

Barcode Specimen Collection

Gain the Benefits with
Real World Examples!

Welcome!

Gain the Benefits with
Real World Examples



Introductions

Linda Trask



- Laboratory Solutions Manager, Iatric Systems, Inc.
- Over 20 Years of Laboratory Experience
- More than 75 Implementations of Barcode Specimen Collection systems

John Danahey



- Vice President, Iatric Systems, Inc.
- Over 20 Years Healthcare Experience
- 5 Year LIS Implementation/Support
- 3 Years Phlebotomy

Agenda



- What is Barcode Specimen Collection?
- Why is it Important?
- Benefits of Barcode Specimen Collection
- The Road to Implementation

Questions and Audience participation
are encouraged.

Barcode Specimen Collection



- Barcode Wristband
- Barcode Reader
- Point of Service Label Printing



Importance

“Laboratory medicine is a service that supports all aspects of patient care at Halton Healthcare Services... Our critical information forms the basis for over 80% of medical decisions.”

Dr. Nancy Liu

Medical Director

HHS Laboratory Medicine

Importance



- Incidence of mislabeling errors found to be as high as 7%
(Howanitz, PJ, Renner SW, Walsh MK)
- 34%-58% of total lab errors involve mislabeled specimens
(Bonini P, Plebani M, Ceriotti F, Rubboli F.)
- 1 of every 18 lab errors results in an adverse event. Extrapolated to nation's hospital-based laboratories: 160,900 adverse events per year.
(Valenstein PN, Raab SS, Walsh MK)

Patient Care



They are not *specimens*.
They are patients.

Eliminate Mislabeled Specimens



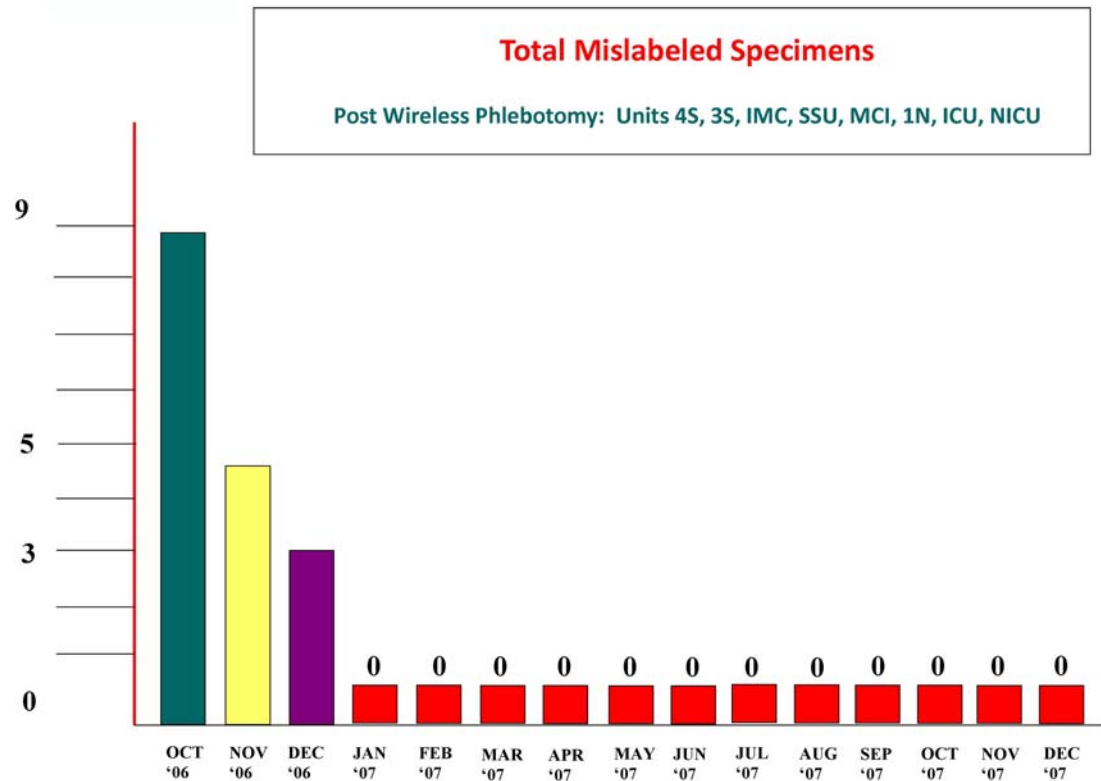
“On units where we use <barcode specimen collection>, there have been no draws on the wrong patient or mislabeled specimens since the implementation.”

Carol Muhlbauer - Assistant Director of Applications, Development and Support, Doylestown Hospital

“We had no mislabeled specimens in any of the areas using <barcode specimen collection> the very first month after go-live!”

Janet Johnson, BSN, MPH, RN-BC, Director of Nursing Informatics, Norman Regional Health System

Eliminate Mislabeled Specimens



Day in the Life of a Phlebotomist



- Picking up work list
- Patient Encounters
- Interruptions
- Wandering the Halls
- Embarrassing Situations

Improve Result Turn-around Times



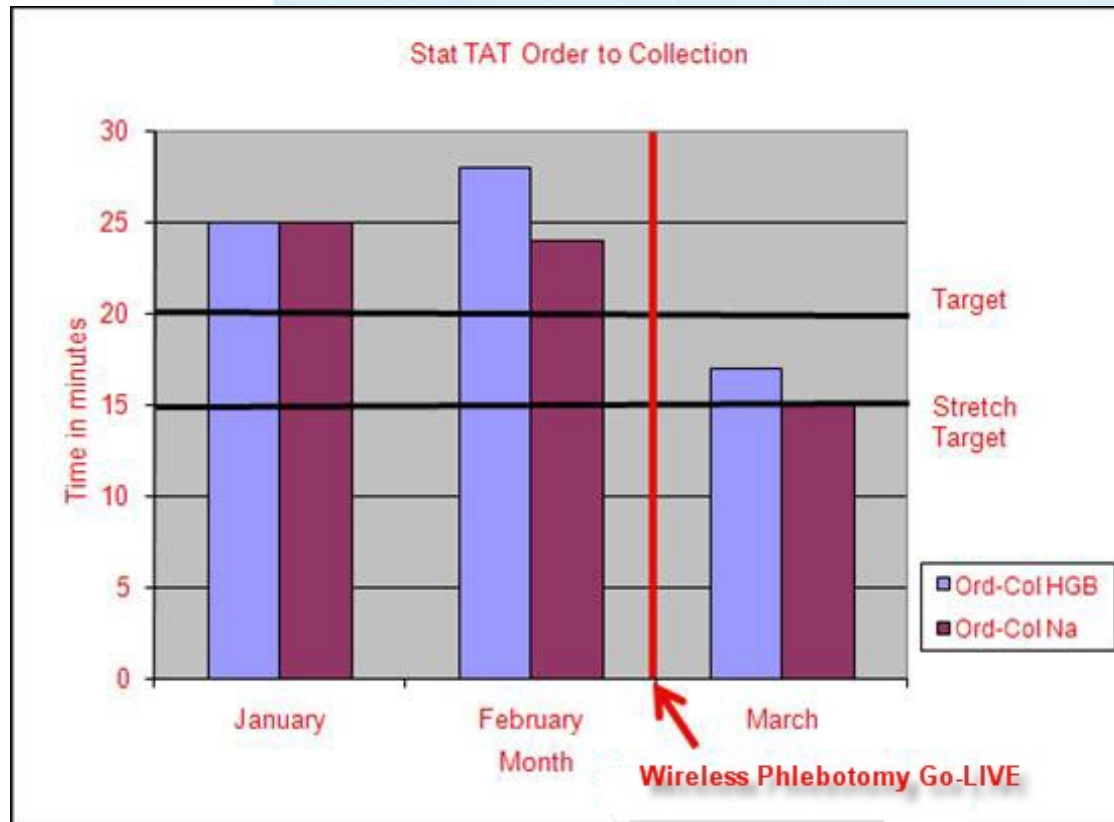
The sample hospital **reduced TAT from 65 minutes to 46 minutes per test**. Taking advantage of 1 percent of the added capacity that was created by these time savings, the hospital netted about \$1,028,600 in annual incremental revenue.

(Feist, Kelly)

The sample hospital **reduced the LOS per patient in the ED by 10 minutes each**. Taking advantage of even 10 percent of the added capacity created by this time savings netted about \$263,600 in annual incremental revenue.

(Feist, Kelly)

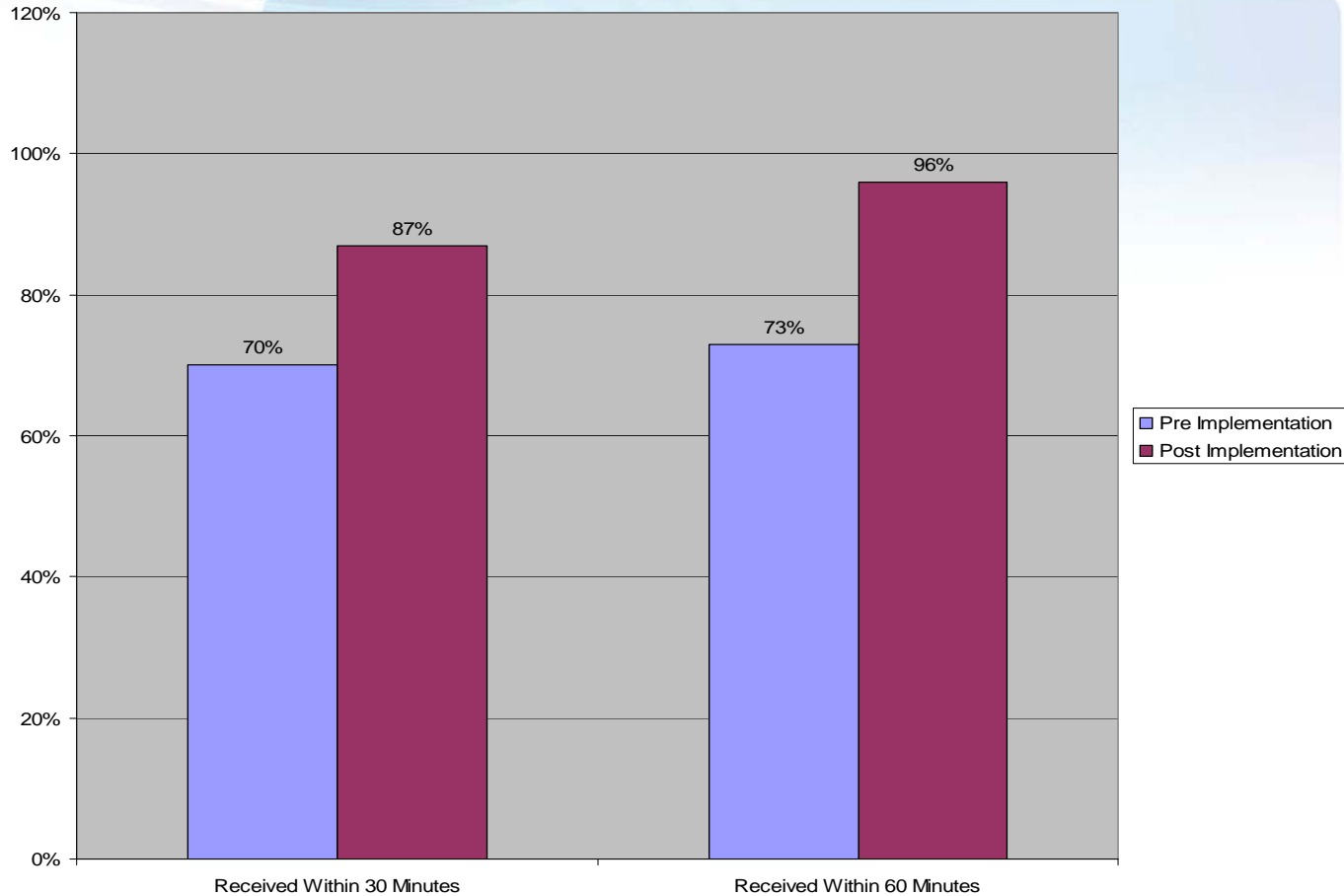
Improve STAT Turn-around Times



Phelps County Regional Medical Center

Ordered to Collected Times

Improve STAT Turn-around Times



Doctors Community Hospital

Ordered to Received Times

Mobile Phlebotomist



- New orders received automatically
- No travel to lab or nursing stations to pick up or print labels
- Reduce unnecessary venipunctures (Cancelled Orders, Add-on Tests, Specimens already in Laboratory)
- Electronic transfer of collection date/time user to LIS

Moving to such a system allowed a hospital whose phlebotomists were spending 15 minutes per hour on travel, and whose lab techs were spending 10 minutes per hour on specimen receipt, to **reduce these times by 60 percent and 100 percent**, respectively, with an impact of \$415,200 in annual productivity improvements. (Feist, Kelly)

Staff Efficiency Automation Line Rejections



Inaccurate collection times often caused specimens to reject on the Lab's automation line. Rejections decreased the organization's return on investment for that expensive capital purchase and caused test result delays, frustration for physicians and manual processing for lab staff. Now collection times are accurate, so specimens pass instead of rejecting.

Kate Burger, MT (ASCP), Norman Regional Health System

Other Efficiencies



- **Reduce Phone Calls to the Laboratory**
80% reduction in phone calls to the laboratory – Citizens Medical Center, Victoria, TX
- **Time spent hand writing labels (Date/Time/Initials)**
- **Management time spent resolving labeling issues**
Average 1.5 hours average follow-up time per error
- **Reduced recruitment, training and termination costs due to “zero tolerance policy”**
St. Joseph Medical Center, Towson, MD
- **Collection Batch Printing/Sorting**
Average of 1 hour per day

Build the Right Team



- Laboratory (Management and Phlebotomy)
- Nursing
- Information Technology (Applications and Networking)
- Patient Centered – This is a Patient Safety Issue

They are not *specimens*.
They are patients.

Wireless



- How comprehensive is your network?
- Do you have wireless expertise in-house?
- Test handheld/printer connectivity everywhere!
- Wireless in the Laboratory

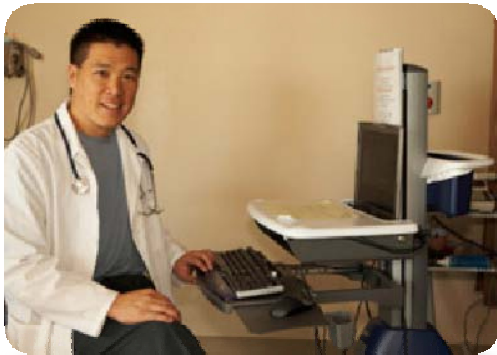
Invest in Appropriate Hardware



- Quantity of Devices
- Spares
- Service Contracts with Hardware Vendors
- Seek Recommendations on Devices
- Accessorize

Incorporate Into Current Platforms

- Especially important for nursing areas
- Reduce the Technology Learning Curve
- Already implemented BMV?
- Already implemented COWs?



Wristbands

- Quality will improve scanning success
- Barcode Size
- Check Digits?
- Test, Test, Test ...



Pick Your Targets



- Phased Approach vs. Big Bang
- Phlebotomists Embrace – Nurses Resist
- Start in Areas with Management Support
- Use Success Factors to Convince Resisters
- Emergency Room -Special Support

Thank You For Attending

Additional Questions?

Questions?

Thank you for attending.



Contact Information:

Linda Trask
Manager, Laboratory Solutions
Linda.Trask@iatric.com
(978) 805-4126

John Danahey
Vice President, Sales and Marketing
John.Danahey@iatric.com
(978) 805-4153

References

Bonini P, Plebani M, Ceriotti F, Rubboli F. Errors in laboratory medicine. *Clin Chem*. 2002;48(5): 691-698.

Feist, Kelly. Improving Patient Safety - Automating specimen collection and transfusion management reduces errors. *ADVANCE for Medical Laboratory Professionals*. May 10, 2010.
<http://laboratorian.advanceweb.com/editorial/content/editorial.aspx?cc=221524>.

Howanitz, PJ, Renner SW, Walsh MK. Continuous wristband monitoring over 2 years decreases identification errors. *Arch Pathol Lab Med*. 2002;(126):809-815.

Valenstein, PN, Raab SS, Walsh MK. Identification errors involving clinical laboratories. *Arch Pathol Lab Med*. 2006;(130):1106-1113.