Interdisciplinary Roles for Clinical Laboratory Scientists

Kathleen L. Hansen, CLS(NCA)
Interim President, Fairview Laboratory Services
Director, Laboratory Operations, University of Minnesota Medical Center - Fairview

Brief history at UMMC-Fairview

- Early 1990's – established laboratory presence on SICU with "the cart" (mobile whole blood gas and electrolyte analyzer)
  - Improve TAT at lower cost than POCT
  - Control number of orders in a 24 hour period; established requirement for new orders q 24 hours
  - Have a CLS be the "face of the laboratory" (rather than phlebotomists), available to consult on test ordering, specimen requirements, etc

Evolution of laboratory presence on PCU's

- Mobile laboratory concept eventually expanded to PICU, CCU, and OR (where it includes point of care PTH assays)
- Full service satellite laboratory on the NICU dates to 1960's
- Decentralized blood collection in multi-specialty clinics (Primary Care Center, Transplant Center, Bone Marrow Tx Clinic, and Pediatric Clinic)

“Responsibility Assignments”

- Mid-1990’s: Each staff (CLS and CLT) in the core laboratory was given an individual responsibility for a piece of equipment, collection of QA data such as TAT, or to act as a liaison to a PCU.
- PCU liaisons expected to visit their unit at least weekly (attend nursing staff meeting if possible) to answer questions/concerns. Focus mostly customer service issues.

Interdisciplinary PI Teams

- Two years ago, hospital's PI department reorganized and established an interdisciplinary PI team on each PCU. Membership was to be physicians, nursing, pharmacy, social work/care coordinators.
- Laboratory "invited ourselves" to participate and appointed a CLS to each unit's team. Teams meet monthly.

What have the PI teams done?

- Address cost per case (utilization) issues
- Support CPOE implementation
- Support implementation of Verisafe (positive patient ID using bar coded armbands)
- Support implementation of new process for ordering blood products
- Limited experience with interdisciplinary rounding

Cost per case

- Focus on provision of data about utilization of resources (laboratory testing) and comparing with benchmarking data
  - TAT of results on day of discharge – work with care coordinators to reduce length of stay
  - Reduction of “duplicate” orders
  - Implementation of requirement to rewrite orders every 24 hours
  - Provision of data on ordering patterns of individual physicians for best practice analysis

CPOE Implementation

- Physicians on pediatric services now place own orders into computer (vs writing in chart and having HUC enter).
  - Not reviewing or noticing current orders before placing new ones.
  - Repeat orders not being combined.
  - Routine labs not combined with timed draws
  - Patient/family satisfaction down.

CPOE Implementation

- Pilot for 13 days (65 hours) of CLS on pediatric units helping physicians with CPOE
  - Cost savings of cancelled tests and combined collections during this pilot was not enough to cover the salary investment.
  - Only application of retained learning by physicians will justify cost over time.
  - Cost avoidance (more timely discharge) has not been quantified
  - Evening availability of laboratory staff would have been helpful

CPOE Implementation

- Added challenge in a teaching hospital is constant turnover of residents
- CLS who did the pilot felt there was another level of “unnecessary” tests that she did not feel comfortable challenging. A person with specific clinical training in test utilization (and best practice data) could do more.

CPOE Implementation

- “no one person is taking full responsibility for laboratory order management”
- Contrast with PharmD review of all drug orders, even if placed directly by physician

Verisafe implementation

- JCAHO National Patient Safety Goal (NPSG) about use of two identifiers is being modified to 2007 to require labeling of samples at the bedside.
- Barcoded armbands used for patient ID for specimen collection (both by laboratory and nursing staff) and blood administration. Labels generated at the bedside.

Ordering of blood products

- Several “near miss” events related to confusion about the need to order irradiated blood products for BMT and oncology patients.
- Paper and computer ordering forms designed which require physician signature.
- Success mixed due to limitations on provision of support for physicians during implementation

Interdisciplinary rounding

- Physicians, nurses, PharmD
- Ad hoc: OT/PT, laboratory, chaplains, nutrition, care coordinators
- Some short pilots where laboratory has joined rounds on a daily basis.
- CLS staff from core laboratory feel they make a contribution, but must sometimes go back for answers about “special diagnostic” lab services

Interdisciplinary rounding

- What constitutes over-ordering?
- Hospital is about to implement KBC (Knowledge Based Charting) – software which contains interdisciplinary notes that can be seen by all caregivers
  - “lure” physicians to KBC site by displaying laboratory results there
  - See this as a venue for notes about how best to collect samples from this patient.

Other observations

- Nursing clearly does not want to be the middleman/communicator between physicians and the laboratory.
- Those instances where our laboratory has an ongoing presence closer to the patients and physicians lead to far better customer satisfaction.
- Offsets the perception that we are there to “police” – as is the case with POCT coordinator.

Other observations

- We believe that many more opportunities exist for cost savings to support a laboratory clinician on the PCU's.
- Large multi-speciality clinic may afford even more opportunities. Genetic counselors help manage some testing, but their scope and availability is limited.

Contact information

- Kathy Hansen

  khansen3@fairview.org

  612-273-5090