Code Yellow

Overview
Code Yellow is a project aimed at maximizing patient safety for pediatric oncology patients who present with fever and neutropenia. For best clinical outcomes, these patients should receive antibiotics within an hour of presentation. The team at Monroe Carell Jr. Children’s Hospital at Vanderbilt designed a multispecialty quality improvement process to assure delivery of antibiotics within one hour in a variety of clinical settings.

Objective
Increase the percentage of pediatric oncology patients with fever and neutropenia who received antibiotics within 60 minutes of arrival at the pediatric oncology clinic and pediatric emergency department (ED). The aim was to raise the delivery rate from 30 percent to 90 percent.

Methods
The team used the Model for Improvement to organize and measure performance with a key driver diagram and statistical process control charts. They started with focused efforts in the oncology clinic and spread that work to the pediatric ED. Through regular monitoring and measurement discussed at weekly huddles, the group quickly identified barriers to address and successes.

Key Measures
- Measure the monthly percentage of febrile neutropenic oncology patients who received antibiotics within 60 minutes using a P chart
- Focus on standard practice guidelines and timely identification of patients
- Simplified protocol
- Visual “fever” cue to inform staff of the need for immediate triage
- Improved communication among team members, and between oncology and ED

Lessons Learned
Systematic evaluation using quality improvement processes helps teams identify additional barriers, which can lead to innovative solutions.
- Recommend project leadership by a quality improvement-focused health care provider who can identify barriers to progress.
- Identify a physician and nurse champion in all clinical areas.
- Closely monitor the process to make changes in a timely fashion.
- The project sparked initiatives in other departments to support this work.

Improved outcomes
89% of targeted patient population received antibiotics within 60 minutes

“This is a well executed project with good use of improvement methodology and measurement. Assessment of the problem is logical and the reporting of the interventions is explicit so other hospitals can see exactly what was done and the theory of change.”
—2017 PQA judge

Hospital Contact
Caroline Epps, MSN, RN
Quality and Patient Safety Advisor

Find this project and others at childrenshospitals.org/award