

The image is a composite. The top portion shows a close-up of a silver stethoscope resting on a white surface, possibly a desk or a medical chart. The bottom portion shows a medical chart with several colorful tabs (green, blue, orange, red) labeled with numbers and letters. A stethoscope is also visible in the foreground, partially overlapping the chart. The background is a soft, out-of-focus light color.

Electronic Health Records: A Teaching Tool

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MUSC Visitors
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Clemson University
School of Computing



Project Goals

1. To identify and predict successful EHR competencies for healthcare professionals.
2. To develop a software teaching tool (TeachEHR) that provides healthcare professionals with hands-on experience with an EHR system.
3. To use and evaluate TeachEHR in clinical settings, i.e., “Using the tool, did the students learn the desired healthcare competencies?”



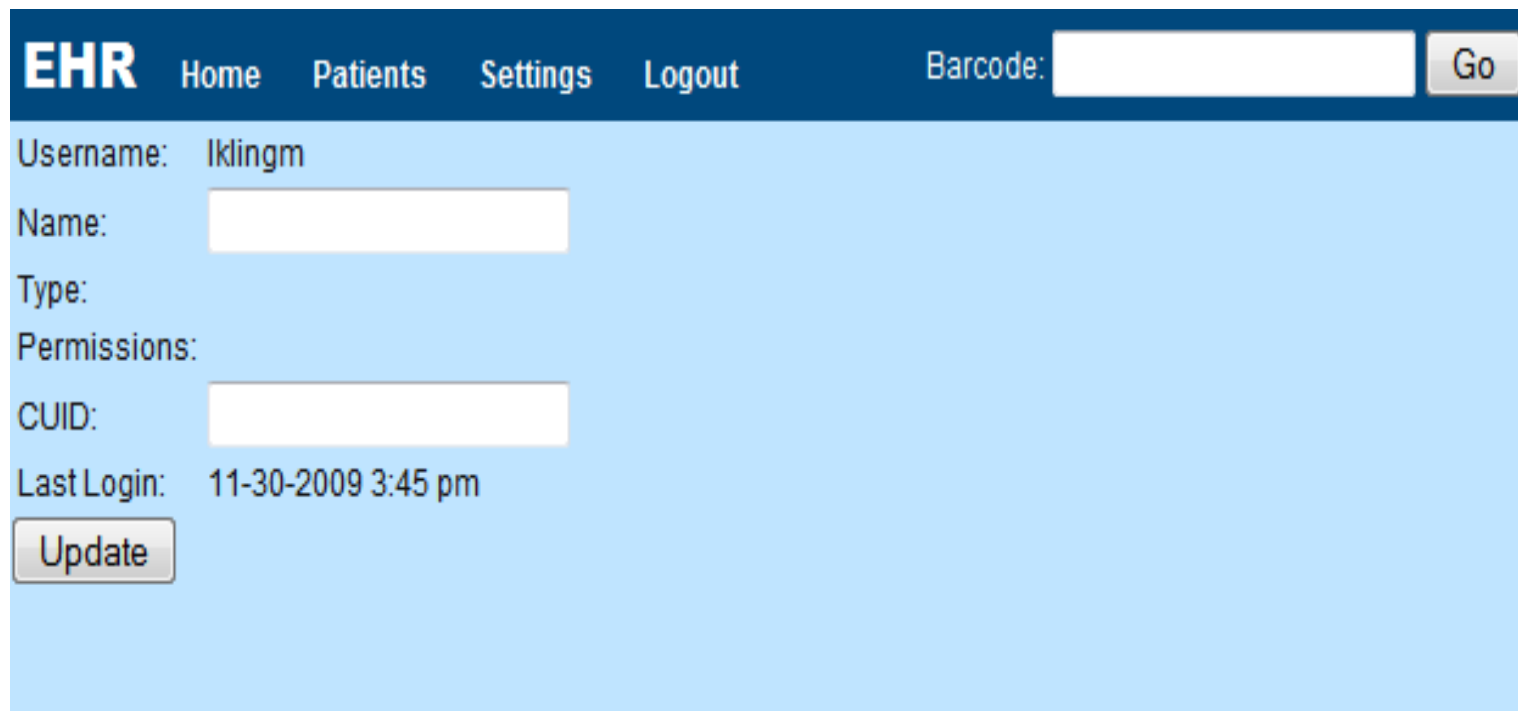
Clinical Learning Research Center





Components of our EHR

- Format that students are familiar with e.g., Facebook



EHR Home Patients Settings Logout Barcode: Go

Username: Iklingm

Name:

Type:

Permissions:

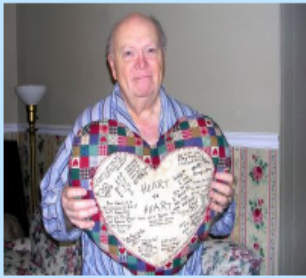
CUID:

Last Login: 11-30-2009 3:45 pm



Components of our EHR

- Many features that exist in commercial EHR systems
 - Vital signs



Allergies!

Main
History/Physical
Nurse Notes
Daily Assessment
Physician's Orders
Patient Information
Lab Reports
Activities/Daily Living
Medicine Control
User History

Tucker Ellton Benjy Admitted for high fever and neck pain 11-24-09 4:52 am

Temperature	Pulse	Respiration	Blood Pressure	O ₂ Sat	Blood Glucose													
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> / <input type="text"/>	<input type="text"/> % <input type="text"/> L (0=RA)	<input type="text"/>	<table border="1" style="border-collapse: collapse;"> <tr><td><input type="button" value="7"/></td><td><input type="button" value="8"/></td><td><input type="button" value="9"/></td></tr> <tr><td><input type="button" value="4"/></td><td><input type="button" value="5"/></td><td><input type="button" value="6"/></td></tr> <tr><td><input type="button" value="1"/></td><td><input type="button" value="2"/></td><td><input type="button" value="3"/></td></tr> <tr><td><input type="button" value="0"/></td><td><input type="button" value="."/></td><td><input type="button" value="Add"/></td></tr> </table>	<input type="button" value="7"/>	<input type="button" value="8"/>	<input type="button" value="9"/>	<input type="button" value="4"/>	<input type="button" value="5"/>	<input type="button" value="6"/>	<input type="button" value="1"/>	<input type="button" value="2"/>	<input type="button" value="3"/>	<input type="button" value="0"/>	<input type="button" value="."/>	<input type="button" value="Add"/>
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<input type="button" value="0"/>	<input type="button" value="."/>	<input type="button" value="Add"/>																
						<input type="button" value="Add"/>												

Recent History: [All](#) [Vitals](#) [Medicine](#) [Orders](#) [Surgeries](#) [Lab](#)

11-24-09 3:24 am

Temp: 123.0 F Oral, Respiration 12, Blood Pressure: 123/123 123 bpm, O₂ Sat: 99.9%, 12L, Glucose: 123 ❌

11-24-09 1:43 am

Temp: 122.0 F Tympanic, Respiration 12, Blood Pressure: 312/12 12 bpm, O₂ Sat: 99.9%, 1L, Glucose: 11 ❌

11-23-09 11:23 am

Temp: 98.0 F Redal, Respiration 34, Blood Pressure: 120/12 34 bpm, O₂ Sat: 12.0%, 1L, Glucose: 132 ❌

11-21-09 10:56 pm

Temp: 99.9 F Oral, Respiration 54, Blood Pressure: 120/50 67 bpm, O₂ Sat: 22.0%, 2L, Glucose: 23 ❌



Components of our EHR

- Many features that exist in commercial EHR systems
 - Medication reconciliation

[Administer Medicine Options](#)
[Add Medicine Item for this Patient](#)

Administer Medicine:

Medicine	Start	End	Give Every	Amount
Real Barcode ❌	11-23-09 3:00 pm	11-26-09 3:00 pm	1 day	5.00 ML

Previous Medicine Administrations:

11-24-09 10:11 am

Loren Klingman administered 2.00 MG of Real Barcode2. Approved by: Vikas, 889751312 ❌
11-24-09 3:56 am

Trent Robbins administered 1.00 ml of Test Med3. Approved by: Vikas ❌
11-24-09 3:46 am

Trent Robbins administered 1.00 ml of Test Med3. Approved by: Vikas ❌
11-21-09 9:01 pm

Trent Robbins administered 1.00 ml of Test Med3. Approved by: Vikas ❌

WARNING: This medicine is not in the administration schedule.

Administering ml of Test Med3.

Scan Cards to verify before administration:

1:

Medicine:

Amount (only enter number, units come from above):

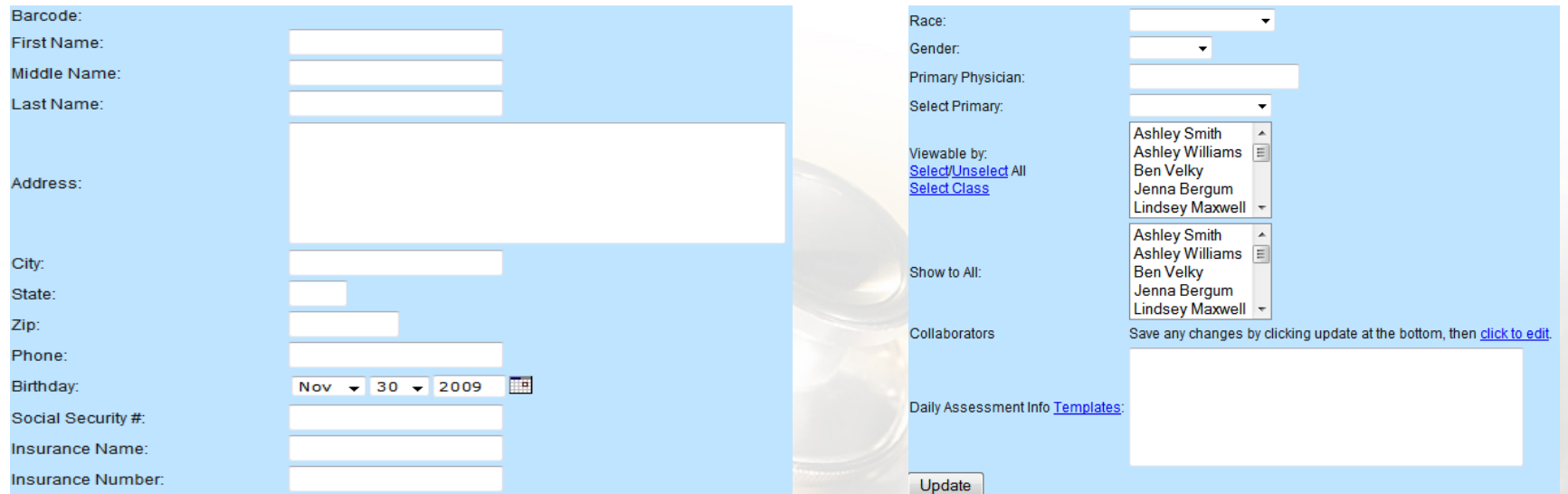
Start Date: Dec 1 2009 10:00 am

End Date: Dec 1 2009 10:00 am

Give Every:

Components of our EHR

- Authoring tool for teachers to create patient scenarios



The screenshot displays a patient information form with two columns of input fields. The left column includes fields for Barcode, First Name, Middle Name, Last Name, Address, City, State, Zip, Phone, Birthday (with a date picker set to Nov 30, 2009), Social Security #, Insurance Name, and Insurance Number. The right column includes fields for Race, Gender, Primary Physician, Select Primary, Viewable by (with links for Select/Unselect All and Select Class), Show to All, Collaborators (with a note to click update and a link to edit), and Daily Assessment Info Templates. A list of names (Ashley Smith, Ashley Williams, Ben Velky, Jenna Bergum, Lindsey Maxwell) is shown in two dropdown menus. An Update button is located at the bottom.

Barcode:		Race:	
First Name:		Gender:	
Middle Name:		Primary Physician:	
Last Name:		Select Primary:	
Address:		Viewable by:	Ashley Smith
City:		Select/Unselect All	Ashley Williams
State:		Select Class	Ben Velky
Zip:		Show to All:	Jenna Bergum
Phone:		Collaborators	Lindsey Maxwell
Birthday:	Nov 30 2009		Ashley Smith
Social Security #:		Daily Assessment Info Templates:	Ashley Williams
Insurance Name:			Ben Velky
Insurance Number:			Jenna Bergum
			Lindsey Maxwell
		<input type="button" value="Update"/>	



Questions





“Having Fun & Learning While Creating...”

