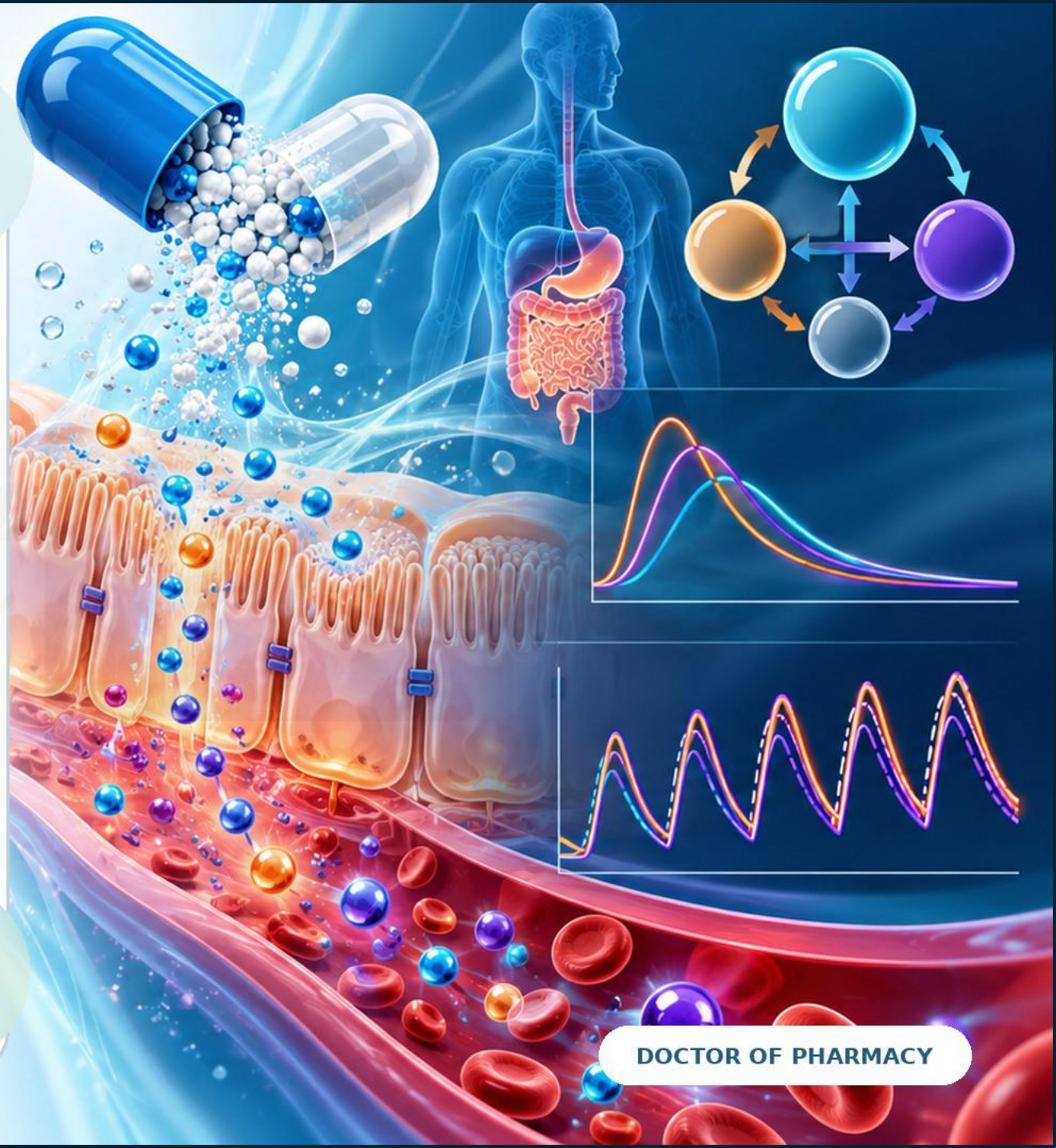
PHARM.D • YEAR 4

Biostatistics & Research Methodology

CHAPTER 3.1

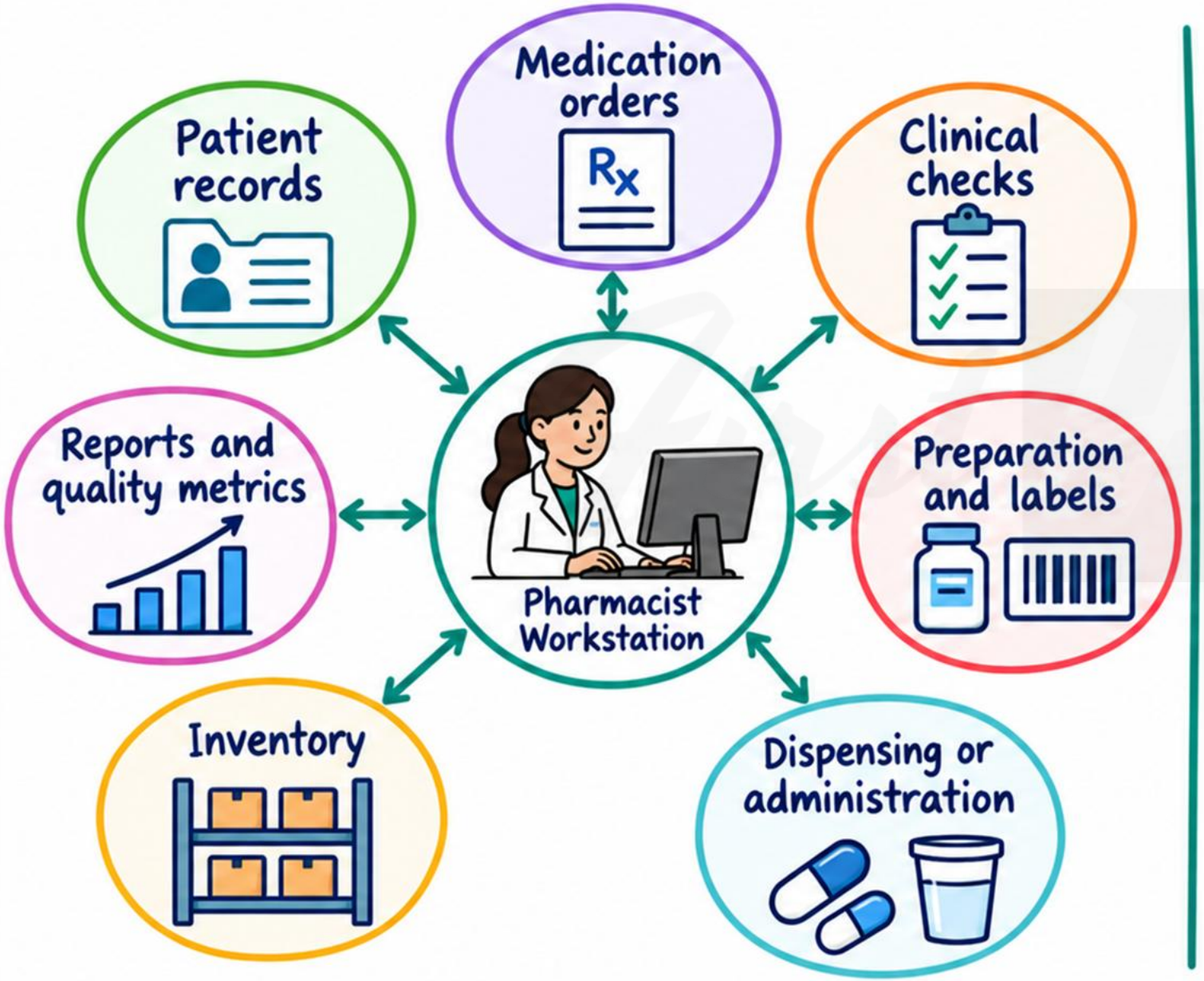
Computer Systems in Hospital Pharmacy

PPT CHAPTER COVER



DOCTOR OF PHARMACY

Hospital Pharmacy Information System



A hospital pharmacy computer system connects:
patient records → medication orders → clinical checks → preparation and labels → dispensing or administration → inventory → reports and quality metrics.

Integration gives pharmacists timely information, but alerts and suggested doses still require professional validation. Access controls, audit trails and accurate data entry support safe use.

Patient Record Database

Electronic patient records may include:

- demographics and contact details
- medical and surgical history
- allergies and adverse reactions
- current and previous medicines
- laboratory and imaging results
- treatment plans and clinical notes.



Pharmacists use the record to check new orders, coordinate with the care team, monitor adherence and support safer decisions.

Computerized Medication Order Entry

1



PHYSICIAN
enters the order electronically.

2



SYSTEM
transmits it to pharmacy.

3



- ☑ indication
- ☑ dose
- ☑ route
- ☑ allergies
- ☑ interactions
- ☑ duplication

PHARMACIST
reviews indication, dose, route, allergies, interactions and duplication.

4



PHARMACY
prepares and supplies the medicine.

5



ADMINISTRATION
and changes are documented.



Decision support may warn about hazards; standardized templates and audit trails improve legibility, speed and accountability.

Drug Labels & Formulary Control

AUTOMATED LABELS may include patient, drug, strength, directions, route, frequency, warnings, storage and expiry information.



FORMULARY DATABASE organizes approved medicines by generic or brand name, therapeutic class and manufacturer. Access rules help restrict ordering to authorized products.



Benefits:

legible, consistent labels;	faster preparation;	fewer transcription errors;	stronger formulary adherence.

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