

ATTACHMENT C***Think-Aloud Protocol for Key Informant Interviews***

Thank you for your participation in evaluation of our visual displays of competing risks of HAPU, CAUTI and Falls in a HAC Risk Dashboard. We are interested in your opinions about the information presented and visual displays of data for patient care. We anticipate this conversation will take no more than an hour. We would like to audio record this conversation to assist with our data analysis. However, no names or settings will be associated with any of the transcriptions of this audio recording. With your permission, I'd like to begin the audio recording? [PAUSE for agreement.]

If at any time you would like to stop, please do so. We'll start with a few questions about yourself and then ask you to view visual displays while you consider 3 different patient vignettes. This study assumes you are in your current role assessing patients or in a past role when you assess patients.

These visual displays are intended to help with decision-making related to competing risks of HAPU, CAUTI and falls. This is not a test of you or your knowledge of patient care. We are looking for feedback on how we can change information presented and visual displays to be more helpful and user-friendly.

Let's start with a few questions about yourself:

Intro/Demographics

1. What is your position? How long have you worked in this position here and/or at other facilities?
2. What is your background in terms of your training?
3. Do you use the EHR system personally? For how long?
4. How often do you use the EHR system? How comfortable do you feel?
5. Do you use personally us a tablet/smart phone in your work? For how long?
6. How often do you use a tablet/smart phone in your work? How comfortable do you feel?

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AHRQ Reports Clearance Officer

Attention: PRA, Paperwork Reduction Project (0935-XXXX)

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Vignettes

Next are the vignettes that we'll ask you to walk through. For the following vignettes, step through the interfaces and visual displays of the MHAC application. Please comment out loud on the interfaces and your thought process as you navigate the displays. *(For researcher: show individual visual displays and ask questions with follow-up prompts to participant answers).*

Vignette 1. An 80-year-old female who is independent in ambulation admitted with CHF. She has a catheter for functional incontinence with frequent diuresis and a chair alarm to manage fall risk. She must call for help to ambulate.

Vignette 2. An 85-year-old non-English speaking male with dementia and prostate cancer, admitted for hematuria. Indwelling urinary catheter is in place, but develops delirium superimposed on dementia which is increasing his risk for falls.

Vignette 3. A 72-year-old obese female that is in post op day 2 after hip replacement with indwelling urinary catheter. Hoyer lift is used to get her up due to obesity and pain.

Vignette 4. A 56-year-old male that is in post op day 2 after knee replacement surgery with benign prostatic hyperplasia. The indwelling urinary catheter was placed by urology. The patient is having poor pain control and is refusing physical therapy due to pain.

Follow-up questions after cognitive walk through/think aloud session for vignettes

B.1. Questions for individual visual displays:

- a. Were there parts of the interfaces/graphs/visualizations that worked well?
 - i. What made those features stand out for you?
- b. What parts of the interfaces/graphs/visualizations did not work well and why?
- c. Do you think such an interface/graph/visualization is intuitive?
 - i. Why or why not?
- d. Would you see value in having such interfaces/graphs/visualizations available to you to monitor your patient's risk of complications/hospital acquired conditions and in making care-related decisions?
 - i. Why or why not?
- e. Do you have any further comments to make about this interface/graph/visualization?

- B.2.** Now that we have looked at these prototypes individually, we would like your opinions about them:
- a.** Which of these interfaces/graphs/visualizations would be most useful to you and why? Could such information be useful in making patient care-related decisions?
 - b.** Do you see any value in having such an interface/graph/visualization to inform your decision-making with regard to patient care?
 - c.** Do you see any value in having such an interface/graph/visualization during discussions with nurses?
 - i.** Physicians?
 - ii.** With patients?
 - iii.** With family members?
 - d.** Which of these interfaces/graphs/visualizations would be least useful to you and why?
 - e.** What elements make the interfaces/graphs/visualizations easier to understand? (cues: colors, text, trends).
 - f.** What is the granularity at which you would most prefer to see the data? (Highly detailed, abstracted to one or just a few elements?)
 - g.** Is there value in being able to see changes in patient risks over time visually using a graph?
 - i.** Is there value in being alerted to such changes?
 - h.** Would you prefer to have the information come to you directly based on alert thresholds (push) OR would you prefer to access the information yourself at your discretion (pull)?
 - i.** What would be your preferred way to access such information? (Prompt: Would you prefer integrated into the HER, as an email, accessible with login to a secure website, as a paper printout, mobile application on tablet/smartphone).
 - j.** How might these interfaces/graphs/visualizations fit into your work flow?
 - k.** Are there any additional ideas or thoughts that you want to share?