Point of Care Testing, Collection, & Positive Patient ID

Impact your Organization’s Safety Program AND Streamline Your Lab Processes

Ben Bush, Product Management
Orchard Software Symposium
June 17-18, 2015
Learning Objectives

- Understand when and how errors occur at the point of care, and the impact it has on patient safety, the laboratory and healthcare system
- Discuss common pain points and possible solutions, with a focus on collection procedures
- Overview of Harvest Collect – Orchard’s new point of care collection solution
Medical errors kill between 44,000 and 98,000 patients in US hospitals each year\(^1\)

22.8 Million people have experienced a major medical error, either personally or through a direct relative\(^2\)

Medical errors cost between $17 and $29 Billion annually\(^3\)
Medical Errors at the Point of Care

• 50% of diagnosis errors are a failure to use the indicated tests based on symptoms, 32% are a failure to act on results, 55% involve an avoidable delay in the diagnosis

• Errors everywhere: sample hemolysis, insufficient sample volume, inappropriate collection container, clotted samples, incorrect patient ID, missed physician order, orders misinterpreted, delays in transportation, broken tubes in centrifuges, incorrect results phoned in, erroneous results overlooked

• Mistakes are referred to as laboratory error, but actually are due to poor communication, actions by others involved in the testing process, or poorly designed processes out of the lab’s control
Potential Sources of POCT Errors

Pre-analytic
- Selection of wrong test method (POCT v Core Lab)
- Wrong patient or specimen identification
- Inappropriate container or technique
- Delays in analysis after sample collection, specimen clotting

Analytic
- Device errors and operator errors
- Failure to understand and comply with quality fundamentals
- Devices look simple, sold over the counter, “anyone can do it”
- Assuming devices are fool-proof and always accurate
- Lack of knowledge of test limitations

Post-analytic
- Failure to promptly communicate critical results
- Misinterpretation of results
Consistency in POCT Testing

- Cover all phases of the testing process during training
- Minimize different types of devices and number of staff performing tests
- Proper documentation
- Written procedures and policies
- Build teamwork and consensus: break down the barrier between lab and testing staff
- Don’t blame the individual, fix the system
Accurate patient identification and correct specimen labeling are critical to patient safety issues. Inaccurately identified specimens can lead to delayed or wrong diagnoses, missed or incorrect treatment, blood transfusion errors, and additional laboratory testing. Literature reviews identify specimen labeling error rates of 0.1% to 6.5%.
Effects of Inaccurate Sample Labeling

• 1 in 18 sample labeling errors leads to an adverse event\(^5\)
• $280,000 per million specimens
• Sample labeling errors cost laboratories $200-$400 million annually
Focus: Labeling at Collection

- Specimen labeling errors account for more than half of specimen identification errors\(^5\)
- Specimen labeling errors result in a third of adverse effects\(^9\)
- Case study: The Valley Hospital in Ridgewood, NJ
# Contributing Factors to Mislabeling

<table>
<thead>
<tr>
<th>Domain</th>
<th>Factor</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational</td>
<td>Procedures not followed</td>
<td>49%</td>
</tr>
<tr>
<td>Work Environment</td>
<td>Distraction/interruptions</td>
<td>13%</td>
</tr>
<tr>
<td>Task factors</td>
<td>Emergency situation</td>
<td>4%</td>
</tr>
<tr>
<td>Task factors</td>
<td>Inexperienced staff</td>
<td>3%</td>
</tr>
<tr>
<td>Team factors</td>
<td>Unplanned workload</td>
<td>6%</td>
</tr>
<tr>
<td>Team factors</td>
<td>Communication</td>
<td>3%</td>
</tr>
<tr>
<td>Operational</td>
<td>Staff factors</td>
<td>6%</td>
</tr>
<tr>
<td>Other</td>
<td>Misc.</td>
<td>16%</td>
</tr>
</tbody>
</table>
Barriers and Interventions - Technology

• Barriers:
  – Technology issues with label printing
  – Lack of strong (or any) wireless signal
  – Inability to print labels at source
  – Differing collection technologies

• Interventions:
  – Install label printers at point of care, or provide mobile printers
  – Provide electronic system for specimen collection that can be used remotely and offline
Barriers and Interventions - Communication

• Barriers:
  – Communication issues between nursing and staff
  – Lack of teamwork and cooperation across service lines

• Interventions:
  – Hold regular meetings between laboratory staff and nurses
  – Facilitate transferring patient labels, e.g., binder system
Barriers and Interventions - Education

• **Barriers:**
  – Lack of knowledge regarding phlebotomy policies/procedures
  – Physicians ordering wrong tests or setting wrong priorities

• **Interventions:**
  – Implement mandatory competency testing for specimen labeling process
  – Educate staff regarding proper patient ID procedures
  – Work with physicians
Barriers and Interventions - Leadership

• **Barriers:**
  – Lack of management support
  – Losing momentum for collaborative work to other priorities
  – Difficulty in maintaining compliance with new procedures

• **Interventions:**
  – Create dashboard/scorecard for collaborative team
  – Use dashboard for lab draws to focus staff on labeling issues
  – Increase awareness with posters, pins, etc.
Point of Care Collection Module: Use Cases

- Hospital setting
  - Shared resources, nursing staff, regularity of rounds
- Clinical setting
  - Process efficiency, variation in draw sites
- Mobile phlebotomy
  - Positive patient ID, lack of connectivity
Point of Care Collection: Sign In

Username
Password
Sign In

Trouble signing in?
Point of Care Collection: Sign In
# Point of Care Collection: Collection List

## Collection List

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>Room</th>
<th>Location</th>
<th>Time</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Krystal Rush</td>
<td>R10</td>
<td>North Wing Floor 1</td>
<td>2015-04-07 08:33:42</td>
<td>Routine</td>
</tr>
<tr>
<td>Drew Waddell</td>
<td>R14</td>
<td>South Wing Floor 1</td>
<td>2015-04-09 10:21:17</td>
<td>STAT (mixed)</td>
</tr>
<tr>
<td>John Wallihan</td>
<td>R06</td>
<td>East Wing Floor 1</td>
<td>2015-04-09 08:28:12</td>
<td>ASAP</td>
</tr>
<tr>
<td>Nancy Sticker</td>
<td>R27</td>
<td>West Wing Floor 1</td>
<td>2015-04-10 08:36:43</td>
<td>STAT</td>
</tr>
</tbody>
</table>

### Containers

- **Lavender Top**: 4mL
- **Urine Cup**: 1L
- **Tiger Top**: 10mL
- **Blue Top**: 10mL

**Print Labels**
# Point of Care Collection: Alerts

## Collection List

**Last refresh time:** 06/04/2015 04:07 PM

<table>
<thead>
<tr>
<th>Patient Name</th>
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<td>2015-04-07 10:21:17</td>
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<td>John Wallihan</td>
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<tr>
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<td>R27</td>
<td>West Wing Floor 1</td>
<td>2015-04-07 08:44:49</td>
<td>Routine</td>
</tr>
</tbody>
</table>

**Alert:** 4/20/2015 11:19 AM Patient bites ***

**Priority** | **Collection Time** | **Collected**
---|--------------------|----------------
STAT | Not yet collected | |
Routine | Not yet collected | |
### Collection List

<table>
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<td>STAT</td>
</tr>
</tbody>
</table>

**Unable to Collect**

<table>
<thead>
<tr>
<th>Order Choice</th>
<th>Container</th>
<th>Image</th>
<th>Collection ID</th>
<th>Priority</th>
<th>Collection Time</th>
<th>Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Blood C...</td>
<td>Lavender Top</td>
<td>![Image]</td>
<td>4546491</td>
<td>STAT</td>
<td>Not yet collected</td>
<td></td>
</tr>
<tr>
<td>BMP: Lipid</td>
<td>Tiger Top</td>
<td>![Image]</td>
<td>4546491</td>
<td>Routine</td>
<td>06/04/2015 04:08 PM</td>
<td>✅</td>
</tr>
</tbody>
</table>

4/20/2015 11:19 AM Patient bites

---

**Patient Name:** Drew Waddell  
**Patient ID:** 123456789-2

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**Sign Out**

**Host: Available**
## Point of Care Collection: Submitting

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### Clinical Questions

- *(CBC) Fasting?*

- *(Lipid) Fasting?*
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### Non-Reportable comments

### Reportable comments

**Shortcut Help**

**Containers**  **Clinical Info**  **Comments**

**Print Labels**  **Submit**
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• Overview of Harvest Collect – Orchard’s new Point of Care Collection solution
## Upcoming Training Classes

### 2015 Training Classes

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Start Date</th>
<th>End Date</th>
<th>Course Close Date</th>
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</thead>
<tbody>
<tr>
<td>August 2015 Harvest LIS System Administration</td>
<td>8/3/2015</td>
<td>8/7/2015</td>
<td>7/10/2015</td>
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<tr>
<td>August 2015 Harvest LIS Advanced User</td>
<td>8/10/2015</td>
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<td>7/17/2015</td>
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<td>September 2015 Harvest LIS System Administration</td>
<td>9/14/2015</td>
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<td>8/21/2015</td>
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<tr>
<td>October 2015 Harvest LIS Advanced User</td>
<td>10/19/2015</td>
<td>10/22/2015</td>
<td>9/25/2015</td>
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</tbody>
</table>

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Day 2 P.A.C.E.® Program Information

• **P.A.C.E.® Provider Number:** 526
• **Program Number:** 526-902-15
• **Program Title:** Day 2 Orchard Symposium 2015
• **Speakers:** Nancy Stoker, Dr. Michael Glant, Ginger Wooster, David Bracewell, Beth Eder, Ben Bush, John Wallihan, Jacob Eickhoff, Wendy Forgey, Ryan Howard
• **Contact Hours:** 4

Orchard Software Symposium – June 17-18, 2015 – Orlando, Florida
Questions?

Thank you!
Sources
