Introduction to Medical Informatics

Electronic Health Record (EHR)
Lecture 3

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Content of This Lecture

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02 Advantages of EHRs

03 EHR Components

**04** What is (CPOE)

Electronic Health Record (EHR)
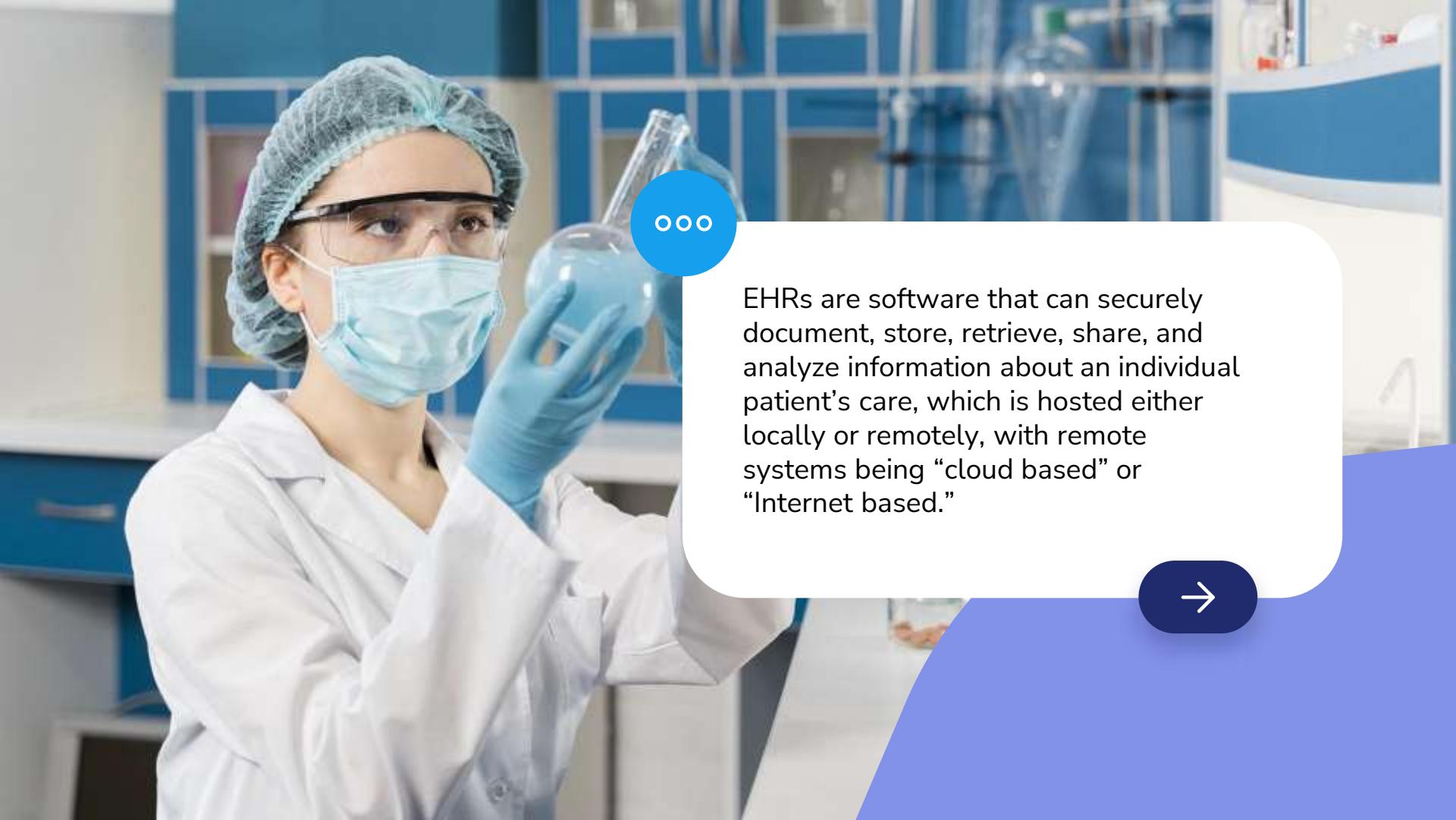
EHRs are software that can securely document, store, retrieve, share, and analyze information about an individual patient's care, which is hosted either locally or remotely, with remote systems being "cloud based" or "Internet based."

EHR

in 1991, Institute of Medicine (IOM) recommended HER as a solution for many problems

Electronic Health Record

EHR records are now being created, used, edited, and viewed by multiple independent entities including primary care physicians, hospitals,

The Computer-Based Patient Record: An Essential Technology for HealthCare.

EHR---- EMR-----PHR

EHR
Electronic Health Record

An electronic record of health-related information
that can be created, managed and consulted by authorized clinicians and staff
across more than one healthcare organization

EMR
Electronic Medical Record

An electronic record of health-related information
on an individual that can be created, gathered, managed and consulted by authorized clinicians and staff within one healthcare organization

PHR
Personal Health Record

An electronic record of health-related information on
that can be drawn from multiple sources while being managed, shared and
controlled by the individual.

HER---- EMR-----PHR

EHR

Clinical Records Only

EMR

Also includes other provider records

PHR

Also includes personal health information

01

Why do we need EHRs?

The following are the most significant reasons why our healthcare system would benefit from the widespread transition from paper to electronic health records

Paper records are severely limited.

Quality of care and patient safety.

Need for improved efficiency and productivity

- Financial savings
- Need for aggregated data
- Technological advances

Advantages of EHRs

- Viewing a more complete patient medical history, diagnoses, medications, treatment plans, immunization dates, allergies, radiology images, and laboratory test results from one or multiple clinicians.

- Accessing to evidence-based tools that can help clinical decision making.

- Automating and streamlining provider workflows

- Allowing a patient's medical information to move with them and enable physicians to stay apprised of their care with other physicians

Electronic Health Record Key Components

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1- Clinical decision support system (CDSS).
2- Secure messaging (e-mail)
3- Computerized physician order entry (CPOE)
4- Referral management
5- Practice management
6- Results retrieval
7- Prior encounter retrieval
8- Patient reminders
9- Electronic encounter notes
10- Multiple input methods
11- Access via mobile technology
12- Remote access from home
13- Electronic prescribing
14- Integration with images
15- Public health reporting
16- Problem summary lists
17- Ability to scan in data
18- Ability to graph and track results
19- Ability to create patient lists
20- Ability to create registries
21- Privacy/security compliance
22- Robust backup systems
23- Support for client server or
25- application service provider (ASP) modes

Computerized Physician Order Entry (CPOE)

CPOE is an EHR feature that processes orders for medications, lab tests, imaging, consults and other diagnostic tests.

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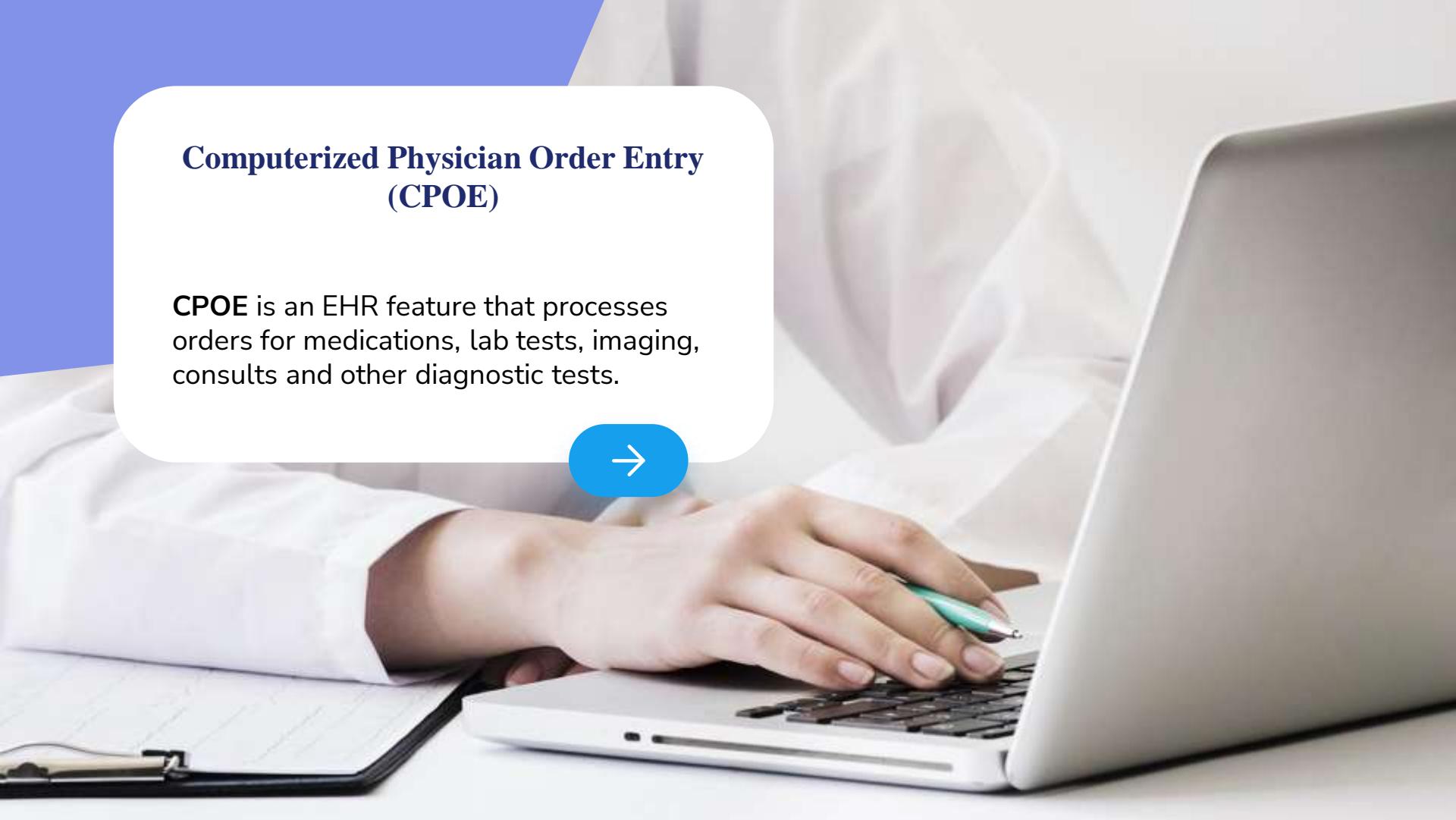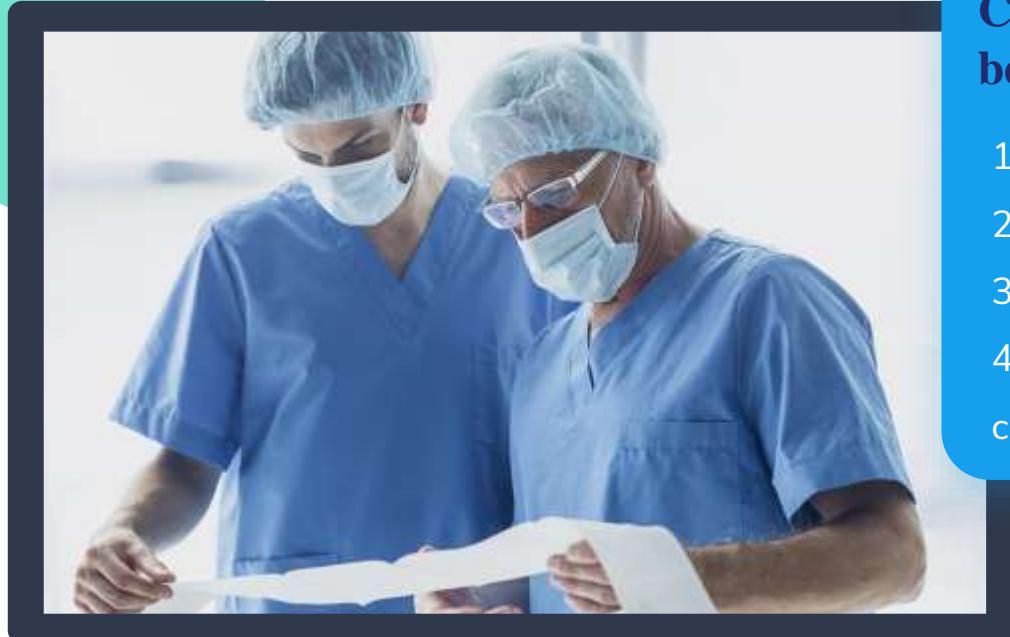
CPOE has many potential benefits:

1-Reduce Medication Errors

2-Reduce costs

3-Reduce Variation of Care

4-Unintended adverse

consequences

Thanks!

Do you have any questions?