



## **The CPOE Challenge**

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As healthcare facilities around the country race to reach the holy grail of ARRA, Level 7 Certification, one of many challenges they will have to meet is creating a CPOE friendly environment. For those facilities utilizing MEDITECH Advanced Clinicals, this will require a complete rebuild of the OE order set dictionaries, customer defined screens, rules, attributes, etc. This is a monumental task. Large hospitals can have several hundred order sets that will all need to be rebuilt, and that might be the easiest part of the process.

Prior to CPOE, order sets were built with a unit clerk or another non-physician in mind. The unit clerk simply entered the information that the physician wrote or checked off on the paper order set. Sure, there is an electronic version of that order set, but it is more akin to data entry than a user intuitive interface. In other words, the unit clerk is simply filling in the same blanks that the physician checked off on the paper form.

The paper order set has several purposes. It is used to save the physician time (he/she doesn't have to manually write pages of orders). It is also used as a reminder to the physician to ensure all tests and medications are ordered for a specific patient diagnosis. The paper order, which can be found on the chart, also serves as a reference for all who view the chart: a consulting physician wants to find out who consulted him, a nurse wants to find out why a diet wasn't ordered, a doctor wants to make sure he ordered the right lab tests and antibiotics based on hospital protocol. All of this information and much more, used to be in that big binder called a patient chart.

The patient chart is more than a collection of data. There are stickers placed on it acting as reminders to start medications, stop medications, order labs, change diet status, or indicate DNR status, allergies, room number, patient name, doctor's name, etc. And, that's just on the *outside* of the binder. In order to have a successful advanced clinical implementation, all aspects of that seemingly simple binder must be considered. The chart is the most important communication tool in the hospital. Yet, the very things that make the paper chart so easy to use can also lead to patient injury. Any staff member who has access to the chart can misplace a sticker, misread a physician's handwriting or insert the wrong order in a patient's chart. Electronic charts are designed to provide electronic cross checks to prevent patient injury and expedite care. Most facilities have implemented some form of electronic charting for nursing care, an electronic MAR, and an electronic medical record (EMR). The next hurdle is Certified Provider Order Entry (CPOE).

In order to utilize an effective CPOE implementation a paradigm shift must occur for those individuals building, refining, implementing, and ultimately utilizing CPOE and CPOE order sets. Here are some common areas that must be investigated and probably refined prior to a CPOE go live.

## **Aliases**

Many times facilities have set up an alias name in their RAD, LAB, and NUR procedures. The lab procedure “Basic Metabolic Panel” is named so in the space allotted for a procedure name and often times facilities added “BMP” to the alias field. The physician enters an order for this test by typing “BMP.” As the list automatically narrows down she will see two choices listed for the test to select from. One will be listed with the alias name first, and the other with the test name first. By simply adding “BMP” to the end of the procedure name and deleting the alias field, the choice is narrowed. Wherever possible, the aliases should be deleted and added to the procedure name field, separated by a space. These duplications lead to an unnecessarily long look up list when physicians want to order procedures.

## **Procedures**

Some facilities may use a generic procedure name or Request For Service (RFS) where the unit clerk types in the order and then a misogram is sent to the appropriate department. However, this does not work well in an electronic record. The generic RFS appearing in the EMR provides no clue about what the actual order entails at a glance. Furthermore, it is not reasonable to ask a physician to type out all of his instructions, e.g. “ABG’s every 4 hours and PRN respiratory changes.” New procedures need to be built in ITS that are named for individual orders (ABG, Oxygen, etc). New customer defined screens (CDS) must be built and attached to these new procedures, or the facility may decide to add these procedures as interventions in PCS.

## **Nursing**

New interventions will need to be created to replace generic nursing instructions. New interventions should be created to take the place of simple communications that were taken for granted in the paper world. For example, “Call me once the patient arrives to floor.” Much like the RFS mentioned earlier, a generic “Nursing Instruction” may exist for a unit clerk to type a doctor’s instructions. These simple instructions need to be accounted for and the creation of a new orderable intervention in PCS is one way to accomplish this. These new interventions should be specifically named to reflect the care or procedure that the physician wants to order. If this is not done, the physician order screen and the EMR will become an unusable wasteland of generic procedure names that will affect a negative impact on patient care. However, these new interventions may or may not have assessments attached. Decisions will need to be made whether the interventions without assessments should be visible from the Nursing Intervention List. Is it the best practice to add more interventions to an already full list, or should these new interventions simply cross to the EMR without adding clutter to the necessary interventions that must be charted on? These are difficult questions to answer, and if they are not properly addressed can create quite a dilemma and ultimately may cause harm to the patient.

As noted above, CPOE will have a dramatic impact on the nursing staff. A majority of the orders physicians place are directed to nursing. Ideally, a nurse should be an active part of the implementation team as a primary builder of order sets. Nursing leadership and a nursing champion should be involved and their views considered before, during, and after implementation.

## **Physicians**

Obviously a physician champion must be involved in a project that changes the way a physician places orders. In addition to a physician champion, in larger hospitals, discipline specific order sets should be reviewed by a representative from each discipline prior to go live, hopefully the Department Chair or their representative. This review should take place with all primary builders of the order sets and any other key people. This will give the lead physician an opportunity to use CPOE and to inform IT staff of any suggested changes. Revisions can be made and follow up meetings can be scheduled. However, implementation teams must set a project scope or risk getting caught in a state where go live dates can be affected by continuous requests for revisions.

The CPOE process requires the physician to be more involved in patient monitoring. Prior to electronic order entry the physician merely wrote “do this if that happens.” For example, “Infuse 2 units PRBC’s if Hgb is below 12gm/dL.” Depending on the facility and how they handle orders like these, the physician may have to now monitor these values himself and order the blood instead of leaving “if, then” orders on a paper chart. The facility may choose another approach for dealing with this issue, but either way a physician champion will be an integral part in all aspects of the CPOE process.

## **Pharmacy**

Key pharmacy staff should also be a part of the team. They should play an active part in all phases of the project. A lead pharmacy builder should be assigned to collaborate with the implementation team to build the order sets. The pharmacy should be included in go live support to ensure all questions or issues that arise are promptly handled and patient care is not delayed. Their input and knowledge of background tasks specific to the PHA module and the workflows of the pharmacy staff make them an essential component for a successful implementation.

## **The Bottom Line: Communication**

Never before has interdepartmental communication been more important than with the implementation of CPOE. As demonstrated, virtually all departments are affected during all phases of a CPOE project. It is imperative that all departments know the progress and the details of the project that pertain to them. Assemble a group of managers that you feel should be part of the core team and ask them if anyone is missing. Make sure everyone is included. Make sure they disseminate the information to their staff. The more people know about what is to come, the greater their feeling of involvement and ultimately their feeling of control. The more people feel in control of what is to come, the less they feel like victims of decisions made by others who “have no idea what they do on a daily basis.” This conveys less hostility and stubbornness among the *key* players and a greater acceptance and willingness from the entire staff to make your implementation a success.

For more information about implementing CPOE call VCS at 610.444.1233 or email us at [vcs@getvitalized.com](mailto:vcs@getvitalized.com). You can also find more information about our services and solutions, as well as other whitepapers at our website [www.getvitalized.com](http://www.getvitalized.com).