Implementation of Computerized Lab Ordering in the Outpatient Oncology Setting

Paper Lab Orders

Paper lab orders were often inaccurate, illegible, incomplete or missing. This resulted in treatment delays, increased patient dissatisfaction and potential patient safety issues. The challenges to implementing online lab ordering in the outpatient Hematology/Oncology clinics included:

- Chemotherapy is most often administered in the outpatient setting and drug administration is dependant on blood test results prior to treatment, resulting in a large volume of laboratory testing.
- The laboratory needed to maintain a rapid turnaround(TAT) of lab results in order to complete the chemotherapy administration on the same visit
- The responsibility for ordering laboratory tests needed to be shifted from the clinical nurse to the ordering provider.
- Genetic testing and research specimen collection had different processes that needed to be integrated with online lab ordering.

Efficient and Safe Ordering

- The providers are now ordering all lab tests for chemotherapy patients online including genetic testing, study labs and send-outs.
- Delays in TAT do occur; investigation and data collection by the laboratory is in progress.
- The consistent weekly meeting of this multi-disciplinary group resulted in a reduced rate of collection errors

Our Team

Ellen Volpe	Director of Operations, Hematology/Oncology
Kerry Brown	Director of Operations, Hematology/Oncology
Annie Whatmough, RN	Clinical Director Hematology/Oncology/Pheresis
Randa Mowlood	Manager, Practice Operations
Anne Marie Cella	Practice Administrator
Holly Dowling, RN	Unit Based Educator
Gina McCormick	Operations Director, Pathology
Julie Rockwell	OMR Support Team Leader

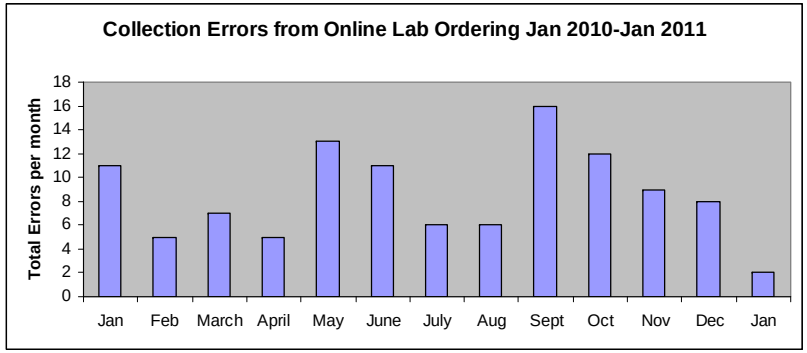
The Approach

The multidisciplinary team met weekly to:

- Gather information about the most commonly ordered tests and compile them into order-sets for specific populations such as bone marrow transplant group and the coagulation disorders group
- Examine the ordering practice of Attending physicians, Fellows, NP's and PA's
- Share input from the nursing staff who have traditionally ordered the labs and the phlebotomists who draw the specimens
- Examine the delivery process of a specimen from collection through test completion

Unexpected Improvements

Since implementation of lab ordering in Hematology/Oncology in Nov. 2009, the meeting of this group has allowed us to examine causes of collection errors such as lab specimen mislabeling, wrong tube collection and specimens not collected.



When is STAT not STAT?

Prior to on line ordering, the lab knew to process all HO specimens stat by the color of the lab slip. However, the OMR lab slip was identical to all OMR slips so the visual cue was lost. A color coded specimen bag was supplied, yet TAT for results continued to lag. It was discovered that upon arrival in the lab, the bag was discarded and the specimen was again seen as "routine" since online ordering did not allow for STAT designation. With WebOMR support, a system modification was made to order tests with STAT status.

Continued Efforts

The team continues to meet every other week to review errors, consider the addition of recently developed oncologic tests, review TAT and improve efficiency.

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