Southern Maine Medical Center's Emergency Department Eliminates Mislabeled Specimens with MobiLab®

OBJECTIVE: Patient safety is a top priority at Southern Maine Medical Center (SMMC) in Biddeford, Maine. As part of the organization's patient safety plan, laboratory management set high standards for eliminating mislabeled specimens. The Emergency Department (ED) was determined to achieve those high standards and also streamline staff's workflow, since every second counts in the ED.

SITUATION: Preventing patient identification and specimen labeling errors in the ED has proven challenging at many hospitals, including SMMC. The old, manual specimen collection process at SMMC was inconsistent and mostly involved handwritten labels. With the old process, roughly 10 to 20 specimen labeling errors occurred per month in the ED, though fortunately there was no injury to patients. Tubes would arrive at the lab with misspelled patient names, illegible collection information or collection times left blank. SMMC needed a solution that would accurately link patients with specimens; one that would work well in their high-pressure, fast-paced ED.

SOLUTION: SMMC deployed **iatricSystems™ MobiLab Desktop**, which provides accuracy with barcode scanning and bedside label printing, and allows nurses to use the same bedside computers they were already using for documentation. In addition to eliminating patient identification and specimen labeling errors, the solution provides simple on-screen collection instructions that keep track of hard-to-remember details, allowing ED staff to properly collect virtually all specimens as part of their normal workflow.

RESULTS: The ED has experienced only three labeling errors since going live with MobiLab in March 2010, and those three instances occurred when MobiLab was not used.

"The ED is not always an easy place to implement things because there are so many variables. With MobiLab, we've found something that works."

– Jennifer Granata, BSN RN
ED Nurse Manager
Southern Maine Medical Center

Nobody wants to put patients at risk with specimen labeling errors. Good systems and processes are needed to accurately identify patients and match them with their specimens. These safety concerns hit home in a fast-paced Emergency Department (ED), where pressure is high and blood sometimes needs to be drawn from patients who don't yet have orders entered in the computer.

Southern Maine Medical Center (SMMC) figured out how to make it work. The full-service 150-bed medical center in Biddeford, Maine, part of MaineHealth, uses iatricSystems MobiLab software running on its existing Emergency Department PCs to prevent labeling errors and save time. The solution provides the accuracy and efficiency of barcode scanning and bedside label printing, and enables ED staff to collect specimens properly as part of their normal workflow.

Before SMMC turned to MobiLab, mislabeled specimens occurred more often in the ED than in other areas. The ED's inconsistent, mostly handwritten specimen collection process was prone to error, with patient names sometimes misspelled, the collector's name and/or draw time missing or illegible, or a tube would arrive at the lab with no label at all. "We had about 10 to 20 labeling errors per month, and that didn't meet the standard our lab had set," explains Jennifer Granata, BSN RN, ED Nurse Manager at SMMC.

What Works for ED Nurses?
Although phlebotomists were already using the handheld version of MobiLab on patient floors, Jenn and her colleagues knew they couldn't wait for a phlebotomist to do rounds in the ED. "It usually makes more sense for our ED staff to be able to draw blood as they're caring for patients. But nurses in the ED have so many things to do—we had to figure out what would work for them." A different approach was needed that would make accurate patient identification and specimen labeling an easy part of the nurse's busy workflow.

The solution: iatricSystems MobiLab Desktop, installed on each bedside PC in the 25 rooms of SMMC's ED. This is the same device that nurses were already using to enter their notes, vital signs, medication and other inputs. Each room is also equipped with a scanner and printer—the only hardware SMMC had to buy.

The new approach is simple to use, highly automated and prevents labeling errors at all stages of the collection process. The nurse scans the patient wristband to confirm their identity, collects the specimens as indicated on the screen, prints the labels real-time and places the labels on the tubes. Collection information goes directly into the LIS, eliminating manual data entry.

High-Pressure Identification, Draws and Labeling
MobiLab removes uncertainty so ED nurses can do their jobs efficiently. "There's a lot to keep track of: how many tubes they need, which color cap to use, the order of draw, whether to keep it on ice—all those things that are difficult to remember in high-stress situations. MobiLab keeps track of all those details for us and prompts us if we forget. It also saves us from having to go back and re-stick the patient to get additional specimens."

The ED had unique challenges that also had to be addressed during the MobiLab installation. In particularly urgent cases, blood must be drawn from patients before there's time to enter orders into the computer. SMMC created a spin and hold order for these critical scenarios, and now "every specimen that goes to the lab has an order and is linked to the correct patient," Jenn explains.

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The Results Are In

SMMC went live with MobiLab in March 2010, and the difference has been striking. "We went from about 10 to 20 labeling errors per month to just three errors in total for more than a year, and those three occurred because the employee didn't use MobiLab," Jenn says. Based on these results, SMMC now plans to implement the PC version of MobiLab with nurses on inpatient units, including the ICU.

Jenn added, "Senior management is very pleased with our success. We've gotten a great return on investment and we've improved patient safety. We're also the only facility in MaineHealth that does barcoding for specimen labeling, so we've become the role model for other facilities in that respect."

Many hospitals are interested in eliminating labeling errors in the ED, and Jenn and her colleagues get lots of visitors and questions about MobiLab and how it's used. She finished by saying, "The ED is not always an easy place to implement things because there are so many variables. With MobiLab, we've found something that works."

SMMC's experience is also described in an article entitled, "Getting a Handle on Specimen Mislabeling" in the 2011 January-March issue of the *Journal of Emergency Nursing* (volume 37, page 168).

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To learn more about Mobilab and how it can help improve patient safety at your organization, please contact us using the information below.