

Intro Level SimEMR® Use Cases

3.4 HIGH SCHOOL PROGRAMS

Introduction

This lesson will introduce learners to basic components and procedures for charting in an electronic medical record system while reviewing and managing a patient case. 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®
- Perform basic documentation in an EMR

Resources Needed

- SimEMR® login
- Internet access
- Web capable device

Content

- Introduction to 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

HIGH SCHOOL PROGRAMS

Patient Profile Name: Hugo Stone **DOB:** 05/19/1958

Scenario: This is a basic patient case that involves Mr. Hugo Stone, a 62-year-old male who was brought to the emergency room by his wife after multiple bee stings. Mr. Stone was working in his yard where he unknowingly disrupted a nest and was stung by wasps to multiple areas of his upper body. He has developed a growing rash, and started noting shortness of breath, at which point he called his wife for assistance. Mr. Stone has been otherwise healthy to this point.

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 High School 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
- d. Complete basic documentation practices

Patient Profile - Hugo Stone

Getting Started

1. Review the Patient Kit Addendum on pages 11 – 13.
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 Hugo Stone 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 Hugo, and select the **[⚙️]** on the patient row. Select **[📄 EDIT]**.
 - h. Select **[+ ADD NEW FORM]** to add all forms according to Hugo'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 Hugo to. Click **[SELECT COURSE]**.
 - c. Locate Hugo 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 - Hugo Stone

This lesson will introduce you to data entry in a medical record. Common terminology and experience will be provided. Instructors should feel free to adapt the lessons provided to meet their curricular requirements.

As you may be considering a healthcare career, you may find it interesting to know that clinical providers amass a number of different terms to describe a problem, update or other fact that is pertinent to the patient experience. In addition to the medical terminology you are learning as part of your educational program, you will find a number of terms are used in abbreviated form for efficiency. That is not to say that all terms with abbreviations are permissible and/or legal, which is especially true when discussions of medications arise. A number of previously used abbreviations have been removed due to lack of clarity, or actual patient harm occurrences.

Documentation in the clinical record by any healthcare provider is extremely important to be accurate in content, concise and comprehensive. A missed or inaccurate data point can be utilized that may not be accurate and could interfere with patient safety.

In this lesson you will review a number of forms to identify the common medical terms used in Mr. Stone's case, as well locating and translating the potential acronyms or abbreviations you find.

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®

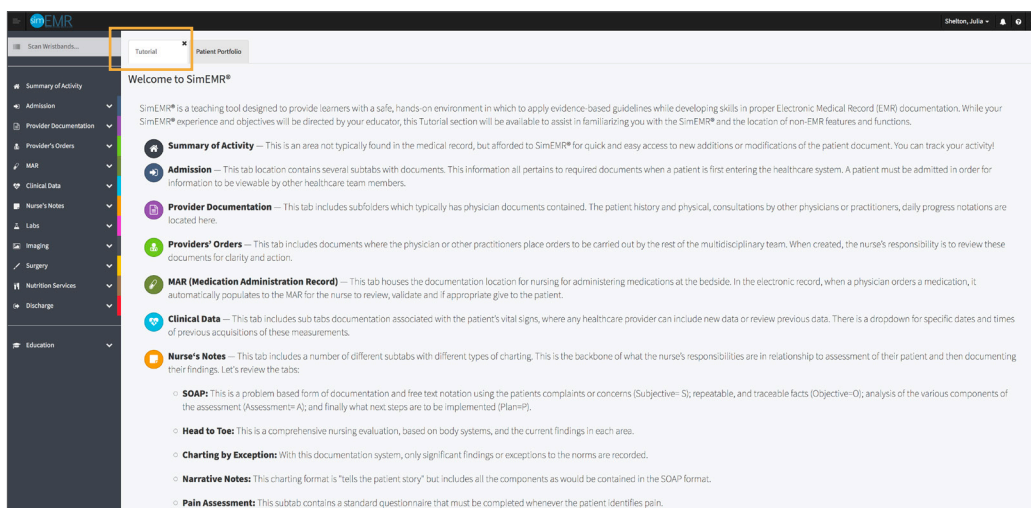
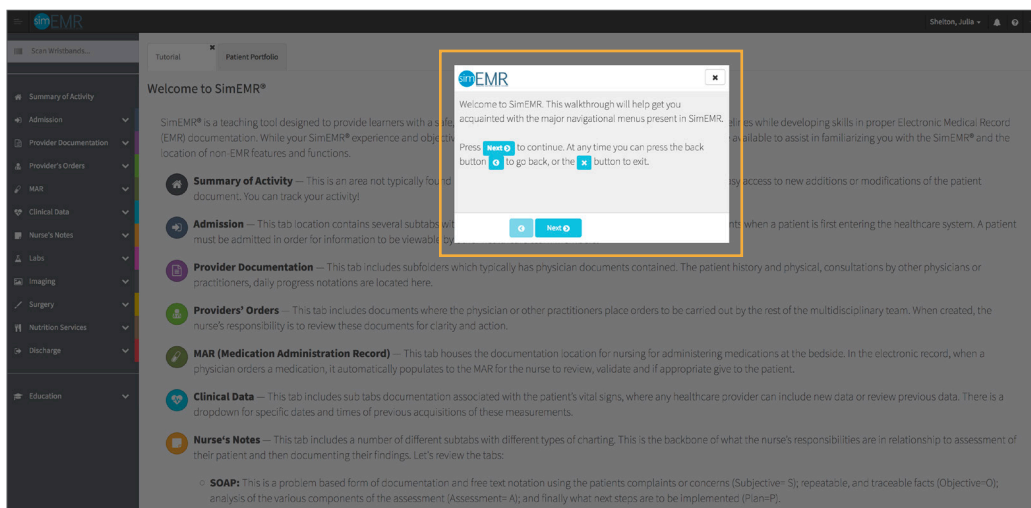
Resources Needed

- SimEMR® login
- Internet access
- Web capable device

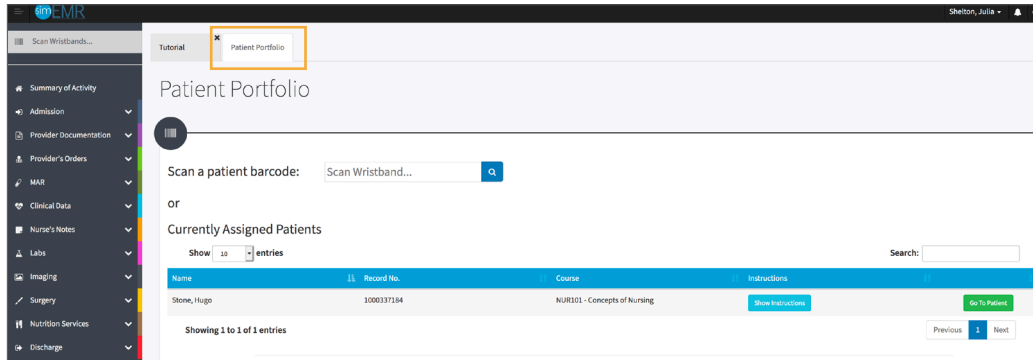
Learner Actions: Introduction to Common Terminology

This lesson will introduce you to basic components and procedures for charting in an electronic medical record system while reviewing and managing a patient case. The forms 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.

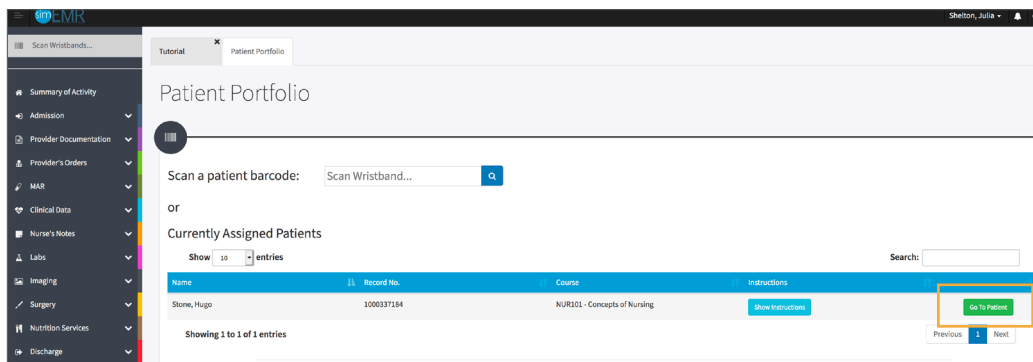
1. Open SimEMR® in a web browser.
2. At the login screen, enter your username and password. Select **[LOGIN]**.
3. If needed, review the tutorial options presented in the *Tutorial* tab.
4. Review and familiarize yourself with the tutorial options in the pop up as well as the *Tutorial* page.



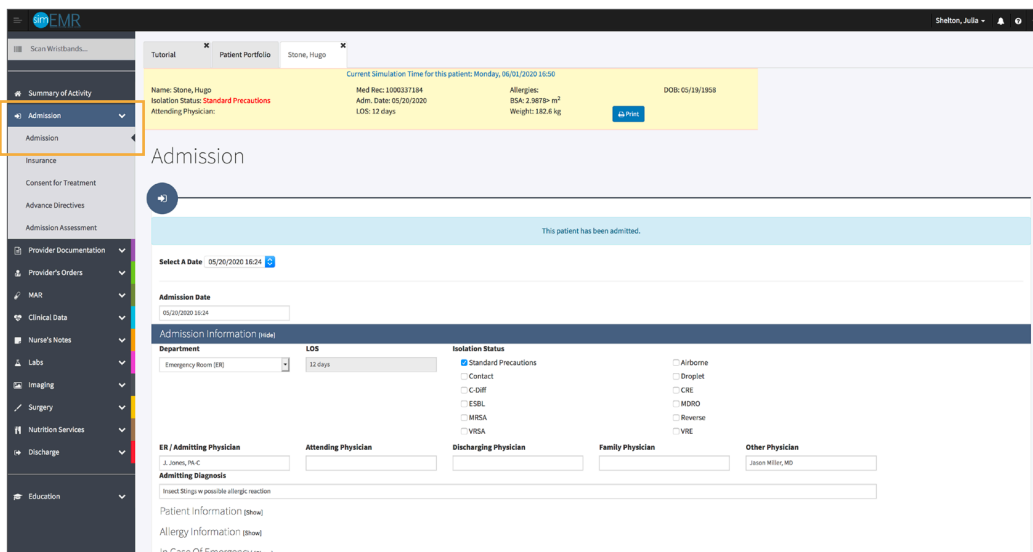
- Locate the *Patient Portfolio* tab. This will house any patient profile records assigned to you. Current assignments will be presented at the top of the page, any past completed assignments will be located at the bottom of the page for reference and review at any time.



- Locate Hugo Stone and select **[GO TO PATIENT]**.



- Click **[ADMISSION]** from the left menu and then select **[ADMISSION]**.



8. Validate Hugo Stone is the chart you are working in.
9. Note the options listed under *Isolation Status*. Acronyms are used for a specific reason.

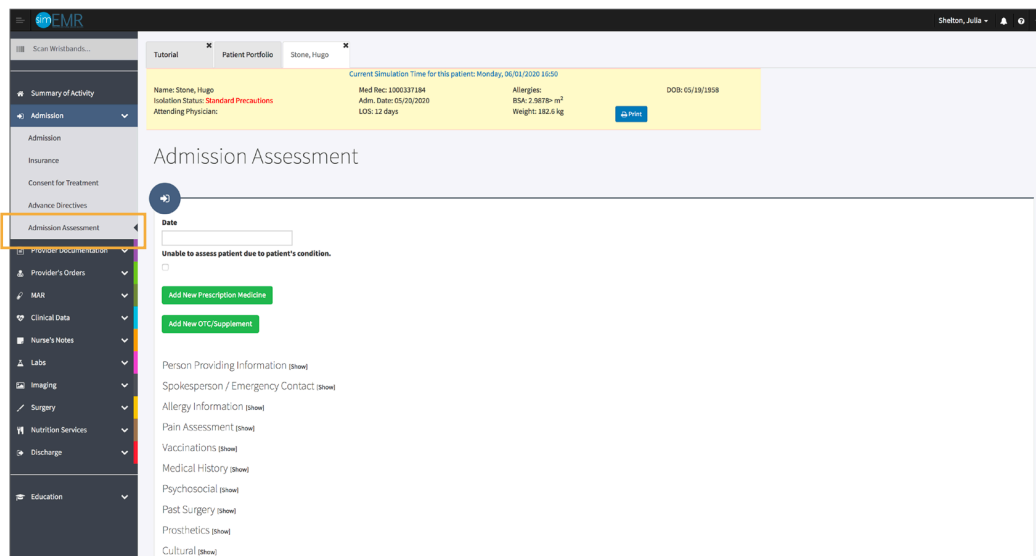
Standard Precautions: used at all general points of contact, all people are potentially suspect for infection transmission

MRSA (Methicillin Resistant Staph Aureus): a contagious bacterium that resides typically on the skin of an infected person and is easily transmissible without proper protection

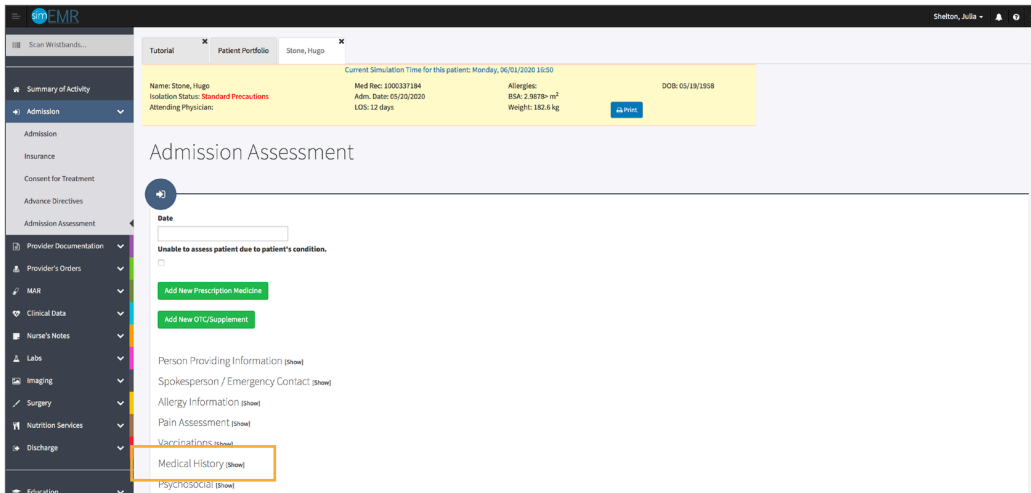
VRE (Vancomycin Resistant Enterococcus Faecalis): an easily transmitted gastrointestinal (GI) bacterium, that by its name is not easily killed by the antibiotic Vancomycin, commonly given for GI infections

MDRO (Multi-Drug Resistant Organism): an infection unable to be controlled by several different antibiotics, needs special therapeutic medications

10. Click **[ADMISSION]** from the left menu and then select **[ADMISSION ASSESSMENT]**. Note that typically, medical jargon is acronymized especially when related to common conditions



11. Click **[ADMISSION]** from the left menu and then select **[ADMISSION ASSESSMENT]**. Note that typically, medical jargon is acronymized especially when related to common conditions.
12. Click **[MEDICAL HISTORY]**.



13. The following help to identify why its easier to use an acronym. Review other areas of the physical assessment form for other common terms

Not all medical terms can or should be converted to acronyms in the interest of patient safety. This is why many descriptions are written out in full scale.

AAA: Abdominal Aortic Aneurysm

CABG: Coronary Artery Bypass Grafting

PTCA: Percutaneous Transluminal Coronary Arteriography



14. Click **[PROVIDER'S ORDERS]** from the left menu and then select **[PROVIDERS' ORDERS]**. This is where the MD/NP/PA provide the required treatments, testings, and care delivery pertinent to each patient.

15. Review the *Order Details* section. Note a number of laboratory tests have associated acronyms.

CBC w diff (Complete Blood Count with Differential): provides information on the patient's blood cell status and content

BMP (Basic Metabolic Profile): the most common chemistry tests are created in this grouping

16. Review the *Nursing Orders* section. The following are common abbreviated terms when referencing vital signs (VS):

SBP: Systolic Blood Pressure

DBP: Diastolic Blood Pressure

HR: Heart Rate

RR: Respiratory Rate

TEMP: Temperature

17. Review the *Medication Orders* section. Medications ordered are in individual locations for clarity. Note some have acronyms associated with their order entry:

Timing: Depending on the medication order, intended timing of the drug is most commonly abbreviated. The provider (MD/PA/NP) and Pharmacy are well acclimated to these terms

PO: Oral or by mouth

IV: Intravenous

Note also that some medications are requested PRN, NOW or ONCE.

PRN: as Needed, typically associated with a time limit, such as 6 hours

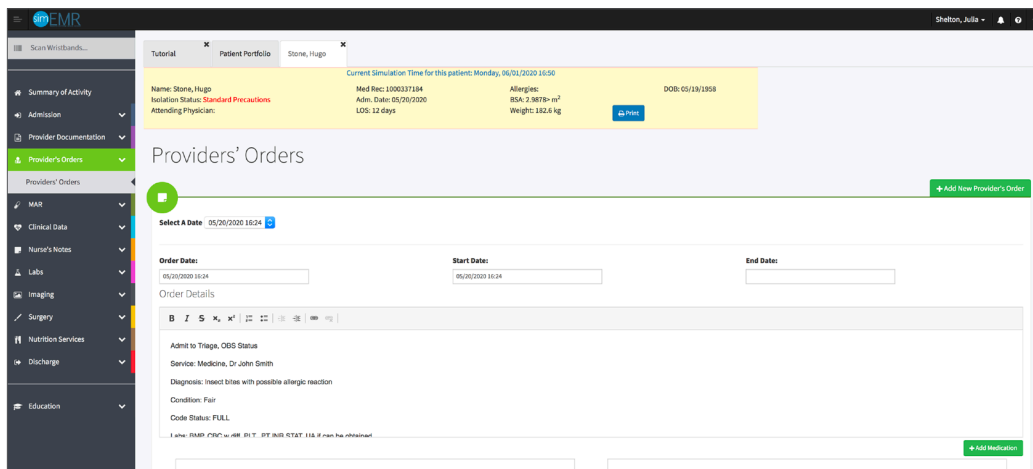
NOW: as soon as possible

ONCE: can be an urgent need or just a single non emergent dose

Finally notice the units of measure within the orders provided; there are many others that reference units of medication weight/volume, but these are the two most common:

mL: milliliters (formerly referred to as cc's or cubic centimeters)

mg: milligrams



18. Almost any area of a clinical record has terminology and abbreviations to help convey a message as well as limit lengthy notes.

Problems with terminology and acronymization developed with illegible writing styles, which have harmed patients in the past. The development of computerized documentation has solved much of this problem, however errors can still occur if the clinician is not careful and knowledgeable about the patient and therapies he/she is providing.

Feel free to explore additional areas of the medical chart to identify other common terminology to enhance your knowledge or as directed by your instructor.

19. Close the patient chart by clicking the X on the *Hugo Stone* tab.

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

Patient Kit Addendum

HUGO STONE

Name: Hugo Stone **DOB:** 5/19/1958 **Gender:** M_x F__ **Age:** 62
Race: Caucasian **Weight:** 69 kg/137 lbs **Height:** 165 cm/5'5"
Religion: Catholic **CODE STATUS:** **Advance Directive:** Y__ N__
Major Support: Mary, wife **Phone:** 814-555-1212 **Isolation Status:** Std Precautions

Allergies & Reactions: None Known

Immunizations: Tetanus booster, 1985

Attending Physician/Team: Cardiologist: Jason Miller, MD

Primary Diagnosis: Insect stings with possible allergic reaction

History of Present Illness: Pt doing yard work at his home, disrupted a wasp nest accidentally and was stung multiple times to upper body. Initially no sequelae but noted reddened rash within 30-45 minutes and began having shortness of breath. Called to his wife for assistance.

PMH: Hypertension, Angina Pectoris, "heartburn sometimes that I take Pepcid for"

Surgeries/Procedures: NONE

Social History: Married to wife Mary Stone for 35 years, 3 children not living in the home. Denies tobacco use, but former heavy cigar smoker. Rare social alcohol use admitted, denies drug use other than those prescribed. Couple live in 2 story home in local area.

Data: Blood pressure: 168/92, Heart Rate: 104, Respirations: 28, Temp: 37.8° 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 elbow pain due to arthritis.

Cardiovascular: Regular rate and rhythm, no murmurs, rubs or gallops on auscultation. Tachycardia noted. Peripheral pulses equal throughout and full. No edema noted. Denies chest pain prior to event or current. Skin is erythematous to upper torso and arms, non-blistered. Mild diaphoresis noted.

Pulmonary: Lungs clear to auscultation with few inspiratory wheezes, no oxygen in use presently. Mild tachypnea noted. States occasionally difficulty to get full inspiration since event. SpO2 91+ %. 2 Liters nasal cannula applied.

Gastrointestinal: Abdomen flat, soft. Normoactive bowel sounds noted in all quads. Denies N/V/C/D. Denies difficulty with meals, but admits to post-prandial upper GI discomfort. Relieved with Pepcid OTC, prn.

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: Dry skin, otherwise intact, Capillary refill WNL

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

Psychological: Noncontributory at present, pt in mild distress due to low-level insect bite reaction

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		Miller
Famotidine (PEPCID)	10 mg	OTC	PO	As Needed	When heartburn happens	Self
Nitroglycerine Patch (NitroDUR 0.3%)	1 patch		TOP	Daily	Change at Night	Miller

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	Opioids:
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:

CT/MRI:

US:

EEG:

ECG: Pending Order

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

SOAP

Description: All *Subjective, Objective, Assessment, and Plan* 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 (*Insect stings w. possible allergic reaction*), as well as *Patient Information*

Progress Notes

Description: The patient's status is documented

Provider's Orders

Description: Order for 50 mg Demo Dose® Diphenhydramin (Benadr) 50mg/1mL Injection ONCE IV NOW, 25 mg Demo Dose® Benadr 25mg Tablet 8 HR PO PRN Itching, 1000 mL Normal Saline 0.9% Solution 1000mL IV ONCE IV Continuous Infusion

Labs

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

Vital Signs

Description: Vital inputs for include *Temperature (37.8° C), Temperature Method (Oral), Blood Pressure (186/92), Blood Pressure Method (NIBP), Pulse (104), Pulse Location (Radial), Oxygen Saturation (91), Oxygen Device (Room Air), Respirations per Minute (28)*