Objective:

Learn about best practices and practical solutions for safe and effective specimen handling between the point of collection at the bedside and accessioning in the Lab and all the way within the Lab.
Lab is Central to Safe & Cost Effective Patient Care

Lab is a Strategic Asset
- Integrates Vital Data
- Contributes to 70% of Diagnostic Decisions (1)
- Meets Pay-for-Performance and Joint Committee Quality Measures
- Ensures Patient/Physician Satisfaction
- Pioneers Predictive and Personalized Medicine
- Leads the Convergence between Clinical and Anatomic Pathology

(1) Source: "The Value of Laboratory Screening and Diagnostic Tests for Prevention and Health Care Improvement", The Lewin Group, Inc.

Labs Challenges
- Increase in lab tests with age and aging population are leading to expected increase in number of tests performed per year (increasing demand)
- Coincides with a decrease in the number of technologists in the field – average med tech age is +50 and retirements expected. Meanwhile, less techs coming on board (decreasing supply)
- Labs will be tasked with managing workflow shortages while growing business and maintaining TAT
- Efficient processes and automation are needed to meet the demand with less resources

A Robust Workflow Excellence Solution is Key to Ensuring Reliable Collection and Management of Lab Data

- Utilization of lab tests increases dramatically for 65+ year old people
- 80 million baby boomers today are rapidly advancing into this age cohort
- Rising U.S. healthcare costs continue to put pressure on hospitals to:
  - Maximize efficiency by increasing adoption of automation
  - Improve the quality of care in order to hold down overall healthcare costs

Number of Medical Technologist Programs (2)
- The U.S. is graduating 30% fewer lab practitioners than 10 years ago and 50% fewer than 20 years ago (1)
- Shortage of medical lab personnel demonstrates an urgent need for continued improvement in workflow automation

Source:
- (1) Source: Opening keynote at the Executive War College, April 2010, by Robert Michel.
- (2) Source: National Accrediting Agency for Clinical Laboratory Sciences.
- (3) Source: American Society for Clinical Pathology.
- (4) Source: CMS.
Acute Need for …

✓ Efficiency

✓ Patient Safety

It Only Takes One Mistake…

Johnson v The Methodist Hospital (2006)
226 S.W.3d 525

• Pregnant patient tested positive for HIV during patient’s eighth month of pregnancy
• Blood sent to Quest by Methodist; test was correct but Methodist had mislabeled
• $50,000 damages awarded
What is the standard?

Navickas v. Unemployment Compensation Review Board (2001)
567 Pa. 298, 787 A.2d 284, 288

• A higher standard of care applies to health care workers
• Therefore, the
  – inadvertent failure of a phlebotomist to label a patient's blood sample in accordance with hospital procedure…
  – constituted willful misconduct

Manufacturing Mindset
Lean Six Sigma

A systematic approach to minimizing defects and costs by controlling waste and variance in a production process.

Specimen Lifecycle

Beyond the four walls of the lab

Laboratory
“Closed Loop” Specimen Management

Specimen Lifecycle
Specimen Management starts from the Point of Collection

- Positive Patient ID
- Instant Specimen Label
- Electronic Order to Lab
- Track Collection to Accession

Requisition slips – handwritten x2 or x3
- Time consuming
- Inaccurate
- No tracking
- No accountability – scary (for patients AND nurse leaders)
  - Issues come from speed of attaching stickers.
  - Labeling issues 70% of time.
  - Container and requisition mismatched – person who filled it in and signed – must reconcile.

Surgical Information System
- May be duplicating work

Labeling
- Labeling, labeling, labeling – same as Phlebotomy using mobile printers

PPID and AP Collections Today
• Gilbert v R. J. Taylor Memorial Hospital (218 Ga. App. 399) 1995

Patient underwent a left breast biopsy to test for malignancy.

The tissue specimen was lost during transportation.

Due to lack of diagnostic information, the patient received cancer therapy that included a lumpectomy, lymph node dissection and radiation therapy.

The hospital admitted negligence in losing the tissue sample.
(i) Use at least two patient identifiers when providing care, treatment and services

(ii) Label containers used for blood and other specimens in the presence of the patient
- Applies to: Ambulatory, Behavioral Health Care, Critical Access Hospital, Home Care, Hospital, Lab, Long Term Care, Office-Based Surgery

CLSI – a mention

Ranganathan, Shiyali R
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STAT CHEMISTRY

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Comp. Chem, Mg, Osm, Li
CLM Surgical Workflow

….and into CoPath
Easy and Error Proof Accessioning

Tracking from Point of Collection
How to Maintain Chain of Custody?

Barcoding Promotes Positive Specimen Identification
SPOTs: Specimen Points of Tracking
‘Just in Time’ Reduces Waste & Defects

Specimen Routing

• Ability to define ‘rules’ for a given case type
  – SPOTs
  – Activities

• System enforces rules, offers hints, records deviations

• Real time case progress and management reports for measurements and trending
Specimen Discard

Specimen Discard

Sunquest SMART

Barcoding + Routing + Tracking = Safe, Consistent, Efficient Handling of Specimen
“Closed Loop” Specimen Management

Thank You!