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The Role of e-Prescribing of Controlled Substances in Quality and Safety of Healthcare Part I
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In a nation-wide lecture and webinar on electronic prescribing of controlled substances (ePCS), the benefits of ePCS were discussed this week in Austin Texas. Done in the context of identifying Safety and Quality issues related to all medication prescribing habits and methods, the discussion included "Medication Reconciliation" which is one of the most important aspects of prescribing medications.

Historically, when a patient left a hospital or other in-patient facility, an order was written or given stating, "Continue current," or "Content previous" medications. The problem was that there was no reconciliation of previous, current or in-patient medications. Therefore the potential for medication errors was great. In the Austin conference, a brief discussion was had entitled, "A Modest Proposal for Automation of Medication Reconciliation." It is hoped with within the next two years with the participation of multiple "stakeholders" including SureScrips that an ability to reconcile medications in less than two minutes will be developed.

Medication prescribing is a multifaceted and multifunctional process which includes the following:

- **e-Prescribing of Routine Medications** – most healthcare providers have been doing this for several years. The effectiveness and efficiency of this procedure is discussed below.
- **e-Prescribing of Control Substances** – only a small percentage of providers nationwide are using this tool but those who are find it extremely valuable.
- **Auditing of Prescription Drug Usage with Urine Drug Screens** -- When I started practicing medicine in 1973, urine drug screens were done to determine whether or not a person was abusing medications, whether illegal or prescription drugs. Today, urine drugs screens are used to determine whether patients are taking their prescription pain medications or whether they or others are diverting them to illicit sales and/or use.
- **Decreasing the use of antipsychotics in the elderly** – A uniform theme in prescribing of medication is the decreasing of the use of potentially harmful drugs. In an effort to decrease the inappropriate use of antipsychotic medications in Texas Nursing Homes, The Texas Medical Foundation and the Texas Department of Aging and Disability produced a booklet

which addresses alternative method of treating behavioral and cognitive functions in the elderly. Because SETMA provides care to almost 80% of the long-term care residents in Southeast Texas and because SETMA documents the care of those patients in our electronic patient record (EMR), we have taken this tool kit and created a Clinical Decision Support tool to improve the care of the patients for whom we have responsibility. This tool was discussed in the conference with suggestions for how to improve quality and safety in the use of these medications.

- **Awareness of drugs of abuse in patients receiving controlled substances** -- Deaths from prescription painkillers have quadrupled since 1999, killing more than 16,000 people in the United States in 2013. Nearly two million Americans, aged 12 or older, either abused or were dependent on opioids in 2013. Federal and state authorities are responding to the rapid rise in opioid abuse and deaths. Earlier in August, the White House announced funding for its **High Intensity Drug Trafficking Areas** (HIDTA) program that combines law enforcement and public health resources to help fight painkiller abuse. There are currently 28 HIDTA's, which include approximately 17.2 percent of all counties in the United States and a little over 60 percent of the U.S. population. HIDTA-designated counties are located in 48 states, as well as in Puerto Rico, the U.S. Virgin Islands, and the District of Columbia. Each HIDTA assesses the drug trafficking threat in its defined area for the upcoming year, develops a strategy to address that threat, designs initiatives to implement the strategy, proposes funding needed to carry out the initiatives, and prepares an annual report describing its performance the previous year.
- **Increased use of Texas Access to Prescriptions** – Provided by the Texas Department of Public Safety, this is another point-of-care tool which allows Texas physicians to review their patients' controlled-substances-prescribing information and/or the provider's own prescribing information. This allows the provider to know whether or not patients are receiving prescription medication from more than one healthcare provider. This is the only database for Schedule II-V controlled substances in the state of Texas. More information can be found at https://www.texaspatx.com.

What If?

What if you were on a witness stand and you were asked, "Can you prove that you reviewed the patient's diagnoses, reconciled medication list, urine drug screen for decreasing of diversion, and drug/drug, or patients' allergies/drug interactions before prescribing these mediations? With paper records, you cannot unless you make time-consuming and redundant notes about each of these functions. E-Prescribing via a patient's EMR automatically time/date stamps all of these elements making it easy to prove that you are exercising appropriate diligence in your prescribing habits.

Automation of Medication Reconciliation

Quality care and patient safety would be immeasurably advanced if an automated medication reconciliation function could be accomplished in the next two years (for more information of this function see: Your Life Your Health - A Modest Proposal: Automated Medication Reconciliation)

The two most complicated and difficult problems in medical record keeping are consistently and relentlessly maintaining an accurate, complete and current medication list and maintaining a similar list for chronic problems for which a patient is being followed. (see Problem List Reconciliation Tutorial: EPM Tools - Problem List Reconciliation: The Tools Required to Facilitate the Maintenance of a Current, Valid and Complete Chronic Problem List in an EMR): Your Life Your Health - A Modest Proposal: Automated Medication Reconciliation)

SETMA's use of ePCS decreases the potential for abuse/harm by:

- Eliminating the duplication of prescriptions
- Eliminating alteration of numbers of refills and of quantity prescribed
- Creating a record of all e-prescribed controlled substances
- Requiring a provider-specific, unique six-digit number, which changes every thirty-seconds for ePCS
- Eliminating the ability for anyone but the prescribing physician to create the e-prescription
- Allowing the provider to audit own use of controlled substances

Eventually, it is hoped that we can demonstrated significant cost reductions by the use of ePCS. In the short run, we can make inferences from the fact that efficiency has an element of cost effectiveness. If you look at the institutional (Long-Term Care Facility) cost of controlled-substance medication refills which include the following steps:

1. Call the doctor
2. The doctor writes the prescription
3. The practice calls and tells the institution that the prescription is ready
4. The Institution sends someone to get it
5. Takes the prescription it to the pharmacy
6. Goes back to get the medication
7. This process is repeated 12 times a year or more for each resident. If these steps take only 60 minutes for each refill, and the institution has 50 patients on these medications. The time cost to the facility is 12 times a year x 60 minutes an event x 50 patients divided by 8 hours a day, which is a great deal of time.

With ePCS, the math changes:

- Secure Text or e-mail sent to provider by the facility – 1 minute
- Provider ePCS – 1 minute
- Pharmacy receives electronic order – zero minutes
- Pharmacy batches, fills and delivers the medication – 5 minutes due to shared cost

The equation changes to 12 times a year 7 minutes x 40 patients divided by 8 hours in a day – The current system takes 8.57 times the effort and time and cost to do the same tasks as can be done by ePCS.

Does anyone remember the prescription refill sequence before e-Prescribing of all medications?

1. Prescription is written
2. Taken by patient to pharmacy
3. Pharmacist can't read it
4. Pharmacy calls provider
5. Provider does remember
6. Provider asks for chart
7. Chart can't be found
8. Three days later prescription finally filled by which time everyone is mad

Electronic prescribing and electronic prescribing of controlled substances creates a collaboration between Physicians, Nurse Practitioners, Physician Assistants and pharmacists which has never more real. While the credentialed provider must complete the prescription process, the entire team is involved with steps. Patient safety and quality of care requires careful transitions of care between all members of the healthcare team; this includes during evenings, nights, weekend, and holidays.
Gone are the days when pharmacists had to interpret prescription orders. Now pharmacies receive prescriptions electronically and providers receive notifications that a prescription has been received by the pharmacist

In this process quality, safety and convenience are increased. With ePCS, patients have increased confidence that their medication needs are and will continue to be met and the process is more convenient than ever before. The following link is to an address which addresses the concept that "Convenience Is The New Word For Quality": Presentations - HIMSS 2012: Leaders and Innovators Breakfast Meeting.

Making It More Difficult to Obtain Controlled Substances

As a method of controlling the use of controlled substances some physicians adopted a policy of not prescribing any controlled substances; however that is as problematical as over prescribing. The Texas Medical Board requires physicians to provide treatment for legitimate chronic pain conditions while also requiring physicians to use those medications appropriately.

Tension which exists between

A natural tension exists between patients who need pain medications and other medications which are subject to abuse and healthcare providers who prescribe those medications. Providers want to properly treat patients with these medications. In the face of increasing abuse of pain medications and increasing demands by the Texas Medical Board upon physicians who prescribe these medications, doctors often feel pressure from all sides.

Every month, the Texas Medical Board publishes the names of doctors whose licenses and/or prescribing privileges have been suspended or revoked due to inadequate record keeping in the prescribing of narcotic pain medications and/or who are over prescribing such drugs without adequate documentation of their necessity. In most states, medical-practice acts include not only standards for when and how to prescribe narcotics, but also the admonition that the under-

treatment of pain is as culpable as the over prescribing of narcotics and/or the over prescribing of narcotics without adequate surveillance or documentation.

ePCS actually gives all providers the opportunity to review their prescribing habits. Rather than deal directly with suspected abuse of controlled substances, healthcare providers have often attempted to put barriers in a patient's access to these medications. One policy which has been commonly used is that **a patient has to be seen in the office before a controlled substance can be refilled.** That may or may not contribute to the decrease of abuse but it also can contribute to patient anxiety when they need their medications and can't get them. Having to be seen before a controlled substance can be refilled may be a reasonable policy, but ePCS gives us the opportunity to review our prescribing habits to determine if a policy is just a method for making the acquiring of controlled substances more difficult without improving patient-care quality and safety.

If the patient legitimately needs controlled substances, they should be no more difficult to obtain that any other medication. If abuse is suspected, it is more important to directly address that than it is just to make it more difficult for patients to obtain them.