

Quality and Safety Committee



Letter from the Chairman

Dr. Craig Hillemeier
Professor and Chairman

I consider myself lucky to be able to work in a Children's Hospital especially here at the Penn State Hershey Children's Hospital. I sense that many others feel a similar sense of pride in being able to help to children and their families when they need it most. The skill, dedication and work ethic here at PSCH is truly amazing work

Since we all work as hard and diligently as we can to fulfill our mission, it is troubling when quality and safety issues arise. Systems errors occur in all organizations and hinder our ability to provide the highest quality care that our children deserve. These issues occur in many forms and for many reasons. Here at the Children's Hospital we are constantly dealing with complex systems including multiple numbers and types of health care providers; interactions between mechanical and computer systems; as well the large number and variety of sick children we care for.

I am very proud of the safety and quality efforts that our staff and faculty have instituted. We are engaged in an advanced system of analysis, working hard to correct current problems and identify potential problems before they reach our patients. The ever increasing attention that we devote to these efforts, as evidenced by efforts such as the well-attended Town Hall meetings, multi disciplinary committees in every unit, and even this newsletter honors the children and families that we serve. You have my sincere thanks for this work to date and the promise that it holds for the future.

From the Editors

This is the first issue of our Children's Hospital Quality and Safety Newsletter. In these pages, we hope to highlight our ongoing quality and safety programs and new innovations. There are numerous quality teams working within the hospital and we hope to use this newsletter as just another way of informing the Children's Hospital family of our successes as well as those areas that still need improvement. We believe that continuous quality and safety improvement is vital to our ability to provide top-notch care for the children and families we serve. We encourage you to get involved in one of these projects, together; we can make the Children's Hospital even better.

Influenza Vaccine Update

Dr. Gavin Graff
Chief, Division of Pediatric Pulmonology

We all know that the flu can be life threatening, so protecting our patients from getting the flu is an important priority. Our multidisciplinary team was assigned the task of trying to improve on last year's influenza inpatient vaccination results. Our committee met on a weekly basis working through the influenza process. In order for the influenza project to be successful we decided that this would be a nursing driven protocol in which a nursing assessment occurred to determine the eligibility of the child for the vaccination. If a child met the criteria, the parents were asked to give a verbal consent for the vaccination. If a parent consented, the influenza vaccine would be given the next morning at 9 AM. In addition, the committee discussed the protocol with all Division Chiefs and obtained their agreement. We hope to achieve a realistic goal of 75% immunization throughout the influenza season. To achieve that goal, we will be working with information technology to ensure ongoing monitoring of our data and staff feedback. Since this is an ongoing project, we will also be using this information to improve the program's effectiveness in the years to come.

Catheter-Associated Blood Stream Infections

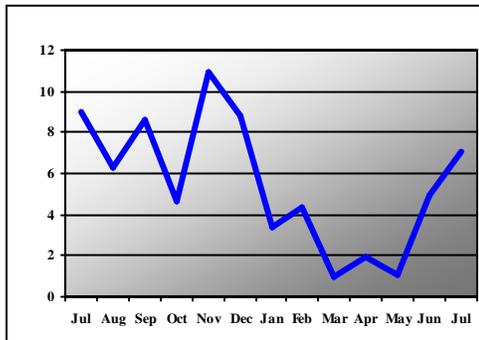
Simple as it seems, the development of intravenous catheters which provide our patients with fluid, medications and nourishment, have been one of the greatest technological medical advances of the last century. While intravenous therapy has saved countless lives, it has also been the sources of untold numbers of hospital- acquired blood stream infections. These catheter-related infections are responsible for increased patient morbidity and mortality as well as higher length-of-stays and hospital costs. The cost of treating a blood stream infection has been estimated to add 34,000-56,000 dollars and as much as 10 extra hospital days when compared to patients without these infections.

A major institutional goal has been to decrease the rates of catheter-associated blood stream infections (CABSI). Dr. Michael Dettorre has led the Children's Hospital effort at decreasing CABSI and reported on our yearly results to date. He noted that the PICU has long been an institutional leader in the control of bloodstream infections. When benchmarked against other PICUs participating in the National Association of Children's Hospitals and Related Institutions (NACHRI) our unit has a substantially lower rate of bloodstream infections .

Occurrence reporting

Gloria Gingrich, RN
Pediatric Clinical Performance Specialist

A major reason behind our success has been the adoption standardized procedures for line insertion and maintenance. The development of these standards along with improvements in nursing education and documentation have been associated with a decrease in the rate of Children's Hospital CABSIs during the first 10 months of the 2007-2008 year with average



rates decreasing from 9 to less than 2 CABSIs/1000 line days. However, those rates rose during the last two months of the year and ended the year

at 7.1 infections/1000 line days (Fig). Most of the increase appeared to come from an increase in bloodstream infections on 7 W and the PIMCU.

Dr. Dettorre discussed several possible reasons for the recent increase in infections rates including; excessive line access (in some cases up to 20 times/day); increasing nursing stress; and possible problems with our safety culture. Improvements suggested were the adoption of stringent line maintenance practices; reduced line access; and the elimination of unnecessary blood draws.

During the question period Dr. Dettorre was asked what a reasonable goal was for the bloodstream infection rates and he noted that there were hospitals that had decreased their CABSIs rates to essentially zero. This is a wonderful goal for our Children's Hospital but one which will require significant effort and involvement of all concerned.

The Pediatric Dashboard

Darryl Walter

The PSHCH Quality & Safety Committee is preparing a dashboard focused on the pediatric patient population. The objective of the dashboard is to create visibility and raise institutional awareness of quality and process improvement opportunities. It will provide a mechanism for communicating priorities and measurable goals and deliver insights "at a glance".

The intent is to keep the dashboard simple by minimizing the number of clicks required to get to "localized" information. The dashboard will be limited to summary level data but will provide links to more detailed information.

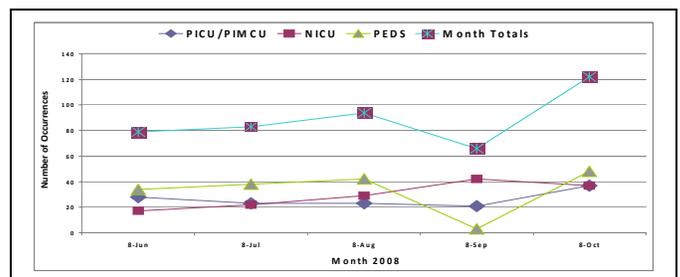
The committee is working through a number of challenges in order to provide a valuable tool. The first challenge to overcome is determining meaningful metrics for which we have data. Metrics which have been considered include Asthma Protocol, CLUE, Hand Hygiene, Influenza Immunization, Medication Reconciliation, Nosocomial Infection Markers, Occurrence Reporting, Pain Minimization and Patient Satisfaction.

Computerized occurrence reporting has improved our ability to review events that occur within the Children's Hospital. The use of the web-based system allows for easier and timelier documentation of any deviations from best practice so that we can now access, tabulate and compare our findings more easily. This, in turn, will help us to improve the quality of our care; increase patient and staff satisfaction and work more efficiently and effectively. Occurrence data is reviewed and problems are resolved on a continual basis. Some problems can be easily addressed while other, more complex problems, require more complex, multi-disciplinary analysis. We want to encourage everyone to utilize the on-line occurrence process whenever they encounter a performance deviation. It's only by identifying and examining our performance that we can hope to improve. High quality organization encourage occurrence reporting, recognizing that each occurrence is a chance for quality improvement. We

Questions About Occurrence Reporting

- Will I get in trouble if I report?** No, we recognize that the vast majority of occurrences are system-related and not due to individual errors. If you had this problem, chances are other people have, or will have the same problem. Occurrence reporting is aimed at the problem and not the person.
- Should I report potential problems or only those that have actually occurred?** Please, please report potential problems as soon as you recognize them. Studies have shown that most mishaps never reach the patient and that those that do are only the tip of the iceberg. Reporting potential problems lets us fix the system and prevents even worse mishaps.
- I have reported in the past, and nothing seems to have changed, why bother?** In the past, the paper process was too cumbersome and the institution just did not have the personnel to effectively deal with all occurrences. We are working hard to improve our response, to get back to the person submitting the report and let them know what we have found and what we will be doing about it.

know that only a fraction of errors get reported and are asking your help to increase the number of reports. We believe that analyzing occurrence reports will allow us to focus in on a variety of new projects. As a regular part of this newsletter we will be examining Children's Hospital occurrence reporting. Here is a graph demonstrating the number of occurrence



reports submitted each month for several pediatric wards. As can be seen, there was an initial upturn in the reporting rate that has now flattened out. In the months to come this section will analyze different report categories.