Intro Level SimEMR® Use Cases

4.3 ADVANCED PROVIDER PROGRAMS

Introduction

This lesson will introduce learners in advanced provider roles (MD/PA/NP) to the inner workings of an electronic medical record system while reviewing and managing a patient case. Learners will review basic order entry, data review, and clinical assessment documentation. The forms and documents within SimEMR®, a system designed exclusively for charting in a clinical simulation context, are a representation of charting elements included in real-world EMR systems.

Learning Objectives

- Navigate components of SimEMR®
- Engage with common medical terminology in an EMR
- Perform basic documentation in an EMR
- Practice basic Provider Order entry
- Incorporate diagnostic testing and review to support clinical decision making

Resources Needed

- SimEMR® login
- Internet access
- Web capable device

Content

- Introduction to common healthcare provider documentation using SimEMR®
- Patient case review

Teaching Strategies

- Tutorial review
- Review of information
- Hands on practice
- Documentation of clinical data

Time

- *15-20 minutes:* Administration: Patient Profile creation
- *20 minutes:* Learner practice
- *10-15 minutes:* Review & evaluate learner work

Patient Case & Scenario Overview

ADVANCED PROVIDER PROGRAMS

Patient Profile Name: Anthony Palermo   **DOB:** 06/01/1959

Scenario: Mr. Palermo is a 61-year-old male who presents with possible gastroenteritis. He reports a 3-day history of nausea, vomiting (occurring occasionally) and watery diarrhea (occurring at least 4-5 times daily). He and his wife attended a local outdoor gathering recently and he thought he had gotten food poisoning. Symptoms have not relented; upon arising today, he became lightheaded, and his wife insisted he be seen. He states he did continue his anti-hypertensive as able. He presents to the Emergency department for evaluation.

Profile Overview: The following patient case includes an overview of the scenario, an overview of learner objectives, and administrative steps required to get started. As you review these materials, bear in mind some similar terms. Patient Profile refers to the electronic patient in SimEMR®. Patient case refers to your overall scenario that uses that patient profile.

Profile Objectives: Acclimate the Advanced provider learner to common documentation practices within an Electronic Medical Record, SimEMR®.

Applications for learners, will include, but are not limited to:

a. Introduction to an EMR: Identifying the importance of using one as well as safety factors

b. Navigate the components of SimEMR®

c. Engage with common medical terminology in an EMR

Patient Profile - Anthony Palermo

Getting Started

1.   Review the Patient Kit Addendum on pages 10 – 12.

2.   Create the Patient Profile in SimEMR®.

   Refer to the How To: Create a Patient Profile guide for more detailed directions. Overview instructions to create a patient profile are as follows:

   a. At the SimEMR® login screen enter your username and password. Select **[LOGIN]**.

   b. On the dashboard, select either the **[PATIENT PROFILES]** button, or **[PATIENT PROFILES]** in the left side menu.

   c. Click **[➕ CREATE NEW PATIENT PROFILES]** in the top right.

   d. Enter Anthony Palermo information. Select **[CREATE]**.

   e. Navigate to your newly created patient, and select the **[⚙]** on the patients row. Select **[🚩 PERMISSIONS]** from the dropdown menu.

f. Uncheck the *Locked* box. Select **[SAVE]**.

g. Navigate back to Anthony, and select the **[⚙]** on the patient row. Select **[🚩 EDIT]**.

h. Select **[➕ ADD NEW FORM]**. to add all forms according to Anthony's Patient Kit.

3.   Identify learner objectives.

4.   Create a course to assign the newly created profile to. If you are adding it to an existing course, move to step 5.

Refer to the SimEMR® Quick Start guide pages 2 – 4 for more detailed directions. Overview instructions to create a course are as follows:

a. On the dashboard, select either the **[MANAGE COURSES]** button, or **[MANAGE COURSES]** in the left side menu.

b. Click **[➕ CREATE NEW COURSE]** in the top right.

c. Enter relevant course information and select **[CREATE]**.

d. Navigate to the newly created course, and select the **[⚙]** on the course row. Using this menu, you can add learners, instructors, and edit the course.

5.   Assign the patient profile to learners.

Refer to the SimEMR® Quick Start guide pages 10 – 14 for more detailed directions. Overview instructions to assign a patient profile to learners are as follows:

a. On the dashboard, select either the **[PATIENT ASSIGNMENTS]** button, or **[PATIENT ASSIGNMENTS]** in the left side menu.

b. Select the course you are assigning Anthony to. Click **[SELECT COURSE]**.

c. Locate Anthony and select **[CONTINUE TO NEXT STEP]**.

d. Select simulation time. Click **[CONTINUE TO NEXT STEP]**.

e. Add any additional goals and options to the profile. Click **[CONTINUE TO NEXT STEP]**.

f. Select **[CONFIRM ASSIGNMENT]**.

6.   After learners have completed the assigned patient, review their work.

Refer to the SimEMR® Quick Start guide pages 17 – 18 for more detailed directions. Overview instructions to review learner work are as follows:

a. On the dashboard, select either the **[LEARNER'S WORK]** button, or **[LEARNER'S WORK]** in the left side menu.

b. Click **[REVIEW BY PATIENT]** to review all learners in the course at once. Click **[REVIEW BY LEARNER]** to review individual learners.

Learner Assignment: Patient Profile - Anthony Palermo

This lesson will introduce the advanced practice learner to adding clinical assessment data to SimEMR®. Common terminology and experiences will be provided. The forms and documents within SimEMR®, a system designed exclusively for charting in a clinical simulation context, are a representation of charting elements included in real-world EMR systems.

This lesson will focus on creation and review of provider order entry in SimEMR® to help clinicians gain knowledge and skills in order development for accuracy and investigative review of treatment. Learners may recognize the variance to other commercial EMR products they have experienced.

Learning Objectives

- Identify the importance of using an EMR
- Safety factors required of an EMR
- Navigate the components of SimEMR®
- Engage with common medical terminology in an EMR
- Perform basic documentation in SimEMR®

Resources Needed

- SimEMR® login
- Internet access
- Web capable device

GENERAL INFORMATION

EMR BENEFITS

Clinical documentation and record retention are critical facets of health care. The ability to easily locate information is often hampered by inability to locate past data, missing pages in the chart or legibility issues when confronted with a paper medical record.

One of the key benefits of using an electronic health record is the ability to find information centrally located in one document, rather than through multiple paper records in various locations. The development of Computerized Physician Order Entry (CPOE) has enhanced expediency and accuracy of care, but still has some limitations based on the providers capability of utilizing the system to its best benefit.

While real EMR documentation programs are variable in format and presentation, the ability for learners to practice the process of data search and documentation inclusion into an electronic record will provide basic repetitive practice which can be used in any format.

EMR REQUIREMENTS

Patient safety and security of data are two key variables required in any EMR format.

The ability to maintain patient confidentiality is critical. The U.S. Congress enacted the Health Insurance Portability and Accountability Act (HIPAA) in 1996 in order to protect private healthcare and medical information for patients.

Some required safety factors included in any EMR include access restrictions to the program, individual logins, and timeouts for inactivity in attempts to limit inappropriate access to a person's personal information.

Learner Actions: Introduction to an Provider Order Entry

Following your instructor's guidance, you will proceed to gain access to SimEMR® to investigate medical record information. Prior to moving forward your instructor will have provided you instructions on how to create your account as a new user in SimEMR®. You must have an individual account to access the product (this is a security feature).

1. Open SimEMR® in a web browser.

2. At the login screen, enter your username and password. Select **[LOGIN]**.

3. If needed, review the tutorial options presented in the *Tutorial* tab.

4. Review and familiarize yourself with the interface and content.
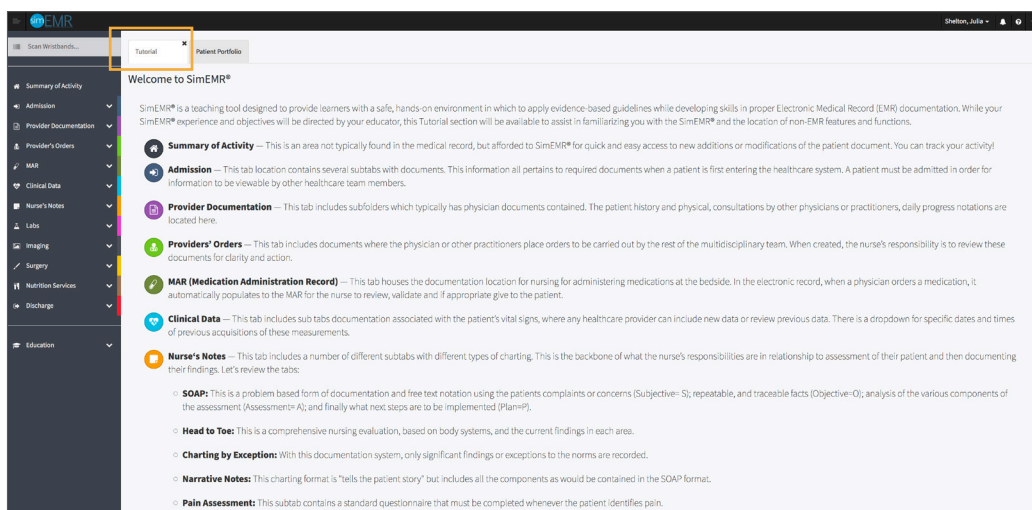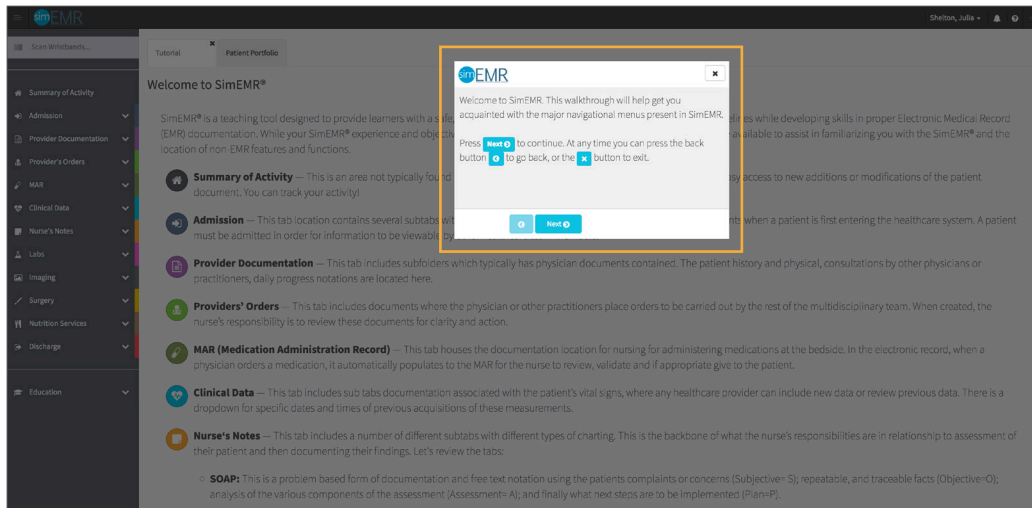
5. Locate the *Patient Portfolio* tab. This will house any patient profile records assigned to you. Current assignments will be presented at the top of the page, any past completed assignments will be located at the bottom of the page for reference and review at any time.
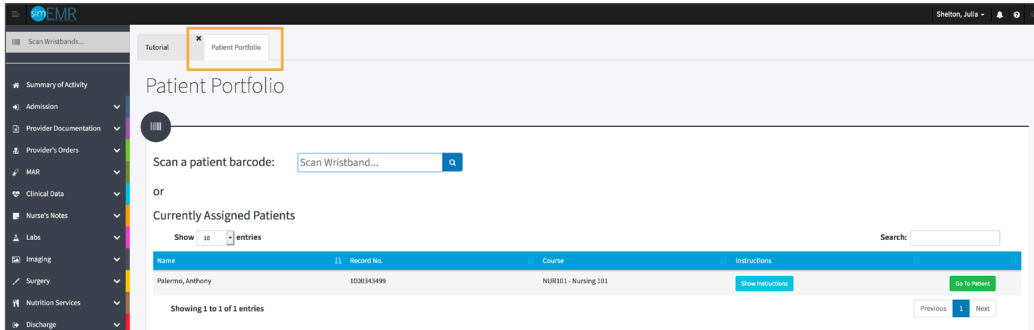
6. Locate Anthony Palermo and select **[GO TO PATIENT]**.
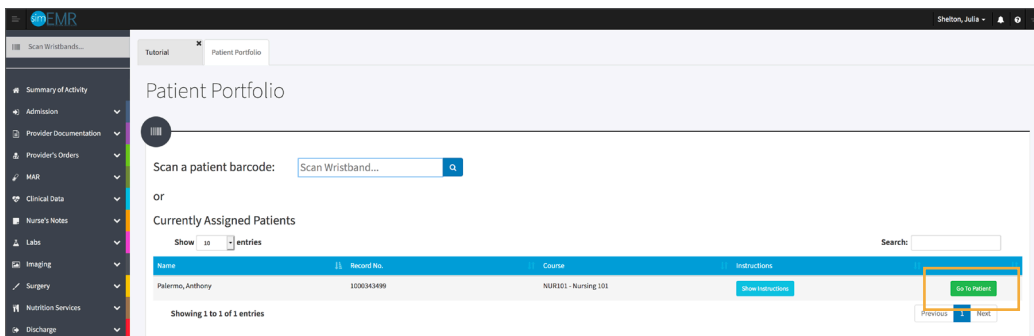
7. You will be redirected to the *Summary of Activity* page, which includes any recent changes or additions to the patient profile history. To review a new piece of data, click the **[VIEW]** hyperlink at the far right on any document listed.
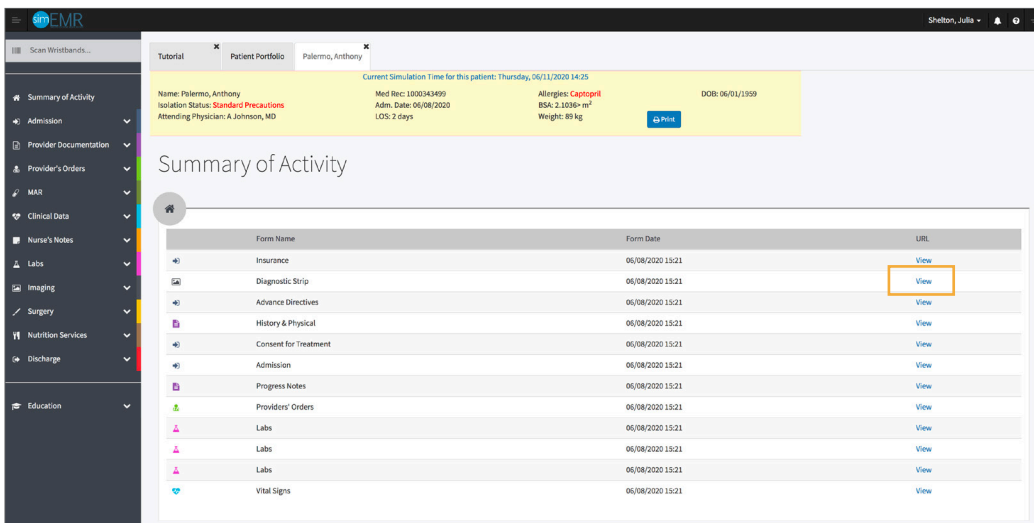
8.   Validate Anthony Palermo is the chart you are working in.

Note that Mr. Palermo was recently admitted to the Medical Surgical Unit and may not have a full healthcare record as of yet.

9.   Click **[PROVIDER'S ORDERS]** from the left menu and then select **[PROVIDERS' ORDERS]**. The form reveals a provider order document completed by the initial treating physician.

Date: the date the order form was created, there is a dropdown for locating additional orders that may have been created

Order Date: the date of order initiation, defaults to current date and time, but can be used to create future dates that the provider order should be initiated

Start date: this can be utilized for current or future date options

End date: this date puts a time limit on specific therapies, most commonly, a drug treatment order such as antibiotics that may only need a 3-day administration; as Mr. Palermo has just entered the hospital, he does not have any time limited orders as of yet

Order Details: a free text box where the provider can include communication information; admission order, diagnosis, code status, activity, diet, lab work, and Nursing Sensitive Indicators (care requirements for the nursing staff to carry out) are items that can be included here

Note, in SimEMR®, Medication orders are not included here, as they will not be transposed for the Nurse and Pharmacist to validate and proceed with their required tasks
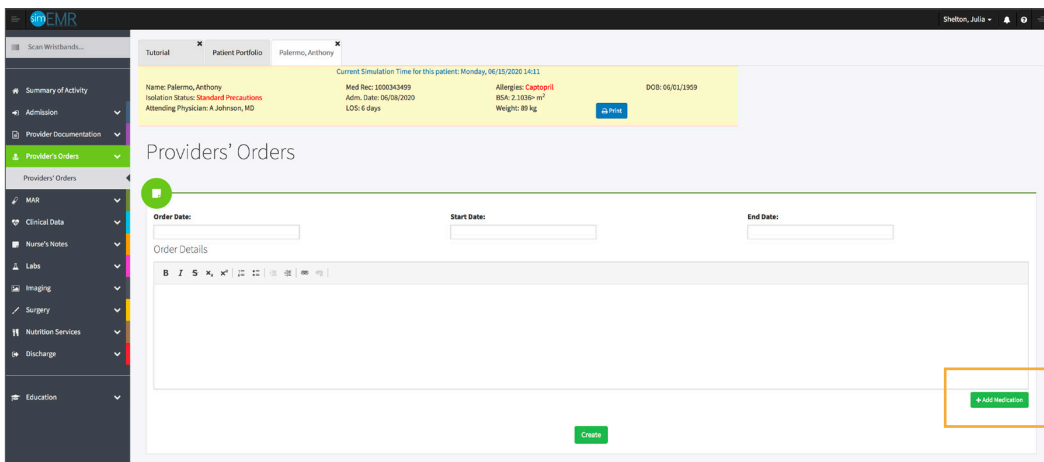
Under the Order Details box, you will see individual boxes that identify a medication prescribed for Mr. Palermo; these items may be modifiable, depending on how your instructor set the parameters for the orders. Mr. Palermo has three prescribed medications.
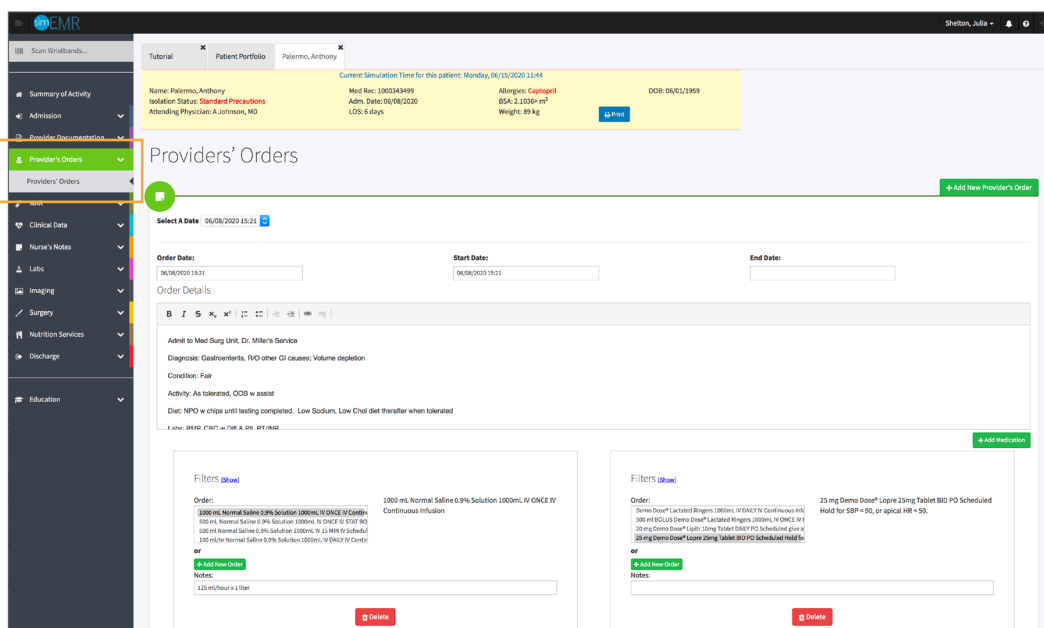
10.   Click **[+ ADD NEW PROVIDER'S ORDER]**.
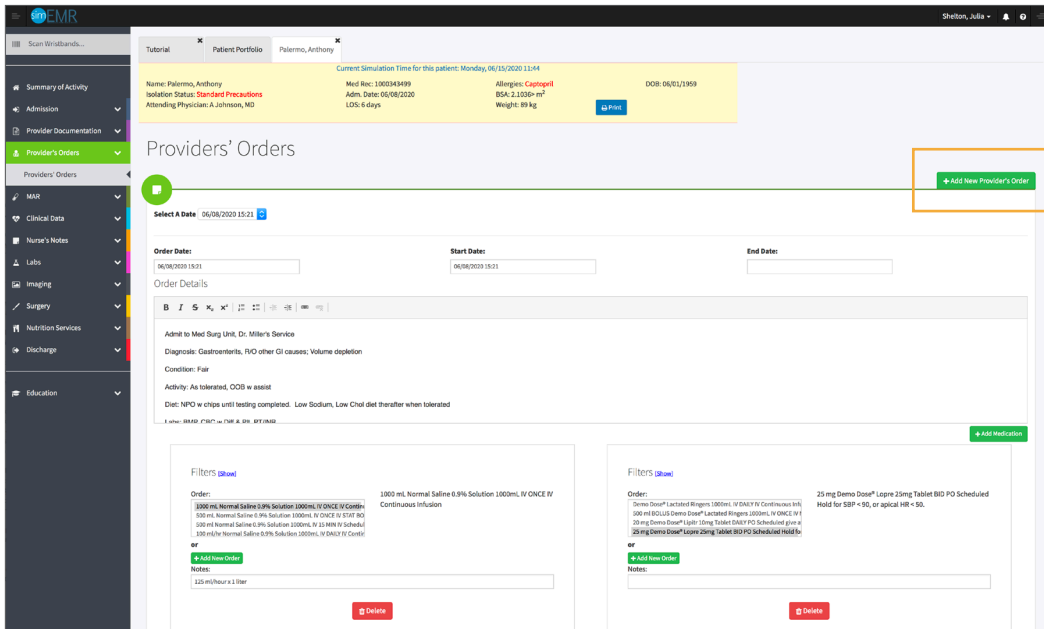
11.   You will be redirected to an order form. Click **[+ ADD MEDICATION]**.

12.   Click in the *Order Date* field and use the current date and time.

13.   Enter any desired *Start Date* and *End Date*.

14.   Enter "Mr. Palermo needs a Urinalysis as part of admission data" in the *Order Details* free text box. Include any other order communications you desire for practice.

15.   Click **[+ ADD MEDICATION]**.

Note in the box that populates a list of all of the medication orders in the SimEMR® formulary that can be potentially ordered for a patient. Filters are made available for medication ordering by clicking **[SHOW]**. There is a list of generic medication names as well as a list of the brand or trade name medications. Filtering is useful to limit medication options as there can be hundreds of orders.

If an order is located as viable, modifications can be made at this time by adding notes or selecting **[➕ ADD NEW ORDER]** which is helpful for dose or timing alterations for the desired medication.

16. Mr. Palermo notes that his arthritis is causing him difficulty. Enter an order for Acetaminophen, 650 mg, PO every 6 hours PRN.

17. Click **[SAVE ORDER]**.
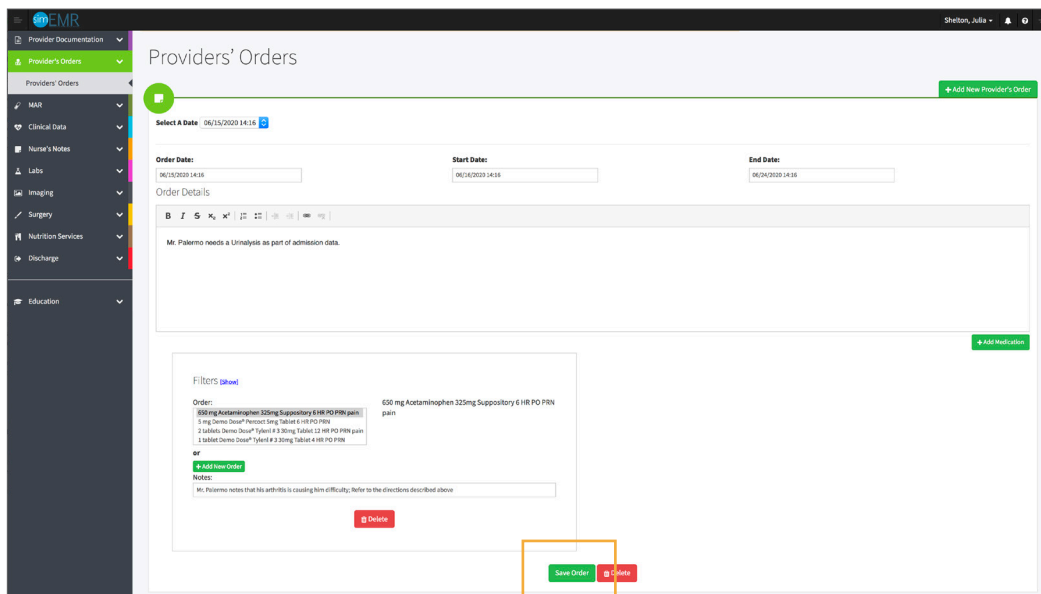
18. Add new medication orders to gain comfort.

19. Close the patient chart by clicking the X on the *Anthony Palermo* tab.

20. Logout by locating the dropdown with your name at the top right of the page, select *Sign Out*.

Patient Kit Addendum

ANTHONY PALERMO

Name: Anthony Palermo

DOB: 6/01/1959 **Gender:** M x F__ **Age:** 61

Race: Caucasian

Weight: 89 kg/195.8 lbs **Height:** 179 cm/5'10"

Religion: Methodist

CODE STATUS: Full **Advance Directive:** Y x N__

Major Support: Josie, wife

Phone: 654-999-0000 **Isolation Status:** Std Precautions

Allergies & Reactions: CAPTOPRIL: Shortness of breath and tongue swelling.

Immunizations: Childhood only

Attending Physician/Team: Andrew Johnson, MD

Primary Diagnosis: Gastroenteritis, hypovolemia

History of Present Illness: Patient states 3-day history of abdominal pain accompanied by nausea, occasional vomiting, and watery diarrhea. States no dietary changes recently, but did attend an outdoor gathering where food was served. He thought it was food poisoning and would pass, but symptoms have not relented.

PMH: Hypertension, Osteoarthritis

Surgeries/Procedures: NONE

Social History: Married to wife Josie Palermo for 39 years, 2 children not living in the home. Denies tobacco and drug use. Rare social alcohol use, "2 beers monthly." Couple live in a single story home in local area.

Data: Blood pressure: 98/50, Heart Rate: 100, Respirations: 20, Temp: 38.8° C

Review of Systems:

CNS: PERRLA, follows commands. Denies visual or auditory changes recently. No fall history. Ambulation not tested but patient walked into triage on his own. Hand grasps and pedal pushes = in strength. Admits to some occasional hip & knee pain due to arthritis. **Pt became lightheaded this am when arising,** prompting wife to bring him in for evaluation. No history of lightheadedness prior to this event.

Cardiovascular: Regular rate and rhythm, extrasystoles noted. Peripheral pulses = throughout and weak. No edema noted. Denies chest pain prior to event or current. Skin intact without abrasions. Capillary refill delayed at 3+

Pulmonary: Lungs clear to auscultation, no oxygen in use presently. Denies cough or shortness of breath during event.

Gastrointestinal: Abdomen rounded, slightly tender to palpation in lower quads. Hyperactive bowel sounds noted in all quads. States initial event started with nausea, and progressed to frequent watery stools 4-5 x day. Tolerating small fluids initially and has been taking his antihypertensive when able. Attended picnic and anticipated food poisoning was cause of this, but that was 4 days ago.

Hepato/Renal: States voids without difficulty

Endocrine: No history of diabetes or thyroid issues

Hematologic: Non-contributory

Musculoskeletal: Hand grasps = and full strength, dorsi-plantar flexation is equal and full.

Integumentary: Skin is warm and dry, intact without bruising or abrasions noted

Developmental: N/A, well developed male, behavior is appropriate to situation

Psychological: Noncontributory at present

Current Medications:

Patient verbalized medications

Medication (Generic/Trade)	Dose Available	Dose Ordered	Route	Frequency	Parameters/ Instructions	Provider Ordering
Metoprolol (LOPRESSOR)	25 mg	same	PO	2x Daily		Johnson
Aspirin (baby)	81 mg	same	PO	Daily		Johnson

Laboratory Values, Radiology, or Diagnostic Testing:

Arterial Blood Gas	Chemistry	Chemistry	Hematology	Microbiology	Toxicology
pH:	Na:	AST:	WBC:	Blood C/S:	Dig:
paO2:	K:	ALT:	Hgb:	Urine C/S	ETOH:
pcO2:	Cl:	Amylase:	Hct:	Sput C/S	Opiods:
HCO3:	Co2:	Lipase:	Platelets:	VRE:	Coc:
BE/D:	BUN:	Tot Prot:	ESR:	MRSA:	Amph/Meth:
Lactate:	Cr:	Albumin:	Other:	C-Diff:	PCP;
PA Sat:	Ca:	LDL:		GNR:	THC:
Coagulation	Mg:	HDL:	**Other Tests**	MDRO:	Lidocaine:
PT:	Phos:	Trig:	CBS:	VDRL:	MetHgb:
PTT:	Gluc:	CPK total:		GBS:	
INR:	HgA1C:	CPK MB:			
d-Dimer	Lactate:	Troponin:			

CXR:

US:

ECG: Pending Order

CT/MRI:

EEG:

Other:

SimEMR® Forms

Below contains an explanation of how the patient is entered into SimEMR®, as well as the reasoning behind each of the patient forms created as a part of that process.

LAB TIP ⓘ

Simulation Start is the time the student first begins the encounter. This notation is part of SimEMR's innovative SimTime™ system. *Simulation Start* will be replaced in the patient's chart by whatever time the encounter begins, and all other dates are described relative to that time. For example, if an encounter begins 04/15/2017 at 13:00, an event with a time of 1 day before simulation start would display a date of 04/14/2017.

At *Simulation Start*

Purpose: All activities are designed to allow the learner to evaluate initial findings

Insurance

Description: All insurance information is documented including the patient name, address, employer and employer phone

Diagnostic Strip

Description: A Diagnostic Strip report is available

History & Physical

Description: All *Past Medical History, Review of Systems* and *Social History* fields are complete

Consent for Treatment

Description: Shows the patient and witness have signed the form

Admission

Description: Info selected include *Standard Precautions* check box under Isolation Status, the admitting physicians and diagnosis, as well as *Patient Information*

Progress Notes

Description: The patient's status is documented

Provider's Orders

Description: Order for 25 mg Demo Dose® Lopre 25mg Tablet BID PO Scheduled Hold for SBP < 90, or apical HR < 50., 1000 mL Normal Saline 0.9% Solution 1000mL IV ONCE IV Continuous Infusion, and 4 mg Demo Dose® Ondansetrn (Zofrn) 2mg Injection 12 HR IV PRN Nausea

Labs

Description: Chemistry, Hematology, and Coagulation labs were all documented

Vital Signs

Description: Vital inputs for include *Temperature* (38.2° C), *Temperature Method* (Tympanic), *Blood Pressure* (98/50), *Blood Pressure Method* (NIBP), *Pulse* (88), *Pulse Location* (Apical), *Oxygen Saturation* (99), *Oxygen Device* (Room Air), *Respirations per Minute* (20)