INTRODUCTION TO THE ELECTRONIC MEDICAL RECORD (EMR)

Nursing Informatics - August 2023
Course Objectives

Purpose:
The purpose of this tutorial is to provide you with a high-level overview of the key features of Cerner Applications.

In this presentation you will learn how to:

• Log in and out of Cerner Applications
• Maintain security while logged in
• Locate and open a patient’s chart within Cerner Applications
• View patient information within the chart
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LESSON ONE: INTRODUCTION TO CERNER APPLICATIONS
Lesson One: Introduction to Cerner Applications

To begin, let’s discuss some terms that you should become familiar with:

- Electronic Medical Record (EMR)
- Eclipsys
- Epic
- Cerner Applications
- Security
Lesson One: Introduction to Cerner Applications

An **Electronic Medical Record (EMR)** is a computerized version of a patient’s physical chart.

Data such as orders, results, radiology images, and notes can be stored in an EMR.
Lesson One: Cerner Applications

When a patient arrives at a CHKD facility, they are registered in one of our Patient Management Systems, Eclipsys or Epic, to create an EMR.

The patient’s EMR can then be accessed through various Cerner Applications, such as PowerChart and FirstNet.

- **PowerChart** is used in most Inpatient and Ambulatory areas
- **FirstNet** is used in the Emergency Department and Urgent Care Centers
- **PowerChart OR** is used in Perioperative areas
Eclipsys is CHKD’s Inpatient Management system and is used to maintain admission, discharge, and transfer transactions. This includes Radiology, Laboratory, billing transactions, etc.

A patient must be previously registered or admitted via Eclipsys or Epic in order to generate an Electronic Medical Record in Cerner Applications.

Epic is CHKDHS’s Physician Practice Management system and is used for physician office and some outpatient hospital registrations, appointments, and billing transactions.

Patients for whom no Eclipsys or Epic registration records have been created will not be available from within Cerner Applications.
Lesson One: Introduction to Cerner Applications

Cerner Applications provide the capability to view visit information, view results, enter orders and medications, etc.

Cerner Applications are flexible, allowing PowerChart, FirstNet, Eclipsys, and Epic to interact with each other.

Inpatient and outpatient data is visible with Cerner Applications.
Lesson One: Introduction to Cerner Applications

To access Cerner Applications, you will need to enter your **Username** and **Password**. Your login information serves as your electronic signature and tracks your activity as you access records in our systems.
Security & Password Considerations

The **FIRST TIME** you log in, enter your username and password. You will then be prompted to change your password. Passwords are an important aspect of computer security. A poorly chosen password may result in the compromise of the entire corporate network.

- A unique password is required for all accounts
- Minimum Length - 8 characters recommended
  - Upper case characters (A-Z)
  - Lower case characters (a-z)
  - Digits (0-9)
- When changing passwords again later, the user should not re-use prior passwords

**Never** write your password down.

**Never share your password with anyone!**
Cerner Application Access Features

Depending on the workstation, Cerner Applications can be accessed in the following ways:

1. Zero Client
2. Virtual Desktop (VMware)
3. Citrix
Using The Zero Client

The Zero Client appears in most Nursing Stations and patient rooms as a standalone monitor, mouse, and a keyboard. There is not a separate hard drive device with Zero Clients because they communicate with the server when you log in.

When powered up, the login screen appears for you to enter your username and password.
Using The Zero Client

After entering your username & password, this desktop will appear (on the initial login for the day it will take approximately two minutes for the Zero Client to load; subsequent logins for the day will only take a few seconds).
Using The Zero Client

Once the initial desktop appears, it will take another 30 seconds for the CitrixCerner icon to appear.
Using The Zero Client

Double-click on the CitrixCerner icon to access Cerner Applications that are available to you based on your role, then double-click on the desired application icon to open the application.

Note: Zero Clients use pass-through functionality, so once you are logged into the Zero Client, you will not be prompted to log into the Cerner application.
Disconnecting from the Zero Client

When you have finished using the Zero Client in the patient’s room or at the nurse’s station but wish to log in to the same application somewhere else, leave the application open and click the **Disconnect** button in the taskbar. Any applications you were using will open at the next Zero Client you log into.
Zero Client Badge Readers

Most Zero Clients also feature badge readers which allow users to ‘tap’ or ‘badge’ in and out of the Zero Client as needed instead of clicking Disconnect. For example, as you leave one patient’s room you can tap out of that computer and when you enter the next patient’s bedside you can tap into that bedside computer. Any applications you were using on the last computer will open on your new computer location.
Logging off from the Zero Client

When you have finished working with an application for the day, properly Exit the application (this will be discussed later in the tutorial), then select **Sign out** from the Start menu.
The option for **VMware View** appears on selected PC desktops and is a method of accessing necessary applications. VMware View uses the same technology as Zero Clients. Therefore, if you are logged into a Zero Client in a patient’s room and disconnect, you can access the same record from VMware View on a PC by clicking on the VMware View icon.

- Double-click the VMware View icon on the computer desktop.

- Double-click on the Cloud to connect.
Accessing Cerner Applications via Virtual Desktop (VM Ware)

- When prompted, enter your Username and Password, and press Enter or click on Login.

- Double-click on the **Double Hop** icon to open the correct domain.
Accessing Cerner Applications via Virtual Desktop (VM Ware)

The VMware desktop will appear.

Note, this is the same initial desktop you saw on the Zero Client. You will need to wait another 30 seconds for the CitrixCerner icon to appear.
Accessing Cerner Applications via Virtual Desktop (VM Ware)

Double-click on the CitrixCerner icon when it appears to access Cerner applications that are available to you based on your role.

**Note:** If you forget to Disconnect from the Zero Client and attempt to connect via VMware View, the system will automatically disconnect you from the Zero Client.

**Note:** It is strongly recommended that you do not log in to Citrix and VMware View or a Zero Client at the same time.
Accessing Cerner Applications via Citrix Storefront

If necessary, you may also access Cerner Applications by clicking on **Citrix Storefront** in KDnet under **Popular Links**, then log in to the Citrex Web Interface.
Accessing Cerner Applications via Citrix Storefront

After you have logged into Citrix, the Citrix Workspace Home screen opens. Click on the appropriate icon to open the desired application.
Accessing Cerner Applications – Questions?

If there are any problems accessing Cerner Applications or if you do not know your login credentials, contact the IS Help Desk at 668-7075.
LESSON TWO: ACCESSING PATIENT RECORDS
Accessing Patient Records in Cerner

After logging into a Cerner Application, you can access patient charts. To access a chart, conduct a patient search.

- Select **Search** from the Patient menu
- **or**
- Click on the search icon within the Organizer

Both actions will open the Patient Search Window.

There is also a drop down box where you can elect to search by MRN, Name, or FIN.
Conducting a Patient Search

When the Patient Search window appears, begin the search for your patient.

The MRN is the fastest and most direct method of searching for a patient. However, you can also search for a patient by entering information in the Name, FIN, SSN, Birth Date, Age and/or Gender Fields.

Searching by the FIN number will take you directly to the correct encounter or visit date associated with that number.
Conducting a Patient Search

After you conduct a patient search, all matching patients will display at the top of the screen. The selected patient’s encounters will display at the bottom of the screen. Double-click the appropriate encounter to open the chart. **Ensure that the appropriate Encounter (Visit) is selected.**
You can also search for a patient using the **Recent** button within the Organizer. The **Recent** button will display the names of the last nine charts that you have accessed. Single click on the desired patient to open their chart.
The first time you access a patient’s chart, you will be prompted to **Assign a Relationship** with the patient.

Select your appropriate relationship from the selections listed. Anytime you are accessing a patient’s chart for anything other than patient care, select *Administrative Review*.

If you do not establish a relationship, you will not be able to open the patient’s chart.

**IMPORTANT**: Please adhere to hospital policies regarding HIPPA compliance. When you establish a relationship with the patient within the application, your name will be listed in the Patient-Provider Relationship (PPR) Summary in PowerChart.
LESSON THREE: VIEWING THE PATIENT’S CHART
Viewing a Patient’s Chart

- The **Patient Demographics Bar** (also known as the *Banner Bar*) provides information such as patient name, age, DOB, sex, Location, Medical Record Number, and Financial Number.

- The Demographics Bar also displays recorded Allergies, Isolation Precautions, and the patient’s Clinical (Dosing) Weight.

- Hyperlinks, indicated by an underline, can be accessed by a single click of the mouse and will take the user to additional information.
Viewing a Patient’s Chart

The **Refresh/minutes ago button** is used to ensure that you are viewing the most up-to-date patient information.

‘**Minutes ago**’ indicates the last time the displayed information was refreshed. Click the button to update the information.
The **Toolbar** gives you quick access to certain functions & tools within the application, such as Patient List.

**Patient List** – helps users organize and easily access large amounts of patient data. Patient lists are created by the user based on customized criteria, patient location, or provider relationship.
Toolbar

Additional items found in the **Toolbar:**

- **Clinical Calculator** – calculator tool that also provides values for various clinical formulas
- **Encounter Location History Viewer** – used to locate a patient’s specific encounter and track the patient’s location within the visit
- **Medical Resources & Nursing Resources** – provides you a direct link to commonly used resources on KDnet, such as nursing policies, Lexi-Comp, Med Code Sheet, etc.
Viewing a Patient’s Chart

Let’s take a look at some of the available chart tabs within the EMR.

Keep in mind that many options are security-driven, so all displayed options in the Menu may not be available to you.
Within the patient’s chart, Chart Tabs appear on the left side of the screen in a collapsible Menu.
Viewing a Patient’s Chart

• You can elect to hide the Chart Tabs that display on the left side of the screen by pressing the pushpin icon which collapses the menu.

• By default, the icon appears pointing downward. This indicates that the menu will display in a normal manner on the left side of the screen.
Viewing a Patient’s Chart

- The Backward button allows you to access previously selected tabs within the patient’s chart.

- The Forward button moves you ahead to tabs you have accessed in the patient’s chart prior to clicking the back button.

- The drop down allows you to quickly access up to the last fifteen selected tabs.

- The Home button returns to your defaulted chart tab.
Viewing a Patient’s Chart

The **iView / I&O** tab is the section of the chart that is used to enter and view various types of results (such as Intake & Output, Vital signs, and Assessment).

Those with training and security will be able to document on the iView (Interactive) flowsheet.
Viewing a Patient’s Chart

Clinical documentation can also be completed in a PowerForm. The Form Browser tab window displays a directory tree of completed PowerForms for the selected patient. You can open a form to view the information by double-clicking on it. Those with security access can also edit forms.
Viewing a Patient’s Chart

The **PowerOrders** tab is used to view orders and order information. Also, those with the proper classroom training and security can enter orders from the PowerOrders tab.
Viewing a Patient’s Chart

The **Nurse View** tab is used to view information contained in various Workflow Mpages, such as Handoff, Discharge, and Sedation workflows.
Viewing a Patient’s Chart

The **Summary Views** tab pulls information from different areas of the chart into a single convenient view, including information such as problems documented in the Problem List, Diagnoses, Allergies, Measurements, Vital Signs, Intake and Output, and recent lab results. Click the hyperlinks to display recent results. Depending on your security access, you may see subtabs to the various summary pages (Inpatient, Ambulatory, etc.)
Viewing a Patient’s Chart

The Results Review Tab is a flowsheet of documented result information, including Lab results, Radiology results, and Patient Care results (clinical documentation).
Viewing a Patient’s Chart

- **Summary Documents** – allows you to view pertinent clinical documents, such as operative reports or H&Ps.

- **All Documents** – displays all clinical documents that have been entered for the selected patient, such as Emergency Room reports, visit notes, and procedure information.

- **Physician/All Documents (View)** – displays a listing of all documents, sorted by date. Select a document and a preview will automatically display.

- **Patient Information** – contains Patient Demographics, Visit list, and Patient Provider Relationship (PPR) Summary.
Viewing a Patient’s Chart

The MAR Summary tab displays a condensed view of medication administration information to give the user a high-level overview of the medications that are prescribed for the patient. It will mainly be used by physicians and by nursing staff during change of shift report.
Viewing a Patient’s Chart

- **Allergies** – this tab allows you to view all allergies recorded for the patient, and update as necessary (based on security)

- **Medication List** – enables you to view all documented medication therapies for the patient; based on your security, you will be able to update the patient’s home medication list in *Document Medication by History*

- **Problems and Diagnoses** – provides a view of this information entered by designated roles, such as Infection Prevention & Control and Physicians

- **Histories** – has two sub-tabs: *Procedures* and *Family* history
Viewing a Patient’s Chart

- **Immunization Forecaster** – provides a dynamic view of suggested and upcoming immunizations and records historical immunizations and exceptions

- **Advanced Growth Chart** – provides a graph of the child’s growth compared to the national standard

- **Overview** – provides a summary of charted data that has been recorded since the last time you selected the *Date/Time Stamp* button

- **Appointments** – a view-only tab that displays future and past appointments
Viewing a Patient’s Chart

- **Inpatient QuickNotes** – allows you to access the QuickNotes PowerForm. This form contains information such as Nickname, Password, Clinical Reminders, Devices, and Contact Information.

- **Chart Search** – allows you to search for items within the patient’s chart.

- **Referral Agencies and DME** – displays home care services from all encounters/visits.
Let’s review the ways you can secure your workstation on a Zero Client, VMWare (Virtual Desktop), and Citrix…
Securing your Workstation via Zero Client or Virtual Desktop

Anytime you access Cerner Applications (PowerChart, FirstNet, etc) via the Zero Client and you need to move away from your workstation, you should **Disconnect** to ensure that your workstation is secured.

**Note**: When in a Cerner Application, **do not use** the *Suspend* button or as this can cause hung sessions and system issues. Click Disconnect or badge out.
Exiting a Patient’s Record and Logging Off

1. If you are going to Log Off the system, be sure to exit any patient records you may have open by clicking on the X in the name window located directly above the patient’s name in the Banner (Patient Demographics) Bar.

2. Exit the application by clicking on the Exit icon on the toolbar, or by clicking on the Task menu and selecting Exit. Do not use the “x” in the top right corner as this causes hung sessions on the Zero Clients.

3. Don’t forget to click Sign Out from the Start Menu at the bottom of the screen when you have finished working for the day!
The End

Congratulations!
You have completed this tutorial!