Pennsylvania's Multi-Hospital Initiative to Reduce Mislabeled/Misidentified Blood Specimens

The Legacy

Abigail Geisinger
1827-1921

In 1915, Abigail Geisinger inspired her first surgeon-in-chief, Harold L. Foss, to use his Mayo Clinic training to create a hospital grounded in the concepts of group practice and an interdisciplinary team approach to patient care.

"Make my hospital right; make it the best!"

Today- A Leader in Healthcare

Ninety-six years later, Mrs. Geisinger's hospital has evolved into a fully integrated health services organization that is dedicated to patient care, education, research, and service.

Geisinger serves more than 2.6 million residents in 42 counties and employs over 13,000 people system-wide

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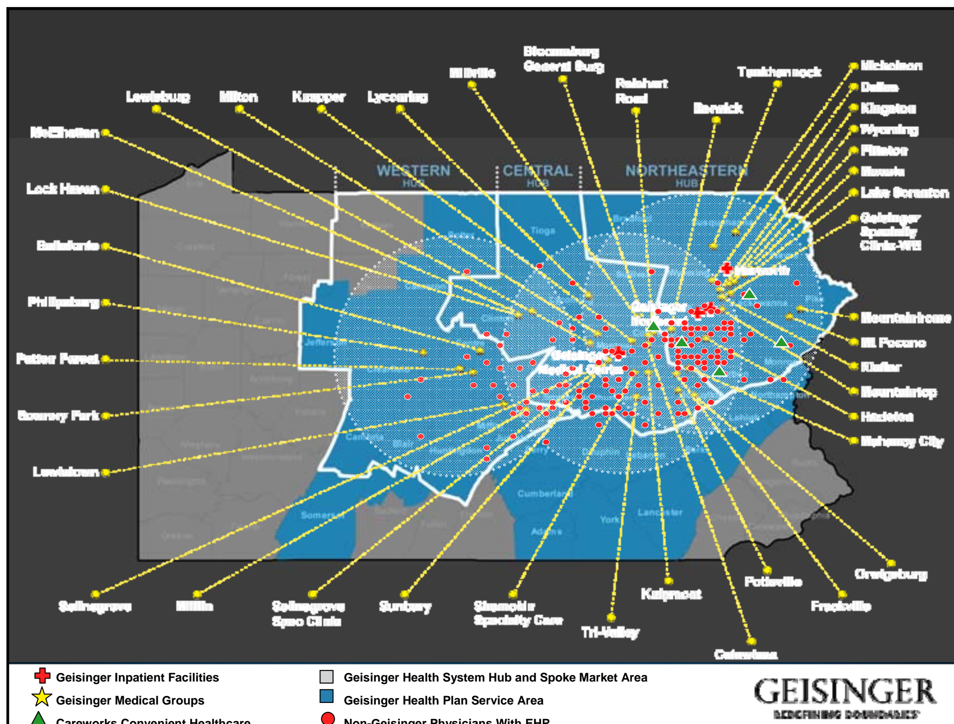
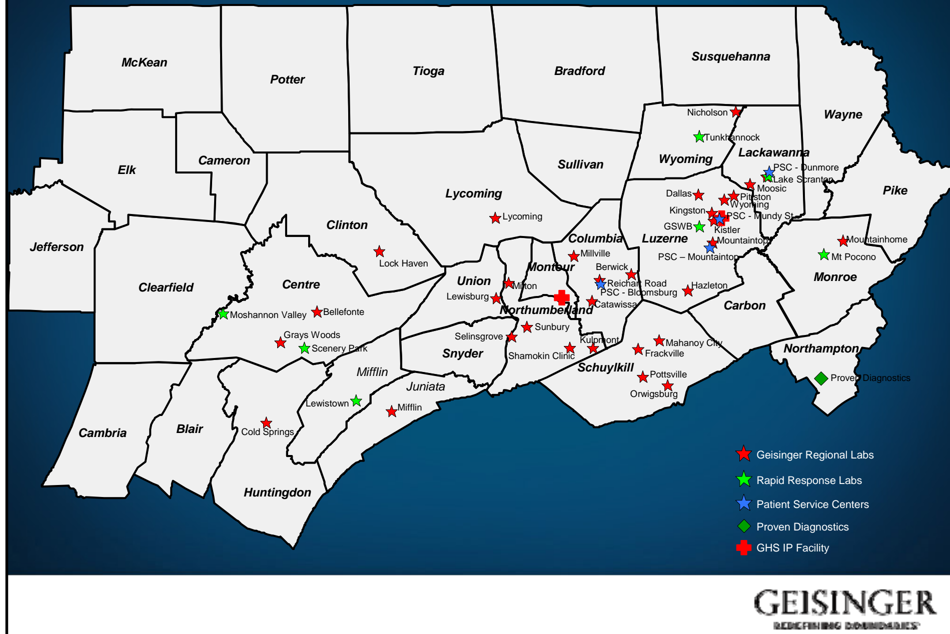


Laboratory Services



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- 2009 – Healthcare facilities in Northeast Pennsylvania are invited by the Pennsylvania Patient Safety Authority to discuss errors associated with labeling of laboratory specimens.
- Nine healthcare facilities agree to collaborate to reduce blood specimen labeling errors.
- Geisinger Wyoming Valley Medical Center participates
- The Pennsylvania Patient Safety Authority facilitates the initiative

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What is the Pennsylvania Patient Safety Authority?

- An independent agency of the Commonwealth of Pennsylvania
- Established under ACT 13 of 2002 Mcare Act (Medical Care Availability & Reduction of Error Act)
- Healthcare facilities must report serious events and near-miss incidents
- June 2004 - Statewide mandatory reporting
- First state in the nation to require this type of patient safety reporting.

http://patientsafetyauthority.org

Goals of the Collaborative:

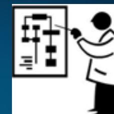
- Decrease blood specimen mislabeling events by 50%

- “The right blood specimen is correctly labeled for the right patient every time.”

Guidelines of the Participants

- Sites will report all events electronically
- An event is defined as:
  - Blood specimens that do not meet the local facilities' criteria for labeling.
- Included:
  - unlabeled, partially labeled, illegible, wrong patient/label
- Excluded:
  - point-of-care testing

Collaborative Tools & Resources



Group Workshops:

- Mapping the process
- Role playing & tips on event investigation
- Human factors
- Just Culture™

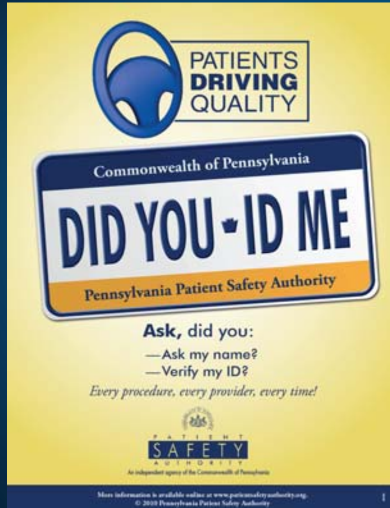
Biweekly conference calls

- Guest Speakers

Sharing Ideas & Experiences

- What's working?
- Cheering others on….

Collaborative Participants Develop a Slogan



This campaign is in use throughout the Commonwealth of Pennsylvania.

Geisinger Wyoming Valley M.C. Initiative

- Select a Patient Care Unit – MICU (Medical Intensive Care Unit)
- Assemble a Team & Choose a Project Manager
  - Laboratory, Nursing, Respiratory, Risk Management & Regulatory PI
- Launch a system-wide electronic educational course for all specimen collectors
- Observe the current process
  - All shifts
  - Lab, Nursing and Respiratory blood collections

Observation Tool

Patient Safety Labeling Collaborative
MICU – GWV M.C. Observation Tool

Lab Order placed by Provider → Who is collector? (Nurse / Lab / Resp.) → Patient ID → Blood Collection → Labeling → Transport to the Lab

Lab Order placed by Provider

*Electronic order placed:
  *before blood collection
  *after blood collection
____
____
____
____

Patient ID

*Collector stated patient name & patient confirmed:
Yes   No

*Collector stated patient DOB & patient confirmed:
Yes   No

*Patient verbalized name:
Yes   No

*Patient verbalized DOB:
Yes   No

*ID band is attached to patient:
Yes   No

*Identifiers on this band checked: Yes   No
What identifiers:
____
____

*ID verified to:
  *Nothing
  *Pre-printed label
  *Requisition
  *EPIC (computer)
  *Hand held device
  *_______________

*ID band scanned (lab only):
Yes   No

*Other:_______________
____
____
____
____

Blood Collection

*How many tubes were collected? ______

*Are tests ordered a blood gas?   Yes   No
Peak/trough? Yes   No

*What was brought to the room to perform the collection?
  *Tubes
  *Syringe
  *Needle/adapter
  *Alcohol/gauze
  *Labels
  *Patient Requisition
  *Ice
  *_______________
  ____

*Other:_______________
____
____
____
____
____
____
____
____

Labeling

*Collector labeled tubes/ syringe: Yes   No

*How many tubes? ________

*Label:
  *Handwritten
  *Epic Label
  *Other pre-printed label
  ____
  ____
  ____

*Labeled:
  *At patient's bedside
  *At nurse's station
  *In hallway
  *At pneumatic station
  *Other _______________
  ____

*Did collector hand write anything on the pre-printed label?   Yes   No
What?_______________

*Other:_______________
____
____
____
____
____
____

Transport to the Lab

*Delivered to lab by:
  *MICU staff
  *Lab transported
  *Pneumatic Tube
  *_______________

*Tubes/syringe in a biohazard bag:
Yes   No

*Was anything else transported with the blood specimen/s?
  *Nothing
  *Extra labels
  *Paper Requisition
  *Resp. Factors sheet
  *Peak/Trough dose sheet
  *_______________
  ____

*Other:_______________
____
____
____
____
____
____

Date: ___________

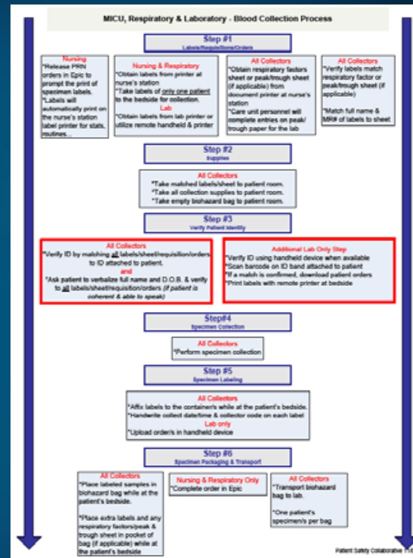
Time: __________

Observer: ________
This tool is only a guide. Document any behavior or action associated with this task.

FAX completed sheets to 808-5424 before September 1, 2009.

Map Best Practice

- Six steps:
  - Labels, Supplies, ID, Collection, Labeling & Packaging/Transport
- Mandatory in-person education of Lab, MICU Nursing and Respiratory Staff by Team members



Bring All Necessary Materials to the Bedside

Supply carts used by lab & by MICU nursing staff. All supplies are available at the bedside. Specimen/s labeled, packaged & ready for shipment when leaving the room.

Standardized collection process posted on carts.

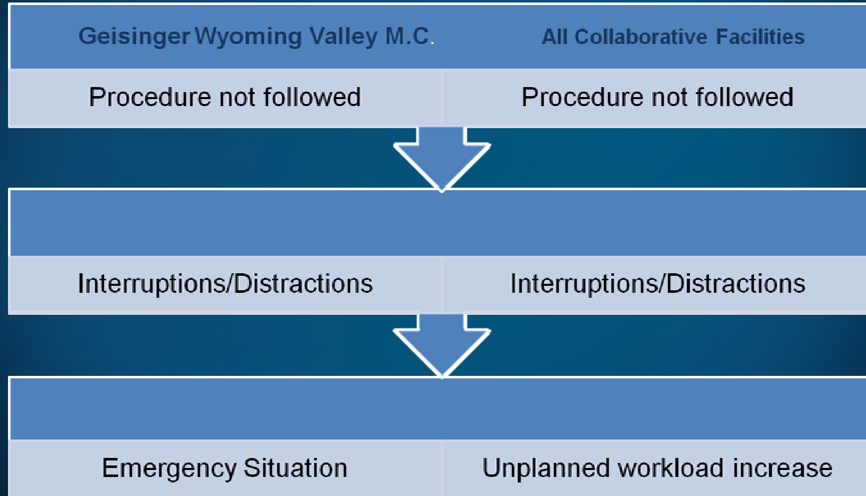
Respiratory continued to use a blood gas collection kit with all supplies.

Post-error Interviews

- Tool developed with input from the 9 facility collaborative group
- Conducted as soon as possible following the event.
- 1-2 team members & employee
- Why? Why? Why?
- What was happening at the time?
- How could this be avoided in the future?

patientsafetyauthority.org/EducationalTools/PatientSafetyTools/specimen/Pages/investigation.aspx

Top Contributing Factors



Geisinger Wyoming Valley M.C.	All Collaborative Facilities
Procedure not followed	Procedure not followed
Interruptions/Distractions	Interruptions/Distractions
Emergency Situation	Unplanned workload increase

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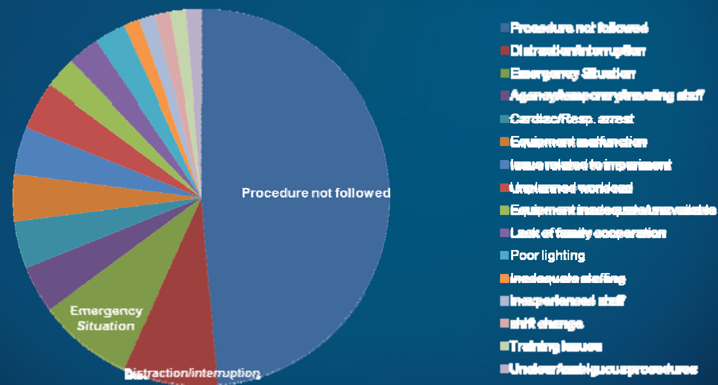
Contributing Factors

Geisinger Wyoming Valley M.C.



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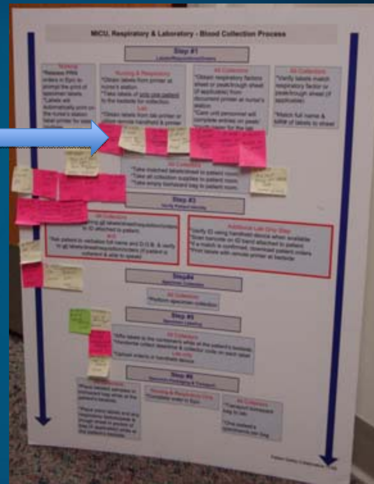
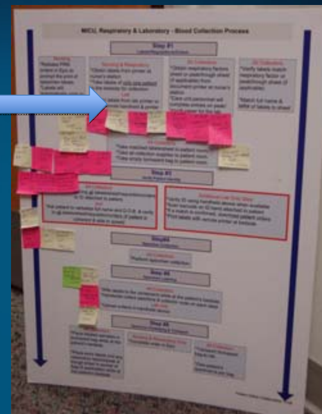
Evaluate Patterns #1

- Mismatches of blood and requisition.
- Barrier Identified: Several blood collections also require a requisition (ABG, whole blood profiles)
- Requisition prints on paper printer, label on label printer. Requisition prints a few minutes prior to label.
- Ideas: eliminate requisition, convert requisition into a label, send information from EMR
- IT & LIS involved however this barrier remains unresolved



Evaluate Patterns #2



- Labels of more than one patient involved in event
- Barriers identified: No break between labels of different patients. Too many labels.
- Blank Label - IT could not find a solution with current printing software.
- Blank label did feed if labels were routed to only one of two printers on unit.
- Unit staff voted to pilot use of only one printer. Temporary resolution.

- Issue of too many labels to be addressed in future LIS upgrade. Barrier remains unresolved.

Evaluate Patterns #3

- ID verification failures.
- Barriers Identified: Lab using electronic ID technology to supplement verbal & visual ID. Most patients not verbal. Inconsistency in practice.
- Team recommendation – Pilot electronic technology with bedside label printing for nursing/respiratory collections. No strong support to implement this technology outside the lab.
- Stressed process redundancy for ID. ID verification discussed in every intervention with front line staff.

Change the Culture

- Launched the “Did You ID Me” Campaign
- Doctoral involvement
- Storytelling – staff meetings
- Case studies with discussion – staff meetings
- Own the process discussions – staff meetings

- Thank you emails following post error interviews
  - “thank you for helping us improve patient safety”

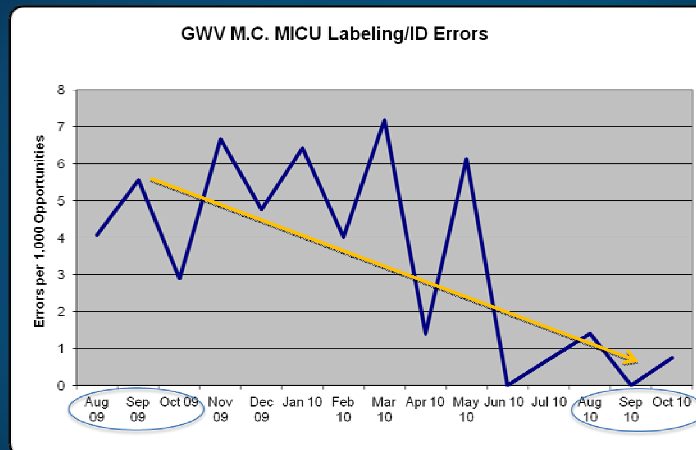
- Balance accountability & an environment of learning
  - human error, at risk behavior, reckless behavior

Case Study Example

The lab received blood collected via a-line labeled as **Patient A**. **Patient A's** hemoglobin was 7.5. The provider phoned the lab to recheck testing as the patient was stable and **Patient A's** previous hemoglobin was 11.4. The lab performed a blood type on the tube labeled as **Patient A** and proved that it could not be the blood of **Patient A**. The blood collector stated:
*"**Patient A** is not my patient. I drew **Patient B** and used the labels that were on his bedside table".*

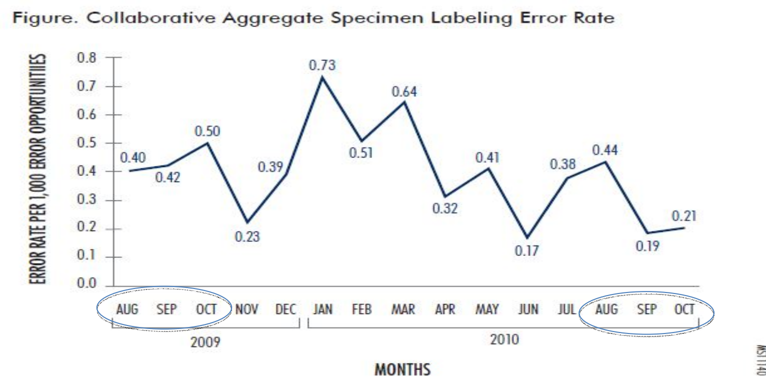
- What is your assessment of this specific case?
- Would following the outlined blood collection process have prevented this error? How?
- What questions would you ask the collector?
- What are your thoughts about leaving labels in a patient's room?
- What are your recommendations to avoid this type of error?

GWV M.C. Performance



81% decrease
(months 1-3 vs. months 13-15)

Overall Collaborative Performance



37% reduction

Reducing Errors in Blood Specimen Labeling: A Multihospital Initiative Pa Patient Saf Advis 2011 Jun;8(2):47-52. http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2011/jun8(2)/Pages/47.aspx

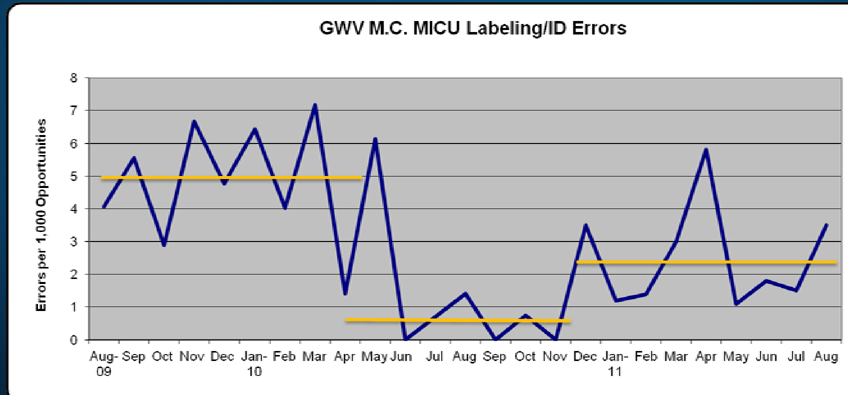
Celebrating Success

- Updates and photos
  - System Publications, Leadership Meetings, Staff Lounge…..
- Food

- Staff Video
  - Staff members verbalizing patient safety steps in the labeling and ID process

Sustainability

- The Collaborative formally ends November 2010
- GWV M.C. team hands over the process to Operations.



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What's next at GWV M.C.?

ID Verification

- Pilot barcode technology for non-lab collections

Label Management

- Pilot bedside label printing
- LIS upgrade - re-evaluate number of labels

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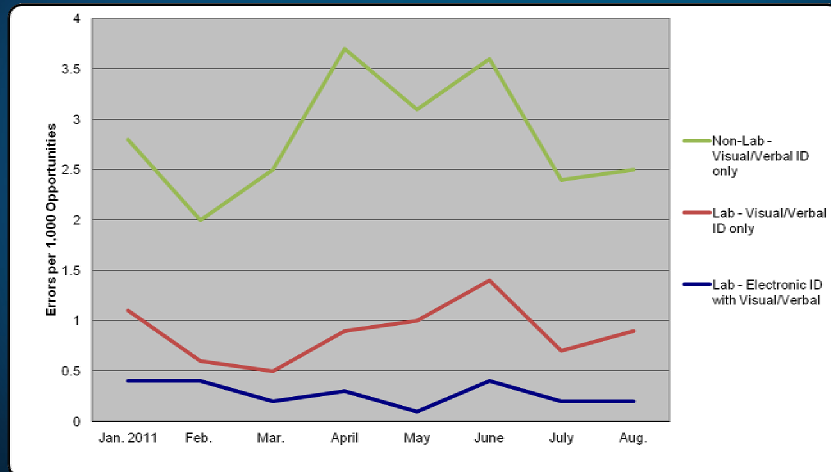
GWV M.C.
Compare Addition of Electronic ID/Bedside Label Printing



Benefits of a Collaborative

- Multi-hospital initiatives gets the attention of your organization
- Benchmark your performance to peers
- Friendly Competition - Similar issues and goals
- Professional Networking
- Educational Opportunities
- Maybe that can work for us?

Lessons Learned

Stay Patient Focused

Move beyond the boundaries of the laboratory to improve laboratory services and patient safety.

Registration Physicians Nursing
Pharmacy Respiratory Radiology

Questions?

Thank You

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