



## SPRING 2015 – PICU RECEIVES CNO AWARD FOR TEAM EXCELLENCE

Lisa Rowen, DNSc, RN, FAAN, Senior Vice President of Patient Care Services and Chief Nursing Officer

**Talk about doing it all! The Pediatric Intensive Care Unit (PICU) staff are skilled to care for critically ill newborns to young adults: their competencies include every service and specialty we offer in pediatrics; they are the code and rapid response team for all pediatric patients at the Medical Center; they provide post anesthesia care for pediatric patients requiring extended care, as well as at times on weekends and nights when the Peds PACU is closed.**

They do all of this for vulnerable patients while embracing, educating, and including anxious and protective parents in a truly patient and family-centered approach. As **Melissa Bierly**, RN, said, “I love it here. It’s hard; you never know what you’ll learn.”

**Adrian Holloway**, MD, PICU attending, said, “Our nurses are very adaptable. The ICU has grown a great deal this past year and constantly changes. We’ve increased the complexity of cardiac surgery and ECMO patients and are now planning for BMT and neurosurgery patients. The nurses have embraced rapid change with great facility. They’ve met every challenge.”

On my rounds in the PICU, I noted repeatedly the wonderful and collaborative relationship between the staff and the providers. **Lauren Manrai**, RN, CCRN, is currently in the RN-to-MS program at the University of Maryland School of Nursing (UMSON). She said she worked three years at a children’s hospital in Chicago. I asked her how we compare, and Lauren said we compare very well. She explained that although the team cares for critically ill children, which is stressful, “... we have a wonderful collaborative relationship with the different specialties. Working with so many services can challenge communication, but we do really well and have collegial relationships.”

Lauren looks forward to the implementation of Portfolio, likes that senior PICU nurses have become trained to insert PICC lines, and enjoys that nurses present in rounds. Lauren said that part of the reason the team is so terrific is that “Mary Jo, our nurse manager, is great at interviewing.” The nursing team has been carefully screened and selected.

**Mary Jo Simke**, MS, BSN, RN, said the team is always learning and growing professionally. Like Lauren, Mary Jo is an advocate of nurses presenting their patients in rounds. Believing that it empowers nurses to participate in rounds, Mary Jo said it “ensures the team is on the same page; the nurse re-caps the plan for the day so everyone has the same understanding.”

Melissa said, “The best thing that has happened over the past year is nurse-led rounds. Things change and happen so fast here it helps to have people on the same page with the same perspective for the plan of care. They don’t teach you in nursing school how to do

rounds. We use a short and to-the-point tool for this purpose.” (Figure 1) The nurses explained that the multidisciplinary group worked on the tool and have tweaked it every few months based on team input.

**Kasey Brown**, BSN, RN, has worked in the PICU since her graduation from Morgan State University two years ago. Agreeing that nursing’s lead role in rounds has been a great step forward for the PICU, she said, “The nurse is the first presenter for the plan of care for the day. The night shift nurse puts the plan together and the day shift nurse adds to it and presents it to the rounding team. The residents may not have known all of what happened to the patient over the past hours, but the nurses are aware of everything and can provide a great summary so the plan of care can offer continuity.”

**Christine Ho**, CRT, explained she rotates between pediatrics and adults to provide respiratory therapy. She has been in the PICU for a little under a year and really enjoys the environment. “I like the teamwork, good communication with hand-offs, and the nurses are great to work with.”

Patient Label	Hospital Day #	Date: POD #:
Reason for Admission/PMH:		
Events over the past 24 hours:		
<b>Vital Signs</b> Previous Weight: _____ Current Weight: _____ +/– _____ kg BP: _____ Max: _____ HR: _____ RR: _____ SpO2/FiO2: _____ CVP: _____ NIRS (C/R): _____ <b>Total Intake:</b> _____ (Enteral) _____ IV _____ <b>Total Output:</b> _____ +/– _____ UOP: _____ ml/kg/hr Stool _____ Drain/CT _____ Output _____ Drain/CT _____ +/– _____ Drain/CT _____ +/– _____		
<b>Neuro</b> Drips: _____ # PRN in 24 hours: _____ Sedation Adequate? _____ SBS _____ WAT/NAS _____ Pain Score: _____ CAP-D _____		
<b>Labs/Lines/Tubes</b> <input type="checkbox"/> Urine Catheter (day) <input type="checkbox"/> PIV <input type="checkbox"/> Central (day) <input type="checkbox"/> Adequate Y/N <input type="checkbox"/> ABG q _____ <input type="checkbox"/> PICC (day) <input type="checkbox"/> Arterial (day) Issues with access: <input type="checkbox"/> Ical/Lactate q _____ <input type="checkbox"/> BMP q _____ MG/Ph q _____ CBC q _____ CMP q _____		
<b>Skin</b> At risk for injury? <input type="checkbox"/> Yes <input type="checkbox"/> No Restraints: <input type="checkbox"/> Yes (ordered) <input type="checkbox"/> No DVT Prophylaxis: _____		
<b>Services Involved</b> <input type="checkbox"/> PT <input type="checkbox"/> OT <input type="checkbox"/> Speech <input type="checkbox"/> Child Life <input type="checkbox"/> Social Work <input type="checkbox"/> Pastoral Care <input type="checkbox"/> Palliative Care		
<b>Family/Social Concerns:</b>  Streamline (labs and orders) Access (adequate, d/c any lines, PICC candidate) FLACC, WAT, SBS (adequate pain, withdraw and sedation mgmt) Eliminating tubes (urine catheter, CT, NG, etc) Transitioning IV to PO Verbal Re-Cap of Plan:  <small>NOT PART OF THE MEDICAL RECORD! ONLY KEEP FOR 24 Hours! ***</small>		

Figure 1

continued on page 2.

Kasey agrees and said “I’m proud of our teamwork and how we help each other. In this ICU environment, we need each other for better patient care and we all help each other out, regardless of role. The nurses, techs, secretaries — it’s a great team.” In fact, the PICU nurses nominated the PICU nursing assistants and unit secretaries for the Nursing Support Staff Award as part of UMMC’s Nursing Awards Ceremony this year.

Melissa, a graduate of Frostburg State University, said she enjoyed the project she and **Abigail Holden**, BSN, RN, completed for their Nurse Residency Evidence-Based Practice requirement. They



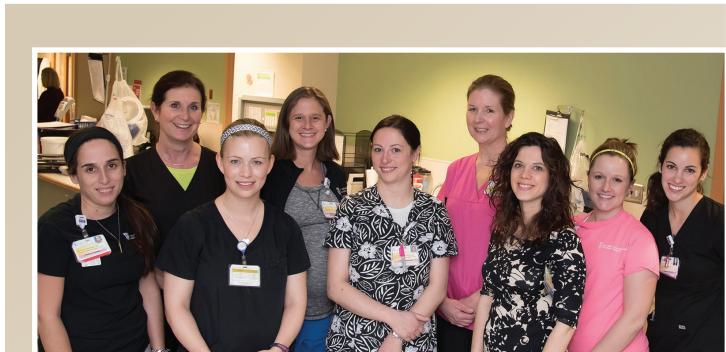
Nurse Residency Evidence-based Practice poster

studied family presence in pediatric resuscitations. Their literature review yielded that 100% of parents who were present during the resuscitation of their child would opt to be present in the future.

“Most interesting,” said Melissa, “is where the parents want to be located.” Many PICUs place parents in the hallway outside of the room. Parents want to be in the room at the head of the bed, whispering loving and encouraging words to and physically touching their child.” Melinda explains that the EBP project reinforced her thoughts that for many children’s entire lives, the parent has served as a protector. Separating a child and parent during the resuscitation, while previously thought to be more humane for the parent, is actually in contrast to how they’ve lived their lives with their children. Melinda and Abigail are planning to share the information they gleaned from the literature with their multidisciplinary PICU colleagues. Together they will determine how to best apply this knowledge to their approach to resuscitation management.

The PICU nursing staff members engage their patients’ parents, whenever possible, in a patient/family relationship-based care model. I spoke with the mother of a four-month old who said “I’m so thrilled with the care my baby receives here. They involve me every step of the way and treat my daughter and me with unbelievable compassion and care. I have never seen such knowledgeable experts — every single one of them — who are also able to relate to us like members of their families.”

The PICU nursing staff are also a compassionate group of individuals. They ensure patient birthdays and other life events are celebrated. **Taka Hayakawa**, RN, CCRN, a senior clinical nurse I in the PICU who is also a professional photographer, worked with nursing leadership and the legal department to verify if he could comply with a parent’s request that her child have professional pictures taken while a patient in the PICU, as she was not sure her child would ever be well enough to go home. The photography session will always hold a special place in the heart of this family. The PICU staff were also uplifted by the experience to create such meaningful memories for the family.



PICU staff, left to right:

**Natalie Santana**, BSN, RN

Clinical Nurse II

**Katharine Katsion**, BSN, RN

Clinical Nurse II

**Mary Jo Simke**, MS, BSN, RN

Nurse Manager

**Jill Thomas**, MSN, CPNP-AC

Clinical Nurse I

**Lori Dittmar**, BSN, RN

Clinical Nurse I

**Christina Fellner**, MS, RN, CCRN

Senior Clinical Nurse I

**Jordin Mazer**, BSN, RN

Clinical Nurse II

**Jessica Dolim**, BSN, RN

Clinical Nurse II



PICU staff, left to right:

**Lauren Manrai**, RN, CCRN

**Megan McQuillan**, BSN, RN, CPN

Clinical Nurse II

Clinical Nurse II

**Mary Jo Simke**, MS, BSN, RN

Nurse Manager

**Kristin Lewis**, BSN, RN

Clinical Nurse I

**April McCoy**

Unit Secretary

**Sasha Harris**, BSN, RN

Clinical Nurse II

**Samla Doura**, BSN, RN

Clinical Nurse II

**Jessica Dolim**, BSN, RN, who attended Penn State University, said, “I love it here. I like the patient population, the wide range of ages and diagnosis, and how I am always learning.” Jessica used to work on Gudelsky 8, an adult transplant unit, and was able to translate her skills in the pediatric setting. She serves as a member of the Pediatric Pharmacy and Therapeutics Committee and described how senior clinical nurse II **Diana Novak**, MS, RN, CCRN; **Jill Thomas**, MS, CRNP; and **Susan Mendley**, MD; looked across the country at protocols for CRRT that create less of a reaction during initiation of CRRT in young children. Together, this team developed a protocol specific to UMMC. Mary Jo added staff from Respiratory Care Services, Blood Bank, Lab, and the Pediatric Pharmacy, all of whom were integral in developing and sustaining this protocol. Jessica said, “We are always being educated and encouraged to stay abreast of current literature. The senior nurses are so helpful and present.”

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## PICU HIGHLIGHTS 2014-2015

### SAFETY AND QUALITY

- > Serve on Pediatric Arrest team, Pediatric Rapid Response team, and Pediatric ECMO team
- > 50 weeks without a CLABSI
- > No CAUTIs from summer 2014 to present
- > Began barcode of breast milk in 2014 (Women's and Children's initiative)
- > Weekly multidisciplinary QI meeting
  - > Nurse-led root cause analysis of events related to nursing practice: breast milk management, line management, weight documentation
- > PICU nurse presented AU study to Maryland Nurses Association
- > Participated in Departmental Safety Rounds
- > Participate in multidisciplinary research and evidence-based practice
  - > Half-Pint Study- *A multicenter study evaluating critically ill intubated children with high blood sugar who are randomized to one of two groups of target glucose levels; outcomes studied include: survival, organ failure, length of ICU stay, and brain function.*
  - > Created a new CRRT protocol for children using established protocols in the literature to meet the needs of the device and circuit used for infants at UMMC. The Z Buf, Zero Balance Ultrafiltration Procedure is used for washing blood primed CRRT Circuits; the aim is to produce an optimal electrolyte and acid-base balance when using a blood prime

### SERVICE

- > Since opening new PICU in October 2013:
  - > Enhanced Children's Heart Program
    - Increase in number and complexity of cardiac surgical patients with UMMC mortality below the national average in the Society for Thoracic Surgeons database (2.9/3.6 respectively)
    - Collaborated with Adult Cardiology and CSICU in management of two adolescent heart failure patients who subsequently received ventricular assist devices
  - > ECMO
    - Began eCPR in 2014
    - 1 of 3 hospital units which contributed to UMMC's attainment of the ELSO Center of Excellence award
  - > Acknowledged in several *Great Stories* in 2014 and 2015

### PEOPLE

- > Bedside nurse presentation of patients in daily rounds
- > Provided a photography option for family desiring to capture memories with their child

### STEWARDSHIP

- > Coordinated PICU Running Team for 2014 Heart Walk
- > Plans for a PICU T-shirt Fundraiser and Half Marathon Running Team for spring 2015

### INNOVATION

- > Implemented a daily Quiet Hour on unit for children and families



April McCoy, unit secretary



Christine Ho, CRT



Melanie Carpenter, BSN, RN, clinical nurse I, and Mary Jo Simke, MS, BSN, RN, nurse manager

**Jamie Tumulty**, MS, CRNP, has worked in the PICU for 20 years. She said, "You feel good about your practice here. We always stay on top of or ahead of the curve. And the attendings are committed to process improvement."

For example, we have a Half-Pint Study looking at the effects of tight glucose control on the outcomes of critically ill children and a macrophage study on sputum. We're also examining the cardiovascular effects of Precedex. Mary Jo added that Jamie is completing a three-year study of alarm recognition by nurses, funded by the American Association of Critical Care Nurses. Jamie presented the results at the National Teaching Institute in May.

Jamie further explained that the nurse practitioners, residents, and attendings have a number of studies and grants. PICU lead NP **Shari Simone**, DNP, CPNP-AC, APRN-BC, FCCM, soon to be inducted as a fellow in the American Academy of Nurse Practitioners (AANP), has been working for the past year with the multidisciplinary team to screen, prevent, and treat delirium in PICU patients; the PICU nurses have had 100% compliance with screening patients for delirium.

Brain Rounds, part of the delirium project, is an interdisciplinary conference that includes residents and attendings from the areas of pediatric critical care, child psychiatry, and neurology, along with pediatric pharmacists and PICU nurses. The group reviews all patients experiencing delirium that receive pharmacotherapy and patients with other mental health issues. A grant application is in process to study how well team members — fellows, residents, attendings, nurse practitioners, and collaborative educators (FRANCE) — work together. Jamie is interested in the effect of parental mental illness on children's health. She explained, "Do the parents forget to fill the medication orders? Do they hear and understand us when we give instructions?"

A Pediatric Early Warning Scores tool (PEWS) used at UMMC in the past two years to identify at-risk children who may need closer monitoring or critical care has led to the development of a PEWS protocol for all UMMS hospitals that care for children, with Diana Novak and **Jason Custer**, MD, PICU medical director, leading this work.

**Faith Hicks**, MS, RDN, CSP, senior clinical dietitian, has worked in the PICU for over 25 years. She explained, "The PICU is challenging, interesting and a most collaborative environment. Right now we are studying best feeding strategies for single-ventricle patients."

All of the staff commented on the excellent physician leadership of **Adnan Bhutta**, MBBS, FAAP. They spoke of Dr. Bhutta as someone who is collaborative, an expert, good for morale, and who recruits great pediatric specialists. For example, the pediatric bone marrow transplant program is scheduled to begin in the near future. In

addition, the pediatric ECMO program and Children's Heart Program have expanded in both volume and complexity of patients.

**Mary Taylor**, MS, RN, director of nursing for Women's and Children's Services, said, "The staff have expanded their knowledge regarding the management of children with severe heart anomalies. They provide excellent care. Our cardiac surgery outcomes are better than the national average."

**Tina Fellner**, MS, RN, CCRN, senior clinical nurse I, has worked on the unit for the past five years. She is a graduate of the Clinical Nurse Leader program at UMSN. Tina coordinates ECMO classes twice a year for the PICU, the OR, and interested NICU nurses.

Tina discussed the competencies required for ECMO and the team's focus on quality outcomes and performance improvement. She said, "I'm on the Pediatric ECMO Council, which is a multidisciplinary team that looks at different ways to improve the program for ECMO activation. Last week, we did a mock cannulation of a patient. All roles were filled and we had the Pharmacy send medications and the Blood Bank was told to intentionally send expired blood so we could practice this scenario. The pediatric OR team participated and we examined surgeon response time."

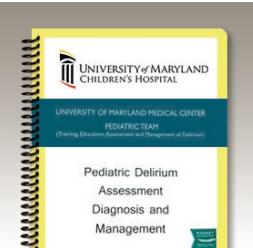
Tina said the PICU staff took in stride the addition of ECMO responsibilities. She said, "The PICU staff are really adaptive. We need to learn quickly so we can provide the best care to our patients. That's why we provide a lot of ECMO reference materials, conduct mock reviews, and offer a lot of lectures about ECMO. We are learning all of the time."

The spirit of learning is evident in the PICU. Tina Fellner, Taka Hayakawa, and **Megan Hansen**, BSN, RN, studied, practiced, and demonstrated competency for PICC line insertion and are now competent to perform this skill on pediatric patients. A few more PICU nurses are also in the process of becoming trained. The staff love the many opportunities afforded them to learn new knowledge and skills.

Faith noted that the nurses' competency for patients who breastfeed has greatly improved on the PICU. She said Tina Fellner has been a champion for this work. Tina is on the Neonatal Intensive Care Unit's Breastfeeding Council, along with members from the Mother/Baby Unit and the Center for Advanced Fetal Care. The UMMC world of caregivers is connected and collaborative for the children and moms among our patients.

The PICU staff show passionate commitment to their patients. **Kristin Lewis**, BSN RN, said working in the PICU was her first choice after having loved working there as a clinical scholar when she attended UMSN. **Tammi Kim**, BSN, RN, CCRN, commutes 90 minutes each way across the Bay Bridge. Originally a paramedic, Tammi

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PICU Multidisciplinary Quality Initiative



*Samla Doura, BSN, RN, clinical nurse II*



*Megan McQuillan, BSN, RN, CPN, clinical nurse II*



*Julia Furey, BSN, RN, clinical nurse I*

worked for Maryland ExpressCare for two years and has worked in the PICU for 13 years. She said, "I love the people I work with, have made a lot of good friends and forged strong friendships, and I'm drawn to the high-tech environment of the PICU."

**Diana Woodall**, BSN, RN, said she likes how the team joins together to focus on the patient. She explained the PICU recently went 50 weeks (yes, fifty!) without a CLABSI. "I feel like we've changed practice so much with central lines. We've focused on the number of times we access the line. And I'm not talking about just the nurses. The attendings are also sensitive to how frequently the lines are accessed." Mary Jo added that the PICU requires two nurses to change all of the central line dressings so that there is remarkably standardized and consistent practice.

**Ashley Deavers**, BSN, RN, has worked on the unit for the past six months. Ashley, a Stevenson University graduate, said her two years of experience at Mt. Washington Pediatric Hospital gave her a good foundation to join the PICU team.

**Tracy Kratz**, BSN, RN, senior clinical nurse II, has worked in the Pediatric ED for about six years and transferred to the PICU this past year. A graduate of the University of Pennsylvania, Tracy is now in the Master's Program at Drexel University and is two classes away from a master's degree in the Clinical Nurse Leader program. Tracy served

as one of the nurse ambassadors for UMMC's marketing program. She said "I like the interaction with the families. I feel appreciated by the family members and feel like I can make positive changes in a child's life. I also like the challenge of critical care."

Tracy pointed out that she likes the many studies that are conducted in the PICU. In particular, she likes the Half-Pint Study. This is a nationwide, multi-site study that examines the outcomes from tight glycemic control in critically ill children. The staff draw blood every hour and instead of wasting blood from the arterial line, it is drawn in a way that does not contaminate it and the staff return it to the child. The blood draw procedure is going so well that the PICU team is considering using the methodology for every patient. This approach is labor intensive so the nurses are also performing a complementary study on workload related to the procedure.

Because of their innovation, adaptability, teamwork, focus on best practices, continuous process improvement, and patient and family-centered care, the PICU has been selected to receive the 2015 CNO Award for Team Excellence. Not only do they do it all, the PICU team wants to do it all. They are energetic and enthusiastic, always searching for ways to improve their care and their patients' outcomes. This is exactly what we hope for in the care of all of our patients, and in particular, our smallest and most vulnerable ones.



*Left to right: Jessica Dolim, BSN, RN, clinical nurse II; Lynda Sempele, RRT; Cindy Clark, CRNP; Odira Nwankwor, MD; and Courtney Foster, MD*



*Faith Hicks, MS, RDN, CSP*