Drug dispensing software requirements

Drug dispensing objectives

Dispensing a drug means preparing it and giving it to a patient who is the client, ensuring that the drug is pharmaceutically and therapeutically suited for the intended recommendation, and finally following up on the use of the drug by the patient.

Process of drug dispensing

In the process of dispensing drugs, each involved entity must only perform its suited actions. One entity must not, in whatever case, perform an action reserved for another entity. For instance, a nurse must not be able to perform an action reserved for a doctor such as prescribing a drug.

A pharmacist must:

1. Ensure the therapeutic and pharmaceutic suitability of a prescribed drug.
2. Review the intended use of a drug.
3. Assess if the patient is allergic to any prescribed drug; if he or she has the age for taking a drug; if any other additional check has to be performed using a patient's additional information.
4. Ensure that the prescribed drug might not have any medication interaction effect, contraindication, or therapeutic duplication, update the physician who prescribed the drug about these in case.
5. Document an allergy of a patient as soon as he discovers one.
6. Assess a potential problem that might be associated with the use of a prescribed drug.
7. Confirm if a prescribed drug can be used by a patient.

A nurse:

1. must ensure the proper use of a currently used drug; he or she has to use some data and measurements to achieve this. This is more of a follow-up.

2. can review the pharmaceutical and therapeutic suitability of a prescribed drug in the event that a pharmacist is not present, especially for drugs like painkillers and antibiotics.

3. check if the medication has not expired and update a pharmacist in case.

4. label a currently used drug and document a patient's medication history with information about:

   - the client's name and identifier
   - drug name, dosage, route, and strength
   - date dispensed
   - direction for use
   - amount dispensed
   - initials of the dispensing nurse
   - name, address, and phone number of the dispensing agency
   - name and designation of either the prescribing physician or the healthcare provider
   - any additional information

A physician or an accredited healthcare provider can prescribe a drug to a patient with information about how to use the drug such as the dosage, amount dispensed, route, strength, direction for use, and the intention for use.

Items involved in the process of drug dispensing

1. Patient
2. Physician or accredited healthcare provider
3. Pharmacists
4. Nurses
5. Drugs
6. General administrator

7. pharmaceutical company

Requirements that were initially given

i. Patients are identified by SSN, and their names, addresses, and also ages.

ii. Doctors are identified by an SSN, for each doctor, the name, specialty and years

of experience must be recorded.

iii. Each pharmaceutical company is identified by name and has a phone number.

iv. For each drug, the trade name and formula must be reordered. Each drug is sold

by a given pharmaceutical company, and the trade name identifies a drug uniquely

from among the products of that company. If a pharmaceutical company is

deleted, you need not keep track of its products any longer.

v. Each pharmacy has a name, address, and phone number.

vi. Every patient has a primary physician. Every doctor has at least one patient.

vii. Each pharmacy sells several drugs and has a price for each. A drug could be sold

at several pharmacies, and the price could vary from one pharmacy to another.

viii. Doctors prescribe drugs for patients. A doctor could prescribe one or more drugs

for several patients, and a patient could obtain prescriptions from several doctors.

Each prescription has a date and a quantity associated with it. You can assume

that if a doctor prescribes the same drug for the same patient more than once, only

the last such prescription needs to be stored.

ix. Pharmaceutical companies have long-term contracts with pharmacies. A

pharmaceutical company can contract with several pharmaceutical companies.

For each contract, you have to store a start date, and end date, and the text of the

contract.

x. Pharmacies appoint a supervisor for each contract. There must always a supervisor

for each contract

Tools and tips that could be further included for our Drug Dispensing Software

1. Dummy Medication Administration Records. *Best Medication Dispensing Software in 2023:*

2. Direct mail and marketing automation software
3. Service Desk Software with a focus on a ticketing platform.

4. A way to manage the company's digital, physical and virtual components in databases

5. ERP procedure storage

Resources

https://www.bccnm.ca/RN/learning/medication/Pages/dispensing.aspx#:~:text=Dispensing%20includes%20preparing%20and%20giving,the%20involvement%20of%20a%20pharmacist.

Compare 60+. (n.d.). G2. Retrieved April 30, 2023, from

https://www.g2.com/categories/medication-dispensing