

How to Reduce Clerical Errors – Run Proficiency Testing More Like a Patient Specimen

Mark Shearer, MCLT, MT (ASCP)
CompuNet Clinical Labs
Dayton, Ohio

Disclaimer

- Not endorsed by Quest Diagnostics

So what is a CompuNet?

- Joint Venture Laboratory created in 1986 in Dayton Ohio
- Reference Lab
- Two Hospital Labs
- 2 ER Labs
- 11+ Oncology Practices
- 25+ Patient Service Centers
- Two LIS's for routine testing

So what is a Mark Shearer?

- Director of Chemistry for CompuNet
- Responsible for the technical aspects of the two main chemistry departments
- Responsible for the interfacing of all instrumentation
- Responsible for all aspects of Data Innovations Instrument Manger - rules creation and validation

So how did CompuNet get involved?

- Using Data Innovations Instrument Manager since 2003.
- Using Auto verification since 2006.
- Asked to join CAP and DI's team as alpha testing site 2010.
- Worked on design and functionality in 2011.
- IT department controls the DI server, my team controls the IM software.

What CLIA'88 requires

CLIA '88 — *“The laboratory must test the samples in the same manner as patients' specimens.”* (Sec. 493-801)

Why is this so hard to accomplish?

- Samples have required special handling.
- Limited stability of certain constituents.
- Samples not in automation or instrument friendly containers.
- Manual Data Entry.
- All these contribute to PT failures.

Our Black Belt Project

- There were two main causes of PT failures:
 - Technical
 - Clerical
- Every time there was a failure more steps were added to the process to prevent reoccurrence.
- Each department/section had its own process.
- Fixes in one department where not shared with other departments.

Results from CAP

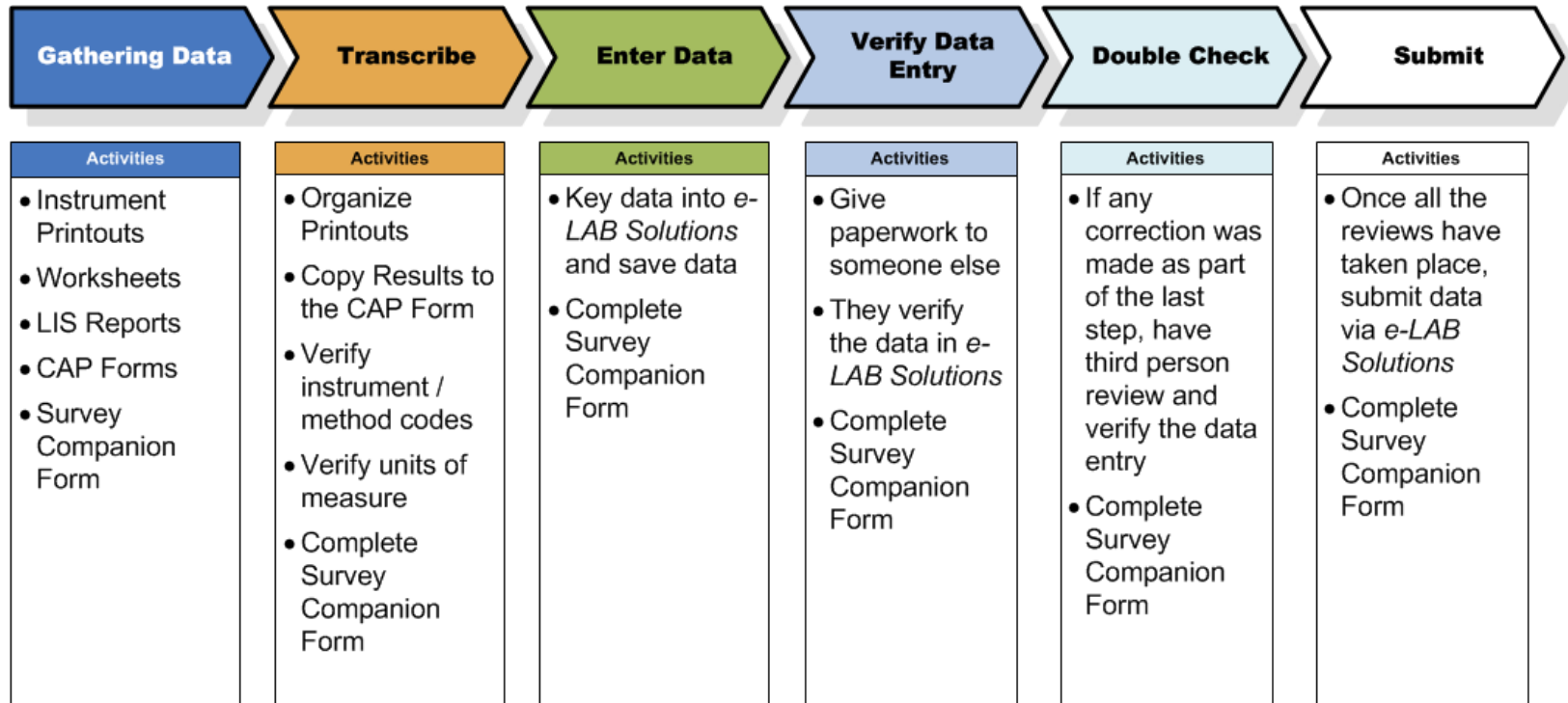
- Clerical errors are the primary cause of CAP PT failure
- 40% of PT errors are clerical

Survey of proficiency testing compliance notices conducted by the CAP between 2007-2011

- This data is only from the PTE's responses.

2 failures where required before the PTE was issued

Process Map for PT Submission



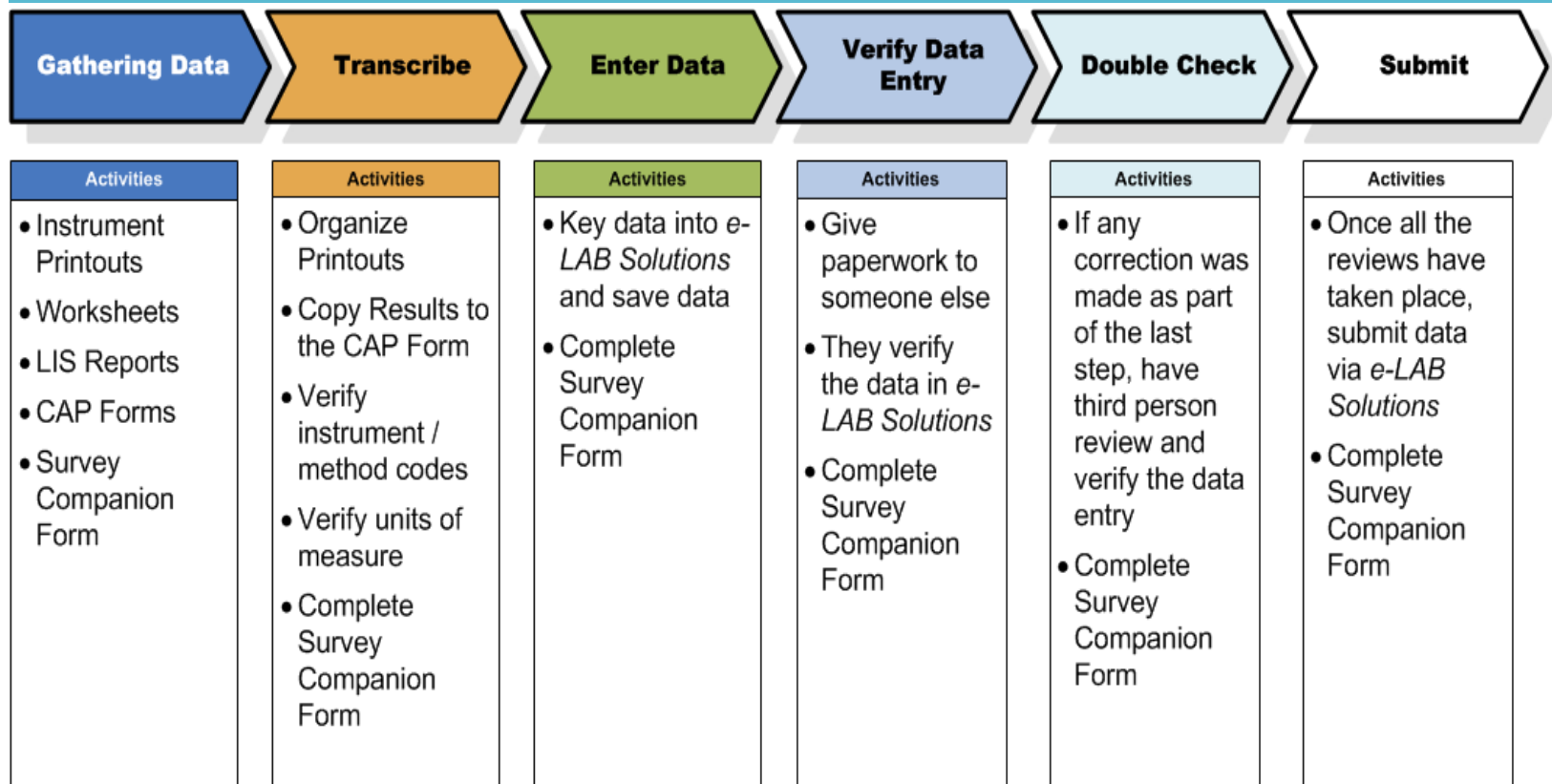
What can be done?

- Joint project between CAP and DI 2010.
- Weekly meetings began 2011.
- Software developed simultaneously.
- Initial communications testing fall 2011.
- Live January 2012.
- First PT results posted February 2012.
- Currently on version 7 of the driver.

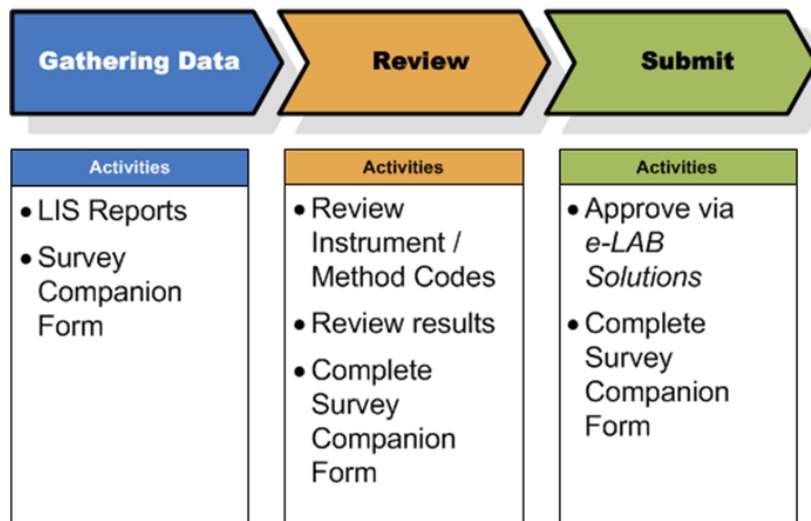
So what is e-LAB Solutions Connect TM?

- Process by which instruments are directly interfaced to CAP.
- Special Instrument Manager driver.
- CAP codes used to identify the analyte and UOM to CAP.
- Results are processed and forms are completed electronically.
- Lab must submit results.

Takes Process Map from



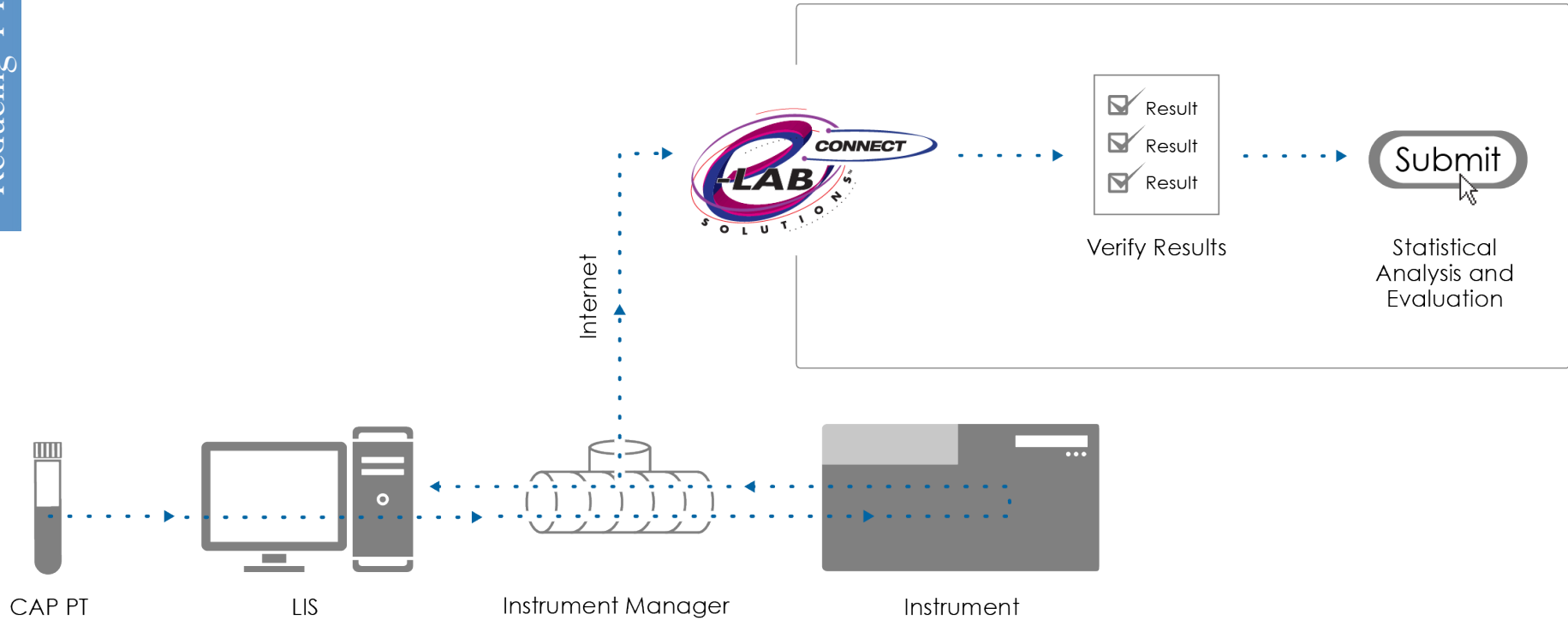
To this



Resulting in

- Reduced “special PT only” steps by 63+%
- Save 400+ hours of staff time annually.
- Hard dollar savings: \$10,000+ in first year.
- Elimination of most clerical errors.
- Better allocate our staff to more productive, patient-centric activities.
- Matches the way patient results are posted in the LIS

What the data flow looks like



Is there a HIPAA risk?

- Specimen ID is last name and Kit number is first name.

Example: CHM-15,12345678

- Rule looks for this pattern and sends *only* these results to CAP.

How is the analyte filed in PT form?

- CAP codes are matched within the CAP driver.
- Performed once for each instrument analyte combination regardless of the number of CAP challenges the analyte appears on.

So what happens?

- Sample logged into LIS.
- Sample placed on instrument.
- Testing is completed.
- Results reviewed by IM rules.
- Results are posted.

Sound familiar?

What does it look like?

- Training Schedule
- Training Transcript
- Claim AP Education
- CME/CE Credit
- Change My Password
- My Account

Log Out

Pay your 2013 membership dues online

Result Form Details

ABC CLINICAL LABORATORY
CAP #: 1234567-01

CA2013 — Chemistry
Kit #: 87654321
Due Date: **July 28, 2013 (revised)**

Are the links to your result forms data disabled?

We are now processing the electronic submissions recently sent by your lab. Please check your kit transaction history and/or check back after **July 10, 2013 5:31:03 PM (CDT)**. If the links are still disabled, please [Refresh](#) this page to check again.

Page	Status	Date Received	Via	Data	Related Links
1	Not Received			Enter Data	Help
2	Not Received			Enter Data	Return to kit list
3	Not Received			Enter Data	Download a blank result form
4	Not Received			Enter Data	View/print your saved data
5	Not Received			Enter Data	View kit transaction history
6	Not Received			Enter Data	Kit Instructions
7	Not Received			Enter Data	
8	Not Received			Enter Data	
9	Not Received			Enter Data	
10	Not Received			Enter Data	

1 - 10 of 39 results shown

>> >>|

Questions?

CAP PT Result Form


Rad49bd122a7c7a84fa3b8568fe9b9c7b-1.PDF (SECURED) - Adobe Reader

File Edit View Window Help


1 / 2 100%

Tools Sign Comment

Please fill out the following form. You can save data typed into this form. Highlight Existing Fields


C-A
2013
 (C1,C3,C3X,CZ,
 CZX,CZ2,CZ2X)

Last Updated: July 9, 2013



KIT 87654321 8 04 25

CAP # 1234567 - 01 SEQ # 01

Products: CZ2

ABC CLINICAL LABORATORY

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Results must be received at the CAP no later than midnight, Central Time by the due date below:

July 28, 2013 (revised)

First Instrument Results, cont'd

Creatinine - Serum

Method Code ⁰¹⁰ 1 1 6 1 Instrument Code ⁰²⁰ 1 4 7 4 Reagent Code not required Unit of Measure ⁰³⁰ ☒ 101 mg/dL ☐ 108 µmol/L Exception Code ⁰⁴⁰ ☐ 11 ☐ 22 ☐ 33

CHM-01 ⁰⁵⁰ 1 0 0 CHM-02 ⁰⁶⁰ 0 8 0 CHM-03 ⁰⁷⁰ 2 4 5 CHM-04 ⁰⁸⁰ 7 3 1 CHM-05 ⁰⁹⁰ 3 7 3

Glucose - Serum

Method Code ¹⁰⁰ 1 1 7 2 Instrument Code ¹¹⁰ 1 4 7 4 Reagent Code not required Unit of Measure ¹²⁰ ☒ 101 mg/dL ☐ 102 mmol/L Exception Code ¹³⁰ ☐ 11 ☐ 22 ☐ 33



“How shall I torture you today?
Put you on the rack? Boil you in oil?
Make you call a technical support line?”

So how bad is it to set up..really?

- Load the CAP Driver.
- Enter the set-up information.
- Match your tests to the CAP Codes.

First there is this

CAP Proficiency Testing Configuration

Web service Information

HTTP(S) Address:

Username:

Password:

Test Service:

Upload Service:

Contact Information

Name:

Email:

Phone:

Transmission Errors

Attempt to Resend Message: Times

Delay Between Retries: Seconds

Kit # Contents

Specimen # Contents

Default CAP Number

Instrument Type Definition

Instrument Definition

	Connection Name	Instrument ID	Instrument Code	CAP Number	Contact Name	Contact Email	Test Submission	CAP Mapping
	MRE1						<input checked="" type="checkbox"/>	Edit...
							<input type="checkbox"/>	

And then this

CAP Proficiency Testing Configuration

Webservice Information

HTTP(S) Address:

Username:

Password:

Contact Information

Name:

Email:

Phone:

Kit # Contents

Specimen # Contents

MRE1 CAP Test Code Mapping

CAP Test Code Mapping							
	IM Test Code	Test Description	IM Fluid Code	CAP Code	CAP Description	Instrument Type	Suppress
				32673-6	CK-MB Activity (U/L)		<input type="checkbox"/>
				13969-1	CK-MB, quant (ng/mL)		<input type="checkbox"/>
				2639-3	Myoglobin, quant		<input type="checkbox"/>
				10839-9	Troponin I, Qnt		<input type="checkbox"/>
*							<input type="checkbox"/>

☒ My Lab Only

Then finally



Then finally



elabsolutionsconnect@cap.org