DRUG SHORTAGES: IMPACT AND MANAGEMENT
See page 4
ON THE Cover

St. Louis Children’s Hospital is recognized among America’s best children’s hospitals by U.S. News & World Report. For more information about nursing opportunities at a Magnet hospital, visit: StLouisChildrens.org/jobs

Inside THIS ISSUE

From Peggy .................................................. 3
Drug Shortages: Impact and Management .................... 4
Shared Governance leads to research: Developing a tool for patients who need to communicate . . . . 6
Trauma Team discovers web technology to transfer radiology studies ........................................ 8
Getting to know your senior leaders ................................. 9

Who IS that?

Bat-her Up! is the headline for this newspaper clipping of 12-year-old Joan Randolph, now known as Joan Magruder, SLCH president. She was the first girl to play Little League baseball in her state. See page 9 for more information.

SUMMER 2014 VOLUME 11, NO. 3

Editorial board
Karen Balakas, PhD, RN, CNE
Professional Practice & Systems
Carole Branch, DNP, RN, PNP-BC
Transplant Services
Kathy Donovan, MSN, RN, C-NPT
Emergency Services
Angie Eschmann, RN
Operating Room
Michelle Fluchel, BSN, RN
Hematology Oncology Unit
Robin Foster, MSN, RN, CPNP-PC, CDE, CPN
General Medicine
Peggy Gordin, MS, RN, NEA-BC, FAAN
Vice President, Patient Care Services
Beth Hankamer, MSN, BS, RN, CAPA
Clinical Education
Lisa Henry, MSN, RN, PNP-BC
Healthy Kids Express
Rich Manley, RN
Newborn ICU
Robin Myers, MSN, RN, CPNP, WCC
Pediatric General Surgery
Dora O’Neil, BSN, RN, CCRN
Cardiac ICU
Sara Owens, BSN, RN, CPN, CRNI, VA-BC
Vascular Access Service
Kayla Rossi, BSN, RN
Newborn ICU
Lara Smith, MSN, RN, CPNP
Pediatric ICU
Lisa Steurer, MSN, RN, CPNP-PC, CPN
Professional Practice and Systems

Pediatric Perspectives is published by the St. Louis Children’s Hospital Marketing department.
To add or remove a mailing address contact Arvella Robinson at 314.454.4086 or arvelldr@bjc.org.
© 2014, St. Louis Children’s Hospital
From Peggy

Letting go does not mean giving up

I don’t know about you, but 2013-2014 was the longest, coldest winter I can remember. Everyone faced challenges with getting snowed in here at work, getting stuck in the ice and snow on the road, or dealing with frozen pipes at home! All of our hard work in planning for the winter surge helped us to effectively deploy people and resources during peak patient volumes. What has become clear is we cannot reliably predict when we will need that surge plan, and thus need to work on being flexible all year round, as our busy times may not fit as neatly into a pattern as we would wish.

All this is to say that there is a lot we can find frustrating in recent times: health care is changing around us, whether we like it or not; things happen in our lives we did not expect or plan for; and sometimes it feels like we are trudging uphill against a stiff wind. So what keeps us going? For one thing, the alternative is a lot worse! But the real answer can be found in the attitude that we choose.

I often find motivation to adjust my own attitude through the wisdom that is shared through a daily email meditation that I receive. I would like to share two good ones that I have found helpful recently, and particularly relevant to these changing times:

<table>
<thead>
<tr>
<th>There is a big difference between giving up and letting go. Giving up means selling yourself short. It means allowing fear and struggle to limit your opportunities and keep you stuck. Letting go means freeing yourself from something that is no longer serving you.</th>
</tr>
</thead>
<tbody>
<tr>
<td>~ Danielle Koepke</td>
</tr>
<tr>
<td>Let go of certainty. The opposite isn’t uncertainty. It’s openness, curiosity and a willingness to embrace paradox, rather than choose up sides.</td>
</tr>
<tr>
<td>~ Tony Schwartz</td>
</tr>
</tbody>
</table>

I like both of these thoughts because they speak to “letting go” of things we cannot control, and becoming open to the possibilities that may exist in the curve balls life throws us. Even the worst events of life offer the potential for us to grow and become someone new if we are able to make it through. I think of this like being tossed into the rapids of a river. Experts tell you to point your feet downstream, lie back and let the current carry you through to a calmer place where you can paddle out.

In our current turbulent health care climate, this is good advice. Don’t confuse letting go with giving up! Let’s face the uncertainties feet first, with openness and curiosity. I’m confident that we will figure out our future, and with the talent at St. Louis Children’s Hospital, I am sure it will be bright!

Peggy Gordin, MS, RN, NEA-BC, FAAN, is SLCH’s Vice President of Patient Care Services. She can be reached at pgordin@bjc.org.

Even the worst events of life offer the potential for us to grow and become someone new if we are able to make it through.
Although drug shortages have been decreasing over the past couple of years, they remain a serious problem. A 2011 survey by the American Hospital Association (AHA) of 820 hospitals found that almost 100 percent of surveyed hospitals experienced at least one drug shortage in the past six months, with nearly 50 percent experiencing 21 or more shortages in the past six months. In 2012, the American Society of Health-Systems Pharmacists (ASHP) estimated that the annual labor cost to manage drug shortages was $216 million nationwide. Drug shortages for pediatric patients are especially difficult to manage due to the limited drug formulations that these patients can use (i.e. suspensions) and higher requirements of certain drugs (i.e. total parenteral nutrition).

**Reasons for Drug Shortages**

Many contributing factors affect the availability of drug products. The table at right shows some of the common reasons and explanations for drug shortages. These causes can occur alone or concurrently to cause a shortage. Shortages are extremely problematic when the sole source of a drug or its raw material experiences production difficulties.

**Managing drug shortages**

Many federal and private organizations are involved in managing drug shortages. The primary government agency involved is the Food and Drug Administration (FDA), which works in conjunction with many of the other organizations. The FDA was recently granted new authority by Congress to help with drug shortages when the president signed the FDA Safety and Innovation Act in June 2012. Prior to this act, manufacturers

---

### Reasons for Drug Shortages

<table>
<thead>
<tr>
<th>Reason for Shortage</th>
<th>Explanation or Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw and bulk material unavailability</td>
<td>• 80 percent of pharmaceutical raw materials are from outside the U.S. – conflicts, politics, climate and environmental changes can affect resources</td>
</tr>
<tr>
<td>Manufacturing difficulties and regulatory issues</td>
<td>• Production may be halted in response to FDA enforcement for noncompliance with current good manufacturing practices (cGMPs)</td>
</tr>
<tr>
<td></td>
<td>• Example: facilities with outdated manufacturing equipment, loss of experienced personnel, need for FDA inspection</td>
</tr>
<tr>
<td></td>
<td>• Resolution of these issues is often a lengthy process</td>
</tr>
<tr>
<td>Voluntary recalls</td>
<td>• Generally related to manufacturing problems, lack of assurance of product safety or technical issues (i.e. labeling mistakes)</td>
</tr>
<tr>
<td>Change in product formulation or manufacturer</td>
<td>• Example: 2006 transition from albuterol metered dose inhalers (MDIs) containing chlorofluorocarbons (CFCs) to hydrofluoroalkanes</td>
</tr>
<tr>
<td>Manufacturers’ production decisions and economics</td>
<td>• Manufacturers may shift production efforts to reallocate resources to a different product based on availability of generic products, market size, patent expiration, drug-approval status, regulatory compliance requirements and anticipated demand of a product</td>
</tr>
<tr>
<td>Restricted drug product distribution and allocation</td>
<td>• Manufacturers may limit availability of specific drug products due to marketing approval or post marketing surveillance requirements</td>
</tr>
<tr>
<td></td>
<td>• Manufacturers may restrict amounts based on limited supply availability; only distributing allocations to certain health systems</td>
</tr>
<tr>
<td>Inventory practices</td>
<td>• Manufacturers carry reduced amounts of inventory, supplying “just in time” to health systems in order to increase cash flow</td>
</tr>
<tr>
<td></td>
<td>• Unexpected shortages can result in rapid depletion of available products</td>
</tr>
<tr>
<td>Unexpected increases in demand and shifts in clinical practice</td>
<td>• Demand for a product may exceed production capacity in response to newly approved indications, new therapeutic guidelines, disease outbreaks or other unpredictable factors that occur</td>
</tr>
<tr>
<td>Natural disasters</td>
<td>• Damage to manufacturing facilities can result in long-term shortages</td>
</tr>
</tbody>
</table>
Drug shortages for pediatric patients are especially difficult to manage due to the limited drug formulations that these patients can use and higher requirements of certain drugs.

Shortages at SLCH

Drug shortages are managed every day by the health care teams on individual units and through the pharmacy department. At a hospital level, drug shortages are discussed monthly at Pharmacy and Therapeutics Meetings. The pharmacy buyer works diligently to maintain adequate inventory of essential drugs, although this is not an easy task.

Additional methods used to manage shortages at SLCH include:
- Identifying therapeutic alternative agents
- Implementing temporary treatment guidelines or procedures
- Changing inventory
- Restricting drug access
- Reallocating drug access
- Promoting awareness of shortages
- Working with drug companies for allocations of certain drugs

All of these actions require collaboration among pharmacists, physicians, nurses, hospital leadership and many other health care professionals.

The goal is to prevent shortages from adversely affecting patient care. Questions about how SLCH manages drug shortages should be directed to the clinical pharmacy or pharmacy leadership teams. An updated document of SLCH-specific drug shortages can be found on the SLCH Pharmacy Department’s internal website, accessible only on BJC computers: http://slchnet/pharmacy/default.aspx

For additional information, contact Caren Liviskie at CLiviskie@bjc.org

Agencies that manage drug shortages:
U.S. Food and Drug Administration: www.fda.gov
American Hospital Association: www.aha.org
American Society of Health-Systems Pharmacists: www.ashp.org/shortages
Institute for Safe Medication Practices: www.ismp.org
Department of Health and Human Services: www.hhs.gov

National drug shortages
Number of new shortages from January 2001 to September 30, 2013

SOURCE: University of Utah Drug Information Service
NOTE: Each column represents the number of new shortages identified
During a Clinical Practice Council meeting in 2012, pediatric ICU nurses and Therapy Services representatives identified both an opportunity and a need for improving communication between patient and health care providers in the Pediatric ICU. At the time, there were several intubated patients who were not sedated but could not communicate their needs to staff. Nursing had requested support from speech therapy on an individual basis, but it was thought perhaps having a readily accessible tool for these patients would be even more helpful. Speech therapists from Augmentative Communication believed successful interventions could be developed for use with these patients. Following this discussion, a task force was formed to further investigate the scope of the problem. Representatives from nursing, social work, child life, occupational therapy, information systems and speech therapy worked together on the project. The newly formed task force was aware of The Joint Commission’s sentinel event data identifying poor communication as a top root cause of adverse effects in the medical setting.
The project began by determining the extent of a need for an intervention. The task force developed a survey to assess:

- The current communication methods
- Staff belief in the need for a reliable communication tool
- Importance of communication with patient and family to deliver care
- Staff comfort level with using existing tools

Fifty-seven pediatric ICU nurses responded to the survey and indicated that they had difficulty communicating with these patients and used a variety of methods when delivering care. The task force reviewed Pediatric ICU admission data and identified between two and 12 patients per day that met the criteria of serious communication impairment during August 2012. A proposal was subsequently approved and included funding for the first 50 communication boards. Work then began in earnest to create the boards with input from all task force members.

Board categories include core words used in a medical setting, a dry erase section for hand written language, an alphabet board, and a pain overlay. Multiple communication tools were provided on the board because of the rapidly changing capabilities of patients in the critical care setting.

After the communication boards were developed and printed, the task force began to study the effectiveness of the boards. Working with nurse researchers from St. Louis Children’s Hospital (SLCH) and Saint Louis University, a quasi-experimental research study was designed. The task force believed that results from the study would have the potential to improve patient-provider communication in the critical care setting and may also be used in less acute locations in the hospital.

All Pediatric ICU nurses were trained by SLCH Augmentative Communication therapists during regularly scheduled educational days on how to effectively use the communication board. Team members created a video in the Simulation Center to demonstrate the use of the board and reviewed a tip sheet they created to provide written direction while using the tool. The team designed a survey to collect at the end of each shift to help determine how often the board was used, why it was used, and whether or not it was helpful.

The board was found to be both useful and effective as a method of communication, with patients initiating board use almost as often as the nurses. It was found the board was frequently used to communicate important needs such as the need for pain medication as well as basic comfort and care needs. Based on the findings, the board’s vocabulary, symbols and layout were re-designed. Nursing documentation in KIDDOS was also revised to exclude non-applicable populations. Communication boards and education on their use are now being provided during the monthly orientation for new nurses. Education and implementation is being planned to include inpatient floors, the Ambulatory Procedure Center, Same Day Surgery, and the Emergency Department.

For additional information, contact Jane Quarles at jkq8713@bjc.org
St. Louis Children’s Hospital (SLCH) continues to look for opportunities to provide faster and more efficient support to transferring facilities. Regardless of the day or the hour, the highly skilled and trained Trauma Team at SLCH is available and ready to care for the sickest and most severely injured patients from around the country. In an effort to expedite care for these patients, SLCH has partnered with ScImage Inc. to provide an easy method to transfer radiology images of trauma patients. This secure, web-based system allows for Digital Imaging and Communications in Medicine (DICOM) images to be sent online from the hospital to the pediatric trauma team at SLCH before and during transport. Once the patient arrives at the hospital’s Level 1 Pediatric Trauma Center, the team will be ready in a specially-equipped trauma room or surgical suite with everything needed to treat the patient.

The Trauma Team’s goal is to reduce unnecessary exposure to radiation related to repeat scanning because of the unavailability of images that are sent with the patient. Often, images from referring facilities cannot be accessed or viewed at the receiving facility, making it difficult to treat a patient based on the images.

The new imaging system provides the team with the capability to view images that are taken at outside facilities, regardless of the imaging platform that is being used at the transferring facility or receiving facility. Also, physicians can access the images from anywhere with an internet connection, further extending the network and capabilities. This technological partnership with referring health care providers ultimately supports better and faster care for patients.

For additional information contact Steven Woods at Steven.Woods@bjc.org

Dr. Kim Quayle, Emergency Services, and Dr. Martin Keller, Trauma Services director, review patient images.

SLCH is the only pediatric hospital in Missouri and Illinois that is nationally recognized by the American College of Surgeons as a Level 1 Pediatric Trauma Center (highest classification of trauma care). The dedicated team at SLCH continuously looks for ways to improve patient care and reduce the safety risk associated with treatment and imaging.
Benefits of acute image transfer network

- Pediatric Trauma Team and resources are mobilized and ready for the patient upon arrival
- Secure and efficient image transfer from any DICOM source
- Quick and easy to use: point-click-send
- Reduces need for duplicate scans
- Eliminates risk of lost data during transport

Getting to know your hospital leaders

By Rich Manley, RN, Newborn ICU

I asked St. Louis Children’s Hospital (SLCH) senior leaders some questions to help us get to know them just a little bit better. Here are some insights into who they are outside the titles and degrees:

Joan Magruder, President

Why did you decide to go into health care?

I wanted to make a difference, improve the lives and opportunities for the most vulnerable. I wanted to give back for my blessings. I saw firsthand the impact pediatric health care providers had on the community as my dad (pediatrician) and mom (pediatric RN) were incredibly inspirational.

What do you think makes SLCH such a special place?

The three-legged mission to provide superior care, train the next generation of pediatric physicians and accelerate discovery/breakthroughs in diagnosis, treatment and prevention.

And the people and their relentless commitment to top decile patient and family satisfaction and quality of care. Also, the courageous, resilient, hopeful character of the kids we serve.

What is your favorite childhood memory?

Being interviewed for the front page of the local newspaper as the first/only girl in Little League baseball (my dad appealed to the state of Connecticut).

Share something with us that no one would suspect about you.

- Insisted on wearing my Yankee jacket over my first communion dress (grew up a tomboy with six older brothers).
- Basketball fanatic – take a week of ETO each spring to watch NCAAs/March Madness (and played throughout college).
- Spent one high school summer painting houses in Trinidad (West Indies).

Rick Majzun, Vice President, St. Louis Children’s Hospital

Vice President, Woman’s & Infants, Barnes-Jewish and SLCH

Why did you decide to go into health care?

I volunteered at a nursing home during college and enjoyed helping people get better care. After starting graduate school at Washington University, I got a job as an evening administrator at Barnes-Jewish Hospital and found that helping clinicians deliver the best medicine was extremely rewarding for me.
What do you think makes SLCH such a special place?
The people, the passion, the dedication, the excellence of our people. It is energizing to be part of what we do.

What is your favorite childhood memory?
A spring day, on vacation in the mountains, my three siblings and I surprising our Mom with bouquets of flowers, my Dad filming the whole thing.

Share something with us that no one would suspect about you.
With five children, a busy job, a twice weekly soccer habit, and an occasional night out with my wonderful wife, my free time isn’t as plentiful as I wish it was. But when I have a few free minutes, mainly at night after everyone’s in bed, I enjoy writing screenplays with my LA-based writing partner.

Peggy Gordin, MS, RN, NEA-BC, FAAN, Vice President of Patient Care Services

Why did you decide to go into health care?
I always liked science and psychology. As a child, I read the entire Cherry Ames book series but never really thought about becoming a nurse until I was almost finished with my BS in psychology. I was looking at all the jobs in the newspaper at the time and saw how many nursing jobs there were, plus they paid relatively well. I decided to go to nursing school rather than graduate school and so took chemistry, anatomy and physiology in my senior year before graduating from one degree and then going on for two more years to get my BSN.

What do you think makes SLCH such a special place?
Our people, of course!! We have some of the brightest AND most compassionate staff of any place I have ever worked. The commitment to excellence at every level is so obvious when you walk through the building. Everyone here is working to “do what is right for kids!”

What is your favorite childhood memory?
Probably our summer vacations to Myrtle Beach. We would leave at 4 a.m. and drive straight there while my brother and I slept for a few more hours in the back seat. That was in the days before seat belts. My parents put an old crib mattress on the back seat and we just slept on that! Today they would probably be ticketed or hotline for neglect! But those vacations were the best. I was there in 1969 when astronauts walked on the moon for the first time.

Share something with us that no one would suspect about you?
I can’t be too daring because you are going to print this! Let’s just say that I could never run for office, because I was a “wild thing” in my teens. The only hint I can give is that my taste in music is still reflective of my wilder side: I love rock bands and edgy music like Nickelback, Metallica, AC/DC, Muse and Pink.

F. Sessions Cole, MD, Chief Medical Officer, Director of Newborn Medicine

Why did you decide to go into health care?
The opportunity to make a difference in peoples’ lives.

What do you think makes SLCH such a special place?
The outstanding culture of teamwork and commitment to the child and family.

What is your favorite childhood memory?
Fishing with my father and our family’s summer home in Jamestown, Rhode Island.

Share something with us that no one would suspect about you?
I love to fish and have fished at some great places around the world.

Janice Bailey, Vice President, Foundation

Why did you decide to go into health care?
I “fell” into health care as well as development work. My degree is in PR and my plans were to run an ad agency someday. I worked at one for five months after college and decided that was NOT what I wanted to do. I took a job at a small non-profit in PR and development and found out what development was when I got there! My boss from there came to SLCH in 1990, and two years later he asked if I was interested in working with him again. I said, “Yahoo!” and the rest is history.

“I also would love to be a stand-up comic or host my own talk show!”
– Janice Bailey
What do you think makes SLCH such a special place?
SLCH is a special place for two reasons: the mission of doing what’s right for kids is the most motivating mission I have come across; and the people who work here are the most passionate, caring folks I know.

What is your favorite childhood memory?
My grandfather was a big German man, and he had his favorite chair. No one was allowed to sit in his chair! My favorite memory of childhood was being able to sit in that chair on my grandpa’s lap during family gatherings. He made me feel like I was the most important person in the family! I was the first granddaughter in the family, and I think he liked me best.

Share something with us that no one would suspect about you?
I love being alone! Most folks think of me as people person, which I am, but I totally enjoy being at home by myself and doing laundry and baking. (Totally weird!)

I also would love to be a stand-up comic or host my own talk show! (go figure).

Sandra Young, SPHR, Vice President, Human Resources/Organizational Effectiveness/Marketing and Communications, SLCH and Missouri Baptist Medical Center

Why did you decide to go into health care?
My mother passed away after a long battle with mental illness. After seeing firsthand what good and bad care-giving looks like, I wanted to play a meaningful role in improving health care for all.

What do you think makes SLCH such a special place?
The people who work here. I have the privilege of reading the high five nominations, and I am amazed by the personal commitment and heroics demonstrated by so many of our employees every day. The commitment to delivering a superior patient experience is demonstrated by everyone, from environmental services, to direct care providers and everyone in between.

What is your favorite childhood memory?
Going to my papa’s lake house in Little Rock, Ark., with my five brothers and sisters. We spent time fishing, riding horses, playing cards and much more.

Share something with us that no one would suspect about you? (be as daring as you want)
I love sky diving. My most recent adventure was in Las Vegas with my niece and nephew.

Gary La Blance, PhD, Vice President, Quality, Service and Information Management

Why did you decide to go into health care?
The opportunity to make a difference in the lives of our patients and their families. There is little more rewarding than walking through the hospital and seeing that in some small way. I had an opportunity to serve the children and the institution.

What do you think makes SLCH such a special place?
The unwavering focus on our mission. The entire team of physicians and hospital staff work collaboratively to ensure a superior patient experience for every patient, every family, every day.

What is your favorite childhood memory?
Spending summers on a farm with my grandparents. Lots of hard work, but
I thoroughly enjoyed being outside with animals and crops.

Share something with us that no one would suspect about you? (be as daring as you want)

I love to cook. I spend much of the weekend in the kitchen. Interests range from entrees to desserts. Fortunately my children share this passion. It provides a great bonding opportunity.

Michele McKee, Vice President, Finance and Strategic Planning

Why did you decide to go into health care?

It was not really a conscious decision…more by fate. I had a family member that worked in a hospital and recommended that I apply for an accounting position.

I love being in health care because it is such a dynamic field. I enjoy the challenge of adapting to the ever-changing environment. I’m able to do what I love

What do you think makes SLCH such a special place?

SLCH is a special place because of the staff and physicians who are passionate about doing what’s right for kids.

What is your favorite childhood memory?

One Sunday morning, my mom woke me up and asked if I wanted to go to the Humane Society shelter and pick up a puppy she had seen in the paper. I thought I was dreaming!! I had been begging my parents for a dog but never thought they would agree. We went to church and then drove to the shelter just as it opened. There were two schnoodles (schnauzer and poodle mix) – a black and a white. I chose the black dog and named her Zipper. Zippy and I were inseparable…best dog and best day ever.

Katrina Farmer, MBA, SPHR, Vice President, Diversity, Inclusion and Equity, Barnes Jewish Hospital and SLCH

Why did you decide to go into health care?

My youngest daughter, Alea, has a severe peanut allergy and she also has asthma. We found out when she was 3 years old. This news was difficult for us because my brother-in-law’s stepson died from an asthma attack at 9 years old. The team at Nationwide Children’s Hospital in Columbus, Ohio, taught me and my husband everything we needed to know so we could proactively manage her asthma. As a result, Alea has never been rushed to the emergency room nor has she ever spent a night in the hospital. I decided to go into health care because I wanted to work with health care providers to eliminate health disparities such as asthma and infant mortality.

What do you think makes SLCH such a special place?

SLCH is a special place because of the staff and physicians who are passionate about doing what’s right for kids.

What is your favorite childhood memory?

My parents always made Christmas and birthdays special. I’m the oldest of three. My brother is two years younger and there is a 13-year difference between me and my sister. Of course, we were anxious to see what Santa would bring us but our parents made sure we knew the reason for the season. Birthdays were a time when my parents went above and beyond to celebrate and acknowledge me and my siblings. My mom even drove through snow storms to deliver presents and birthday cakes to us after we went to college. My husband and I have continued these traditions with our daughters.

Share something with us that no one would suspect about you

At one point, I thought I wanted to be an engineer. I went to The Ohio State University on a scholarship to study mechanical engineering. I worked for Dow Chemical in Granville, Ohio, during my senior year in high school. After I went to college, I was selected to participate in an internship program during summer breaks in the Research and Development Department in Midland, Mich. My projects included marketing alkalis for waste stream neutralization, determining the percentage of oxygen passing through red meat overwrap films and testing the tensile strength of trash bags.