

From the Editors:

Matt Wain

Administrator, Penn State Hershey Children's Hospital

We are fortunate to work in a profession that exists to help children, to train the next generation of care providers and to discover and validate biomedical knowledge. As a non-clinician, it's always a pleasure for me to venture into our clinical and academic areas and see the talents of the many dedicated people working together as high performing teams delivering an exceptional level of service and care. Yet, every day, I see the world I am most familiar with, the business world, involved more and more in the delivery of care. Today and even more so in the future, one of our primary challenges will be our ability to mesh business with these tenets of service and care. As we consider this challenge, I believe it's "quality" that is the key to successfully merging these factors.

In other industries, quality is the path to continued success. Organizations that focus on quality and service eliminate waste, attract more customers and increase profits. In our case, that business relationship can be unsettling for health professionals and, from solely a business standpoint, the return on investing in quality programs in healthcare is not as straightforward. Nevertheless, a focus on quality is the future direction of health care. In fact, when our Penn State Hershey Medical Center Board of Directors evaluates our hospital performance, 50% is fiscal but the other 50% represents a variety of quality measures that includes quality indicators; medication errors rates; patient satisfaction; hospital acquired infection rates, as well as others. In addition to our normal insurance reimbursement, our major Insurance partner, Highmark, has contracted with us to pay us an additional year-end payment if we achieve specific quality improvement goals (last year we received an additional \$3.3 million based on the quality of our care). Quality has essentially become the fulcrum on which business and the delivery of care balances itself.

With that in mind, our quality efforts are as important to our compensation, fiscal success, campus goals and national recognition as clinical expertise, knowledge, availability and outcomes are to our performance as individual healthcare providers. Thank you for your hard work and dedicated efforts that ensure our patients and their families remain in good hands.

Restoring Patient Satisfaction

Stephanie Reed, RN and Lauren Bonitz, RN

We utilize Press-Ganey to assess patient satisfaction throughout the inpatient service. Although comparison of the Press-Ganey Inpatient Pediatric Patient Satisfaction scores for 4th

Quarter 2008 and 1st Quarter 2009 shows improvement, the council plans to continue to its efforts and hard work. After restructuring during the winter of 2008 the council is now actively developing, implementing, and reassessing a number of new initiatives. The initiatives range from straightforward and distinct—implementation of Hourly Rounds, RN/MD Weekly Huddles (resident nursing communication meetings) and forming the Patient-Parent Activities Sub-Council—to larger and complex initiatives which are often best implemented in smaller segments. Case in point, improving the discharge process involves regular collaboration with nursing staff, physicians, and various members of the interdisciplinary health care team as well as members of the Education, Quality of Work Life, and Family Advisory Councils.

Questions asked in Press Ganey survey	Rank 1st Quarter 2009	Rank 4th Quarter 2008
Nursing care	74	44
Nurse attitude towards requests	76	17
Time Dr. spent with child	68	18
Discharge	25	11
Response to concerns and complaints	52	35
Staff worked together to care for me	62	21
Overall	37	26

Upon asking the group what's next on the agenda, one will find great enthusiasm and ambition. Their next aim is the implementation of Family-Centered Care Rounds

Dose Range Checking Using Cerner

Lisa Wilhem, RPH and Dwayne Gallagher, Pharm D

It is estimated that there is 1 medication error per patient per day they are hospitalized with over 1.5 million preventable adverse drug events per year in the US. Studies show that focusing on systems solutions and understanding human factors can reduce medication errors. System solutions include the use of technology such as computerized physician order entry (CPOE) with clinical decision support. Dose range checking (DRC) is a clinical decision support tool that can reduce medication errors by decreasing reliance on memory, an important human factors consideration. DRC works at the point of ordering a medication electronically. DRC alerts prescribers when the dose is out of the suggested range. Thus preventing an over or under dose of the medication. Although DRC has been used by pharmacists for years, the PICU has become the first HMC unit to pilot DRC for prescribers be-

gining in June. Since DRC works by alerting prescribers, it is important the DRC alerts are clinically significant. Alert fatigue is known risk of too many non-credible alerts. Feedback on the DRC alerts should be provided to Connected. Eventually, DRC will be rolled out to other units.

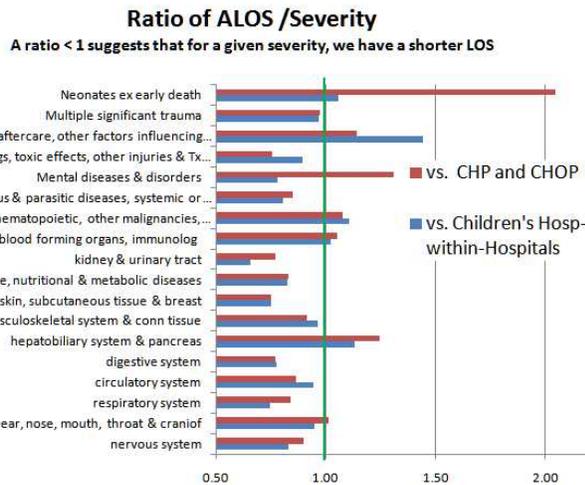
Using the NACHRI Database For Quality Assessment

Steven Lucking, MD,
Vice-Chair for Clinical Affairs

The NACHRI Case Mix Database is a voluntary data-sharing collaborative which includes >80 children's facilities nationwide. Within this system patients are grouped by diagnosis and other features. We compared PSHCH nationally with other Children's Hospitals-within-hospitals and locally with Children's Hospital of Pittsburgh and Philadelphia.

Within the most common categories for the nervous, respiratory, circulatory and digestive systems, PSHCH inpatient population had equal to higher average CMI (case severity) compared to both sets of peers but lower adjusted costs than either comparison group. Even without the adjustment for CMI, our costs were lower than other PA children's hospitals.

Finally, the comparison of PSHCH with peers was done by APR-DRG from a spreadsheet consisting of the 75 APR-DRG's for which PSHCH had 17+ discharges in calendar year 2008. The graph below looks at our average length of stay (ALOS) versus the severity of the patient population. It appears from the data that in most areas our ALOS factored for severity, is shorter than our two peer groups (ratio <1)



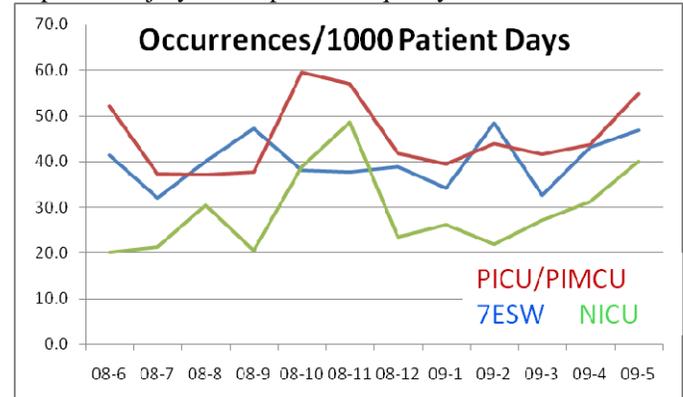
The spreadsheet with some additional quantitative analysis will be sent to all Division Chiefs and interested parties.

Occurrence Reporting

Gloria Gingrich

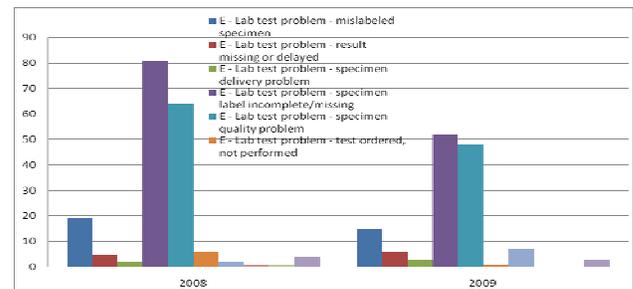
Occurrence reporting is the heart and soul of quality improvement. It allows us to look at ourselves and determine where improvements need to be made. The use of the MIDAS reporting system allows us to examine ourselves in "real time". Over the past months it appears as if occurrence report-

ing is increasing throughout the Children's Hospital. Please continue to report any deviations from practice, including actual events and "near misses" both are important in our efforts to prevent injury and improve the quality of our work



We are also able to look at more specific areas that appear to be problematic. One area that has come to our attention is the question of laboratory errors. Our central laboratory performs over 3 million laboratory tests/year. It is understandable, therefore that there will be some errors associated with this volume of testing.

On the other hand, each error can lead to a variety of responses ranging from the need to redraw the blood sample all the way to the potential administration of other medications/therapies to correct a non-existent problem. How many lab errors happen each month? What kinds of lab errors are more likely and which errors should we focus on in our attempts to decrease the error rates? Occurrence reporting can help here as well. The following graph lists the number of laboratory errors in MIDAS by type for the past 12 months



As can be seen in the graph, the two major areas of error are due to incorrect labeling and poor specimen quality. These are errors that we can work on. Specimen quality errors are due to the way blood is drawn into the specimen containers. There is a specific order of draw so that one specimen doesn't contaminate other containers; lines must be properly flushed to prevent dilution errors

Labeling problems are most often due to the rush of work that occurs on the floor and in the Units; there is so much going on at the same time that occasionally things get missed or mislabeled. Over the past year we have had a total of 320 lab errors within pediatrics. The totals are down from 185 in the last 6 months of 2008 to 135 in the first 6 months of this year, a 37% decrease in number. Continued attention to quality can lower these error rates still further.