Reducing Number of Extra Blood Tubes Drawn in the ED: Our Hospital is Over the Rainbow

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Background
Urban emergency department with 37 beds and over 70,000 annual patient visits. Chest Pain Cycle III and CHF Accredited Center.

Objective
The goal of the project is to reduce the number of blood tubes collected by ED staff by using the patient’s presenting chief complaint as the basis for the color blood tube to be collected.

Unplanned Benefits
- Improved specimen integrity leading to a decreased hemolysis rate
- Decreased quantity—not-sufficient (QNS) and clotted specimen rates

PDCA Cycles

Cycle 1
October 2011–February 2012

Act:
Consolidate blood tests and use employee number instead of staff initials

Do:
Set protocols and design the badge buddies

Check:
90 percent reduction in blood tubes

Cycle 2
February 2012–Present

Act:
Continue with current practice

Do:
Get rid of red top test tubes, reeducate staff, continue weekly monitoring

Check:
Blood tubes usage reduced by 67 percent from baseline

Results/Outcomes

<table>
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<tr>
<th>Month</th>
<th>Baseline</th>
<th>ED Visits</th>
<th>Red Top Tubes</th>
<th>Yellow Top Tubes</th>
<th>Blue Top Tubes</th>
<th>Green Top Tubes</th>
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Sustainability
- Monthly reporting of data by lab to ED
- ED supervisor monitors data and coaches staff as needed
- Initiative included in new staff orientation and training

Lessons Learned
- Partnership between ED and lab was essential for success
- Staff-understanding of initiative increased buy-in and accountability
- Consistent monitoring and communication of results to team improved compliance

Reference
McGrath, J., Rankin, P., & Schendel, M. Let the data speak: Decreasing hemolysis rates through education, practice, and disclosure. Journal of Emergency Nursing (38), 239-244.