

Computerising the Pharmacy....

(1)

? : Wide Spread Applications

Adv :

1. Large Storage Capacity
2. Speed and accuracy
3. Flexibility
4. Repetitive tasks
5. Multiple user capacity
6. Ease of dissemination and transmission.

- ⇒ Assistance to Pharmacist
- ⇒ Improved Business Information
- ⇒ Accurate Information
- ⇒ Increased Productivity
- ⇒ Improved Quality of work
- ⇒ reduced work load (↓ labour cost)

Overall Improvement for organization

Limitations

1. Computer knowledge ; Burden
 2. Structured, formal operating process
 3. Investment
 4. Conversion from Manual-Computer
- ↓
Inefficiency

Steps Involved in Computerizing

(2)

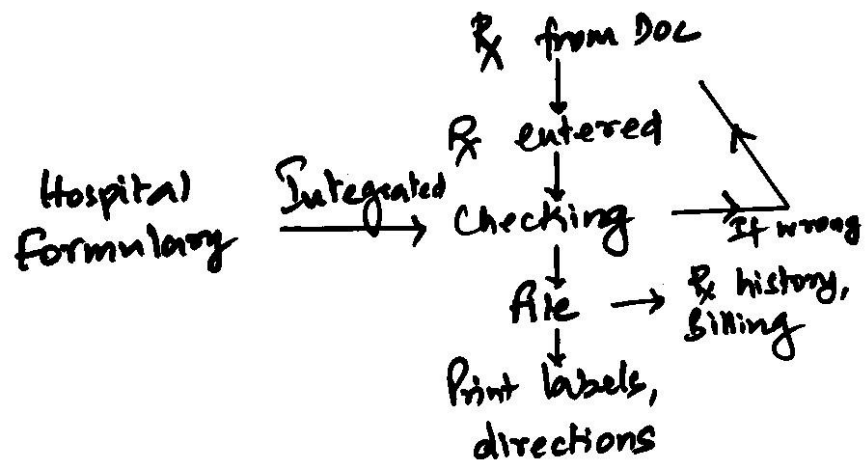
- Step 1: Prepare a job description
- Step 2: Select the software
- Step 3: Select the hardware
- Step 4: Select the vendor
- Step 5: Install and Implement computer System

Applications

1. Inventory Control
Billing, Accounting, Control, Records

Quicker
Statistics

2. Prescription Monitoring and Prescription Auditing
Process, Record, Audit, Print and
Communicate



3. Patient Monitoring

Monitoring Vital Parameters
drug delivery - Insulin Pump
Lab data

③

4. Clinical Pharmacokinetic Services

TDM

data (PK) $\xrightarrow{\text{d/m}}$ dose dosing interval

↓
Optimise therapy

dosing adjustments

5. Clinical Research

Coding of data / treatment
Statistical Analysis
Protocol Preparation
data Collection, storing

6. Computer Aided diagnosis

Using Models, decision trees, tables

↓
help for diagnosis

eg: MYCIN
PUFF
RHEUM

→ Hospital Formulary

8. Retail Pharmacy

Inventom control, Billing, Rx history,
database etc.

9. Drug Info, Literature Storage and Retrieval

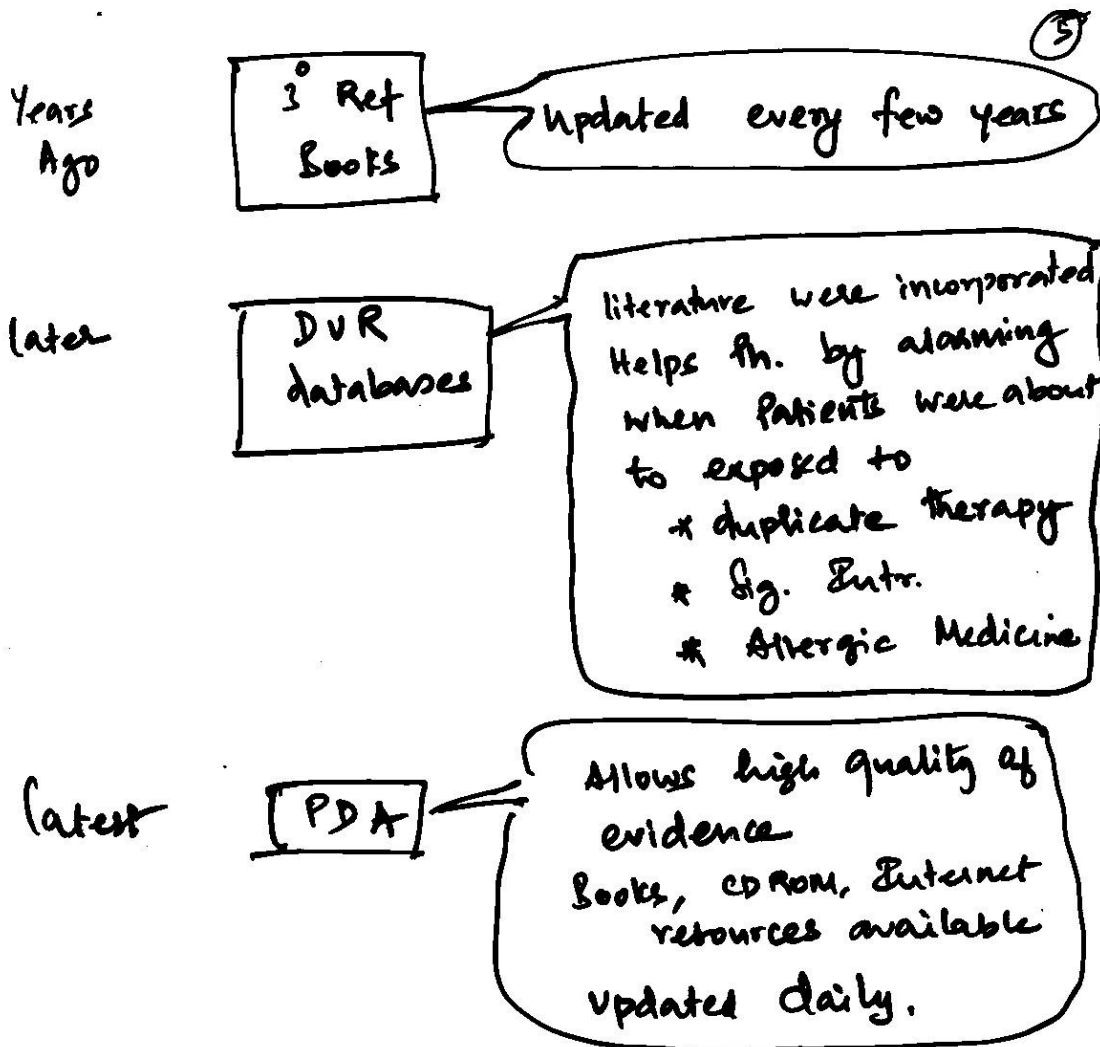
10. Internet Pharmacy

11. CPOE

- x illegible hand writing
- x Medical Errors
- x reduced Patient care

Lim

- ⇒ Data holes, incomplete Info
- ⇒ Resistance by Docs.
- ⇒ Poor implementation and Practice
- ? time



Complete Hospital Information System (HIS) ⑥

1. Patients' Med Record, Registration, Investigation, treatment history
2. Patient Appointment & follow up
3. Bed Management, Admission, discharge
4. Personnel Management, Administration
5. Inventory Control, Purchases
6. Drug Info databases, Profile, AE, Int., diagnostic test
7. DUR, Rx Analysis, Clinical Research
8. Blood Banks
9. Education & training

Application of Computers in Hospital Pharmacy ^⑦

1. Enter in patients profile
2. Monitor new drug entries by measuring drug-drug interaction program
3. Allow a technician to fill unit dose Patient boxes
4. Allow a technician to charge the Patient
5. Credit patients for medications returned to the pharmacy
6. Generate a printout of the patient's Prescription and allow to make a backup copy
7. Generate out patients profiles
8. Printout patient Rx labels
9. Maintain a perpetual inventory
10. Generate orders to the wholesalers and pharmaceutical manufacturers
11. Printout I.V labels
12. Charge for floor stocks
13. Generation of reports
 - a. Patient billing report
 - b. Patient charges on a daily basis
 - c. Inventory Adjustment Report