

E-SERVICES FOCUSING ON E-PRESCRIPTION

- Electronic prescribing or e-prescribing is the computer-based electronically generated prescription.
- The main purpose of e-prescribing is to replace the paper into faxed prescriptions.
- E-prescribing is meant to reduce the risks associated with traditional prescription script writing.

Functions:

- Generating a complete and an error free medication list.
- Selecting medications, printing prescriptions, electronically and transmitting prescriptions to pharmacy.
- Review patients' current medication.
- Work with an existing medication within the practice.
- Prescribe or add new medication and select the pharmacy.
- Patient-specific information capabilities(e.g., current patient medication list, access to patient historical data, patient identification).
- System integration capabilities(e.g., connection with various databases, connection with pharmacy and pharmacy benefit manager systems).
- Educational capabilities(e.g., patient education, provider feedback).

Electronic Prescribing Services:

- Prescriber - typically a physician.
- Transaction hub.
- Pharmacy with implemented electronic prescribing software.
- Pharmacy Benefit Manager (PBM).

Prescriber:

A physician or health care staff, are defined as the electronic prescribing system user and sign into the system through a verification process to authenticate their identity. The prescriber searches through the database of patient records by using patient-specific information such as first and last name, date of birth, current address etc. Once the correct patient file has been accessed, the prescriber reviews the current medical information and uploads or updates new prescription information to the medical file.

Transaction hub:

The transaction hub provides the common link between all actors (prescriber, pharmacy benefit manager, and pharmacy). It stores and maintains a master patient index for quick access to their medical information as well as a list of pharmacies. When the prescriber uploads new prescription information to the patient file, this is sent to the transaction hub. The transaction hub will verify against the patient index.

Pharmacy:

The pharmacy receives the prescription information from the transaction hub, it will send a confirmation message. The pharmacy also has the ability to communicate to the prescriber that the prescription order has been filled through the system. . Further system development will soon allow different messages such as a patient not picking up their medication or is late to pick up medication to improve patient management.

Pharmacy Benefit Manager (PBM):

The PBM and transaction hub work closely together. The PBM works as an intermediate actor to ensure accuracy of information, although other models may not include this to streamline the communication process.

Benefits:

Compared to paper-based prescribing, e-prescribing can enhance patient safety and medication compliance, improve prescribing accuracy and efficiency. More specifically, the benefits of e-prescribing to both patients and clinicians include:

- Improving patient safety and quality of care.
- Reducing time spent on phone calls and call-backs to pharmacies.
- Reducing time spent faxing prescriptions to pharmacies.
- Automating the prescription renewal request and authorization process.
- Increasing patient convenience and medication compliance.

Limitations:

Challenges and limitations that may hinder the widespread adoption of e-prescribing practices.

- Financial Cost and Return on Investment .
- Change Management.
- Hardware and software selection
- Integrity of data input
- Security and Privacy
- System Downtime.

Electronic Prescribing Worldwide:

- The use of electronic prescription has been designated as an important strategic policy to improve health care in Europe.
- Electronic prescriptions were introduced in Estonia in January 2010 and by mid-2013, 95% of all prescriptions in the country were being issued electronically.
- Other countries which use the prescription process routinely are Norway, Denmark, Finland, Sweden, the Netherlands, Iceland, Greece, England, Scotland, Wales and Northern Ireland.
- There are varying interpretations and implementations of data protection and confidentiality laws in the 27 member states.