

## WHITEPAPER

# Critical Decisions for Critical Care

## OVERVIEW

One of the areas that can be most helped with the decision to use technology to give nurses more direct care time is the Critical Care Unit. Bedside Medical Device Interfaces help ensure the correct device settings are entered in the chart without the potential for transcription errors. This ensures accurate complete information for physicians decision making support as well as support for clinicians to individualize alerts and alarms. There are many decisions required of an organization during the entire project that will dramatically affect the success or failure of any project but three items stand out as critical to the successful implementation in the critical care areas.

## TEAM SELECTION

The best person to add to the design team for the critical care area is a direct care provider that works several shifts a week in that area. The manager making the decision of who to have participate on the team should be asking themselves who does the best work on the unit. Unfortunately the decision process often ends up being “Who can I afford to be without for the duration of the project?”

The content decided upon during the design process will be much more robust, usable and current with the decision to add that “great” clinician to the team. The team should include one person from each area that the software is going to be implemented in. This is critical since different care areas do slightly different things in slightly different ways and in some cases utilize different terminology. They will need to work closely with the entire team to standardize as much information as possible. They will also be tasked with communicating decisions to their manager as well as collecting information from various sources to assist in the process.

## DESIGN / BUILD SPECIFICATIONS

Organizations need to work extremely closely with their software vendors to make sure that any design/performance considerations are updated as often as possible to keep performance from becoming an issue. These specs can change dramatically as code is updated or new functionality is added. It is critically important that as new specs are released the build team assesses the design to ensure it meets the latest recommendations. If changes are required it is much easier to make them immediately rather than having to revisit design decisions or even worse finding out at the end of the project when there are typically deadlines affecting the ability to address specification changes completely. The very nature of the critical care area’s solutions use a larger proportion of any system’s resources in every area, from more staff documenting many more data items per patient to using more interface effort to move information from a bedside device to the patient’s chart.

## TEST, TEST, TEST

The last step in a complete cycle of testing is sometimes called “end user is testing effort include staff that has not been intimately involved in the design process. This group should be tasked with reviewing test scripts prior to the testing cycle to ensure a more complete script. This effort should also encompass a representative from every area that will be implementing the software solution. The up front effort required is greater with a larger testing team to provide the testing stations, test scripts, covering the tester’s shifts, etc but will help make sure that the system design will work much more effectively for each unit when implemented.

Done correctly this is the step where unaddressed process questions will come up as well as the design validated. The testers will usually be very quick to critique the content. While this is unavoidable when introducing a new group to a new system it will need to be closely managed but encouraged. Anything found in this step is one less item for contention or misunderstanding during implementation. It is critical that the testing team note those design questions/criticisms and make sure they are addressed. Whether it's determined that the design is sound or that some change is required communication with the tester is vital for their understanding the intention of that element.

### **RECAP**

While there are many decisions facing an organization during the course of very complex projects such as transforming the technology for the clinical setting, these three have an extremely large and often overlooked impact for the successful implementation of the electronic health record, especially in the critical care venue. The very nature of these areas, often emergent, require extra diligence to ensure the safety of the patients and their eventual recovery. They will help in improving the error rate, support clinician decision making, decreasing length of stay and the patients satisfaction. Awareness of these and ensuring they are diligently addressed during the entire process helps ensure maximum return on investment, employee satisfaction with the transformation process as well as a successful technology implementation.