

Specifications, script and data collection tool for eMAR usability testing

Equipment/supplies:

“Evaluation Participant” **Information Sheet** given to scheduled end users in advance of testing
one usability testing **questionnaire** per end user
one patient unique to each end user, with appropriate medications “available” to administer for each scenario
laptop with **recording software** installed, including **voice recording device**
access to appropriate test version of **EHR**

Set-up

Laptop in EHR, recording software “set to roll” with audio recording device (**recording software** to record **audio and screen navigation**)

Usability Testing Questionnaire to be completed at end of testing

Data collection sheets and instructions (following)

Introduction

General instructions

Thank you for being willing to participate in this usability testing. This is part of a joint effort between Geisinger and the University of Wisconsin-Madison to assess the proposed design of the eMAR (electronic medication administration record) to be used by staff nurses. What we ask you to do today will provide us true USER insight regarding the work thus far. By no means are we judging your performance, but rather how well the eMAR is designed to meet user expectations and needs based on your current practice and use of the paper MAR. I will guide you through the eMAR to a point where I will then ask you to complete various tasks – 3 scenarios in total. I will explain the objective of each scenario as we begin it. Throughout this testing I ask you to “think aloud” as you use the eMAR. By this I mean that you convey to me verbally whatever is on your mind. I may at times ask questions or remind you to do this. DO NOT worry if you get “stuck” as we realize the eMAR warrants improvement. If this occurs I will help you proceed with the respective scenario. Your feedback will provide us valuable information to make necessary changes to the design of the eMAR.

Do you have any questions before we begin?

As a matter of clarification it may be helpful for you to know that the eMAR has been designed to replicate the way we understand nurses currently use the paper MAR. In addition we also hope features related to standardization of clinical practice will increase efficiency for nurses while also meeting regulatory requirements .

Here we go..... To access the EHR please do the following:

Enter _____ for User ID

*Enter **xxx** for password*

*Enter **yyy** for department*

You are now at the “Inpatient Home, Patient Lists” screen.... Select _____ by single-clicking on the name. Now proceed to the toolbar immediately below the list of ICU patients and click on the last icon on the toolbar labeled “Due Meds”. Now go to the lower half of the screen to view details regarding the patient. Click on the down arrow in the right hand scroll bar until the shaded blue header line containing the label “due medications” appears. Single click on “[Open MAR]” – on the far right side of the shaded header – to proceed.

You may now notice that there are tabs above the medication list that refer to the nature of the medication order (e.g., scheduled, continuous, PRN, etc). Above the tabs are fields that display the current status of your work day – the shift and date. Finally, the columns associated with the medication list display the times corresponding to each hour of this shift. The current hour is highlighted bright green.

Scenario 1

In this scenario we will ask you to document medications you just administered, including one that requires dual sign-off, and one (Colace) that was not administered because it was contraindicated

AS A REMINDER, PLEASE “THINK ALOUD” TO THE BEST OF YOUR ABILITY AS YOU PROGRESS THROUGH THE eMAR.

It is currently _____ o'clock and you need to document administration of the medications you just gave your patient.

Looking at the medication list, please click on the top of the column that coincides with the current time(highlighted in bright green). You now see the full list of medications due.

1) Please document administration of all of the meds.

2) Include the fact that Colace was not administered due to the patient experiencing severe diarrhea.

3) When you incur Cefazolin, that requires dual signoff, tell us how you would proceed.

Clicks on appropriate (time) column (Y/N)	Able to a document Colace not administered (Y/N)	Reaction to dual sign-off message for Cefazolin	Able to document administration of all other meds (Y/N)	Notes/observations/user comments	Recording software notes

Scenario 2

In this second scenario we ask that you document administration of a medication due to be administered on another shift. In other words, an overdue med.

Prilosec, ordered to be given to your patient once daily at 6:00 a.m. was missed. Please document the Prilosec you just now administered.

Recognizes need to select previous shift (Y/N)	Able to select respective shift (Y/N)	Able to correctly select Prilosec based on its scheduled administration time (Y/N)	Able to correctly document administration of Prilosec with current time (Y/N)	Notes/observations/user comments	Recording software notes

Scenario 3

Next we will ask you to document an injectable drug.

Please now document administration of a PRN injectable drug – Phenergan – that you injected in the patient’s buttocks.

Recognizes need to go to PRN tab (Y/N)	Able to correctly select Phenergan (Y/N)	Able to correctly document administration of Phenergan, including injection site (Y/N)	Notes/observations/user comments	Recording software notes

Thank you. You have now completed the scenarios.

I now have three questions for you that concern a design issue we presently face. We are trying to determine the **best, most consistent** manner of documenting blood product administration in EHR. If you were a Geisinger designer of EHR, in what activities (e.g., eMAR, flowsheets, notes, blood bank documentation, etc.) would you assign documentation by nursing of....

ALBUMIN & why?

Where?	Why?

PACKED RED BLOOD CELLS and why?

Where?	Why?

HESPAN and why?

Where?	Why?

Based on the experience you just had, we ask you to complete this questionnaire. There are no “right” answers. We only ask that you convey your perceptions to the eMAR that you just worked with.

THANK YOU!!!