Technician Tutorial:
Mastering Medication Lists and Histories

There's a big focus on keeping track of the meds patients are supposed to be taking. Typically, a patient's **medication list** is a record they maintain for their own use and for communication with healthcare providers. A **medication history** typically refers to a compilation of the patient's current meds that's meant to be used by healthcare professionals. However, some people use the terms interchangeably, which is okay. The main point is that these lists and histories can help prevent problems like dosing or scheduling errors (e.g., taking a med twice a day that was prescribed to be taken once daily), duplicate therapy (e.g., not stopping a med that was supposed to be discontinued when a similar med was started), and continuing unneeded drug therapies (e.g., not stopping a med that was prescribed for treatment of a temporary condition). In fact, accurate medication lists and histories are necessary for medication reconciliation. "Med rec" includes reviewing a patient's meds at transitions of care (e.g., into and out of the hospital, from one hospital unit to another). It is known that med rec can help reduce problems with medications, improve patient safety, and ultimately reduce hospital readmissions.

What are some other differences between medication lists and medication histories?

In addition to the slight differences mentioned above, **medication list** is a term that may be used more frequently in the community or outpatient setting, while the term **medication history** may be used more frequently in the hospital or inpatient setting. We'll stick with that convention here, although you may interchange the terms according to what's used in your practice setting.

What benefits do med lists and histories offer over info already available in clinicians' computer systems?

It may seem unnecessary for a patient to keep a comprehensive and current list of the medications they're taking since pharmacies and prescribers generally have lists in the form of patient profiles and such. In reality, clinicians' lists are not always complete, correct, or current, and they don't necessarily include all the nonprescription products a patient takes. Plus, patients may be taking meds differently than prescribed in some cases.

Likewise, a medication history that's gathered upon admission to a hospital pulls all the patient's medication information together into one place. This can help ensure that treatments for chronic conditions such as diabetes, heart failure, or high blood pressure are appropriate. As an added benefit, problems with a patient's home medication regimen may come to light during a hospitalization and can be addressed.

What are some tips for communicating with patients when gathering med info?

You may encounter patients in different settings when taking medication histories or gathering medication lists, including outpatient pharmacies, long-term care settings (e.g., nursing homes), and in several areas of the hospital, such as the emergency department, general medicine floors, or even critical care units. Here are some important rules of thumb to keep in mind for communicating with patients in any practice setting:

- Always introduce yourself, state your purpose, and let the patient/caregiver know what to expect. Here's an example: "Hi, my name is Jordan. I work in the pharmacy, and I'm here to get a list of the medications you take at home. I'll need to ask you some questions and it will take about 20 minutes."
- Don't forget to verify the patient's identity, such as by asking name and date of birth before starting.
- Make eye contact as appropriate.
- Speak clearly and not too fast. Many older patients have some degree of hearing loss and may be hesitant to ask you to repeat what you've already said. When communicating with older patients, it's more important to speak clearly and at an even pace than to speak loudly and slowly, which can be our tendency.

- Look for any info about whether a patient is hearing-impaired or doesn't speak English (or French, in Canada, if applicable) before meeting them. That way you can have necessary resources such as an interpreter ready.
- Access any available information about the patient's medications such as their profile or a list of discharge meds from their last admission. You can use this as a starting point to identify any potential issues (e.g., unclear directions) that'll need to be clarified during the interview. If you identify any discrepancies during the patient interview, note these as well.
- Refer to meds by brand or generic name, whichever the patient recognizes most easily.
- Ask open-ended questions whenever possible to get the best information. Patients will be able to answer "yes" or "no" questions even if they don't understand the question. For example, ask "What over-the-counter medications do you use?" rather than "Do you use any over-the-counter medications?" Or "How do you take this medication?" rather than "Do you take this medication twice daily?"
- If you don't understand a patient's response, ask questions to clarify rather than documenting unclear information.
- Avoid the use of medical jargon; it may confuse patients. For example, say "as needed" or "as necessary" instead of "PRN," "blood pressure" instead of "hypertension," and "twice a day" instead of "BID."
- When you're finished, let the patient know, ask if they have questions, and thank them for their time.

Keep in mind that there may be times when a patient is not able to participate in the medication history process. An example is a patient admitted in critical condition after a car accident, who's heavily sedated with medications. In this case, it's still important to get a med history. But you'll likely have to turn to sources other than the patient for information about what medications they take. You may need to look at their Rx bottles (if available), talk to a family member, or try to find out which pharmacy they use. Talking with the patient's nurse might be helpful to figure out where to start. Follow your pharmacy's policies and procedures as well and ensure that there's timely follow-up for finding out any missing information.

What is a "best possible" med list or history?

In your practice setting you'll probably have policies and procedures about what info to collect. You may have forms or a computer template to use. The following are general guidelines about the information that should be included in a patient's med list or history.

A complete med list or history has **all the medications a patient is taking**. This includes medications taken or used by any route: orally (e.g., capsules, liquids, tablets); topically (e.g., creams, ointments, transdermal patches); in the eyes or ears (e.g., drops, ointments); injected (e.g., heparin, insulin); inhaled (e.g., inhalers, nebulizers), and so on, This also includes meds from any source, including drug samples, mail order, outpatient infusion centers, specialty pharmacies, etc. Finally, it also includes products that don't require a prescription, such as supplements (e.g., glucosamine, fish oil), vitamins (e.g., multivitamins, vitamin C), and over-the-counter (OTC) medications (e.g., acetaminophen, ibuprofen, cough and cold preps).

Plenty of folks don't think of supplements, vitamins, and OTCs as "real" drugs. But they are. These products can have side effects that are sometimes serious. And they can cause drug interactions with each other and with Rx drugs. In fact, use of these meds might contribute to a hospital admission. An example is ginkgo biloba, which can increase bleeding risk with blood thinners (e.g., warfarin).

Don't forget to ask about immunization history. Patients who need vaccines, such as COVID-19, influenza, or pneumococcal, can get these while they're in the hospital. Asking about immunizations can also flag patients who need to receive vaccines in the outpatient setting.

You may need to ask if the patient uses any recreational drugs such as alcohol or marijuana. As with Rx meds and nonprescription products, record how much the patient uses and how often. For example, note two beers per day or weekly use of marijuana. This information may be important due to possible effects on meds and certain medical conditions. Smoking (or vaping) history is useful as well. Smoking cessation strategies can be recommended if appropriate. Also, smoking can interact with some medications. Ask these questions in a clinical and nonjudgmental manner.

What other details should be included on a med list or history?

For each medication a patient is taking, the **correct strength and regimen** (dose and dosing schedule) should be included. The **indication or reason for use** should also be included. For example: metoprolol tartrate 50 mg tablets, one by mouth, twice daily, for high blood pressure. This is sometimes referred to as a "complete pharmaceutical sentence."

The benefits to having this information include the fact that dosing errors might be caught. Errors can stem from different sources including a prescribing error, a pharmacy error, or a misunderstanding on the patient's part. For example, if a patient's list includes metoprolol tartrate 50 mg tablets, one by mouth four times a day, a pharmacist or prescriber would be able to question the regimen. (This med is typically given twice a day.)

The **date each medication was started (or stopped)** is also helpful. This can clarify whether a therapy is being duplicated. For example, if a patient gets switched from metoprolol tartrate 50 mg twice a day to metoprolol succinate 100 mg once a day, the stop date of the old regimen should be noted, and the new regimen should be added with the start date. Including both with no start or stop date could lead a clinician to believe the patient is taking double metoprolol therapy.

If a patient tells you they've recently stopped or started a medication, ask them about the **reason for the change**. Examples of reasons that may be given include "because I started on a different medication and my doctor told me to stop taking it," "it gave me stomach upset," or "I couldn't afford it." This information will be very helpful for clinicians.

For hospital admission med histories, the **last time the patient took a dose of each medication** should be recorded if possible. This can help prevent doses of meds that are continued in-house from being given too early or late. For example, if a patient taking levofloxacin 500 mg once a day is admitted to the hospital mid-morning, it will be important to know if they already took a dose of levofloxacin since an admission med order would likely schedule a dose to be given the same day. This information can be critical when a med could have a negative impact on a patient's treatment. For instance, noting the last time a patient took a blood thinner (e.g., rivaroxaban) could be critical if the patient requires an urgent surgery; these meds could cause dangerous bleeding during surgery.

Physical characteristics of a medication, such as the **color, shape, and markings** on a tablet, can be a useful tool. For example, if a patient says they're taking *Synthroid* (levothyroxine) 250 mcg by mouth once daily (a relatively high dose) and you suspect they're taking *Synthroid* 25 mcg by mouth once daily, the tablet can be used as a double-check. The *Synthroid* 25 mcg tabs are orange. And a *Synthroid* 250 mcg dose would require that the patient take more than one tablet per dose, since *Synthroid* does not come in a strength of 250 mcg. Checking the patient's prescription bottles can be helpful as well. Keep in mind that physical characteristics of a med aren't foolproof; colors and shapes can change and be subjective.

A complete list of a patient's **allergies** should also be included on a med list or history. This includes drug allergies such as sulfa drugs, aspirin, and opioids; food allergies such as shellfish, eggs, and peanuts; and environmental allergies such as bee stings, medical tape, and latex. The patient's reactions should also be listed. Sometimes patients mistake reactions that are simply side effects such as nausea or sedation for actual allergies. These types of reactions aren't unimportant. A patient who throws up when he or she takes codeine

doesn't want to keep taking it. On the other hand, it's important that reactions that aren't true allergies don't prevent a clinician from providing the patient with a needed therapy, such as a particular antibiotic.

Any **adverse drug reactions** a patient is experiencing should be documented, in addition to any problems a patient is having taking their meds.

Other information that's good to have is **contact info for a patient's providers**. This is especially true if multiple providers are prescribing medications for the patient. Contact info for the patient's pharmacy or pharmacies can be included too.

What other steps are important in creating a med list or history?

As mentioned, policies and procedures in your practice setting will likely provide a framework for the process you'll follow in creating med lists and histories. One key component is that the information is gathered in a systematic fashion. For example, use a routine list of questions wherein each necessary piece of information is addressed. In addition, verifying a med history with a second reliable source might also be required in the hospital setting and is a good idea in outpatient settings too, especially to fill in any gaps. These sources may include a family member or caregiver (make sure there are no issues with HIPAA), the patient's community pharmacy, or the patient's prescriber. It's also likely that a pharmacist will be required to review the patient's medication history or list for correctness and to follow up on any potential issues.

In the hospital setting, follow proper procedures for contact with patients such as by using hand hygiene when you enter and exit the patient's room and by following any additional precautions such as wearing gloves and a gown when entering the room of a patient on contact isolation.

When should a patient's med list be updated?

Recommend that patients update their med lists at least **after every visit to a prescriber and after being discharged from the hospital**. This way changes can be incorporated as soon as they happen. When patients bring in new prescriptions or come in for other pharmacy service, help them add new medications along with the start date and cross off old ones, if necessary, along with adding the stop date.

How can patients use their med lists?

Recommend that patients keep their med lists handy in case of emergency. The med list should also be shown at every office visit, at the pharmacy, or on admission to the hospital. This can help prevent errors and keep all the patient's providers on the same page.

What's the best way for a patient to keep their med list?

A med list can be as simple as a **handwritten list** on a piece of paper. A med list can be stored as a **simple electronic document** (e.g., *Microsoft Word* document, PDF). The FDA has such a form at http://www.fda.gov/downloads/AboutFDA/ReportsManualsForms/Forms/UCM095018.pdf. This form provides very detailed instructions for patients. There are also a variety of **smartphone apps** (e.g., *My Meds*) for keeping medication lists. Some of these have handy features such as the capability of sharing the list with providers electronically.

Regardless of the mechanism, it's important for patients to ensure their med lists are complete, correct, and current.

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--Continue to the next section for a "Cheat Sheet" for Mastering Medication Lists and Histories--

"Cheat Sheet" for Mastering Medication Lists and Histories

What's a difference between medication lists and medication histories?

- **Medication list** is a term used more frequently in the community or outpatient setting.
- The term **medication history** may be used more frequently in the hospital or inpatient setting.

What benefits do med lists and histories offer over info in clinicians' computer systems?

- Clinicians' lists are not always complete, correct, or current, and they may not include all nonprescription products a patient is taking.
- Patients may be taking meds differently than prescribed in some cases.

What are some tips for communicating with patients when gathering med info?

- Introduce yourself, state your purpose, and let the patient/caregiver know what to expect.
- Make eye contact as appropriate.
- Speak clearly and not too fast.
- Access any available information about the patient's medications, such as their profile or a list of discharge meds from their last admission, if possible. Use this list as a starting point.
- Refer to meds by brand or generic name, whichever the patient recognizes most easily.
- Ask open-ended questions. Patients will be able to answer "yes" or "no" questions even if they don't understand the question.
- If you don't understand a patient's response, ask questions to clarify.
- Don't use medical jargon; it may confuse patients.
- When you're finished, let the patient know, ask if they have questions, and thank them for their time.

What is a "best possible" med list or history?

- A complete med list or history has **all the medications a patient is taking**, by any route, from any source, whether or not they require a prescription.

What details should be included on a med list or history?

- For each medication a patient is taking, include the **strength and regimen** (dose and dosing schedule).
- The **indication or reason for use** should also be included.
- The **date each medication was started (or stopped)** is helpful.
- If a patient has recently stopped or started a med, ask them about the **reason for the change**.
- For hospital admission med histories, document the **last time the patient took a dose of each med**.
- A complete list of a patient's **allergies** should also be included.
- Any **adverse drug reactions** a patient is experiencing should be documented, in addition to any problems a patient is having taking their meds.
- Other information that's good to have is **contact info for a patient's providers**.

When should a patient's med list be updated?

- Recommend that patients update their med lists at least **after every visit to a prescriber and after being discharged from the hospital**.

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