeted to assessing clinician workflow. Except for checking a medication for expiry or recall, It is assumed that a clinician will have already covered these workflow tasks in their role as an "Authorized Prescriber". It would be redundant to duplicate these tasks here.

10. Dispense?

If you dispense medication samples to a patient, how would you first check:
1. That the drug sample had not expired?
2. Whether the lot number had been recalled?

11. Document (Dispense)

Having dispensed medication samples, how would you document having dispensed the samples, including dose, quantity, lot number, and expiry date? E.g. done by hand, bar-code scanner, RFID, etc.

12. Initiate Dispensing-related Activities

After a medication has been dispensed, several ancillary workflow tasks can be triggered. How are the following done in your office?:
1. Review Medication – After dispensing medication samples, how do you review use and side effects of a medication with a patient?
2. Flag for Refill – Having dispensed a medication, how would you flag that that it should be renewed when it runs out?

3. Notify Clinician – If a pharmacist dispensed a medication, how would you know details of the transaction?:
   a. The fact that the medication had been dispensed
   b. Whether the pharmacist had substituted a generic version of the medication
   c. Details about which pharmacy was used, what was dispensed, including dose, quantity, lot number, and expiry date?
4. Notify Patient – After you have dispensed a medication sample, what mechanisms are in place to update any personal health record that your patient might have?
5. Reconcile Dispensing with Prescription – If you were the prescriber, how would you reconcile the original prescription with the dispensed medication?

Administering Authority

Please note that the workflow tasks for the "Administering Authority" role include "Identify Patient", "Access Patient Record" and "Ongoing Monitoring". A patient, their proxy, or their care-giver needs to do these tasks. This assessment tool is however, targeted to assessing clinician workflow. It is assumed that a clinician will already have covered these tasks in their role as an "Authorized Prescriber". It would be redundant to duplicate these tasks here.

13. Administer?

Before administering medication to a patient, it is important to evaluate medication and patient information to verify the safety of administering the product to a patient. How would you do the following:

13.1. Evaluate Medication-Specific Factors

How would you verify that:
1. The medication was for the correct patient?
2. The correct medication and dose was dispensed?
3. That the medication had not expired and that the medication or lot number had not been recalled?

13.2. Evaluate Patient-Specific Factors

1. As there can be a delay between the time that a medication is prescribed, and the time that it is administered, how would you verify that the medication was still safe to administer, given the patient's current medical status at the time of administration?
2. Medications requiring repeated administration, like vaccines and hormonal injections (E.g. Lupron) are usually given on a scheduled basis. How do you know if a patient is on-schedule for medication administration?

14. Document (Administer)

Having administered a medication, how do you document details about the medication, dose, route, site, lot number, etc. in your patient's medical record?

15. Initiate Administrating-related Activities

After administering medication to a patient several ancillary workflow activities may be initiated. How are the following done in your office?:
1. Flag for Next Dose – How would you flag when the next dose was due, if applicable (E.g. series of vaccine doses)?
2. Notify Clinicians (Clinician to Clinician) - If another clinician (for example, a consultant), had initially prescribed a medication that you then administered:
   a. How would you notify the initial prescriber, that the medication had been administered?

  b. How would you forward details about what was administered, including dose, quantity, lot number, and expiry date?

  c. How would you associate a consultant's letter (that contained information about the prescription), with the event of medication administration?

3. Notify Patient – If a patient has a personal health record, how would you update their record after administering a medication?

4. Reconcile Administration with Prescription – If you were the prescriber, how would you reconcile the original prescription with the administered medication?

16. Notify Care Providers re Adverse Event

If a patient has an adverse reaction to a medication, how are care providers including pharmacists notified of the fact?