JULY - SEPTEMBER 2022

QI QUARTERLY
VOLUME 1

PREPARED AND PRESENTED BY
SAMUEL GENTLE, MD
INTRODUCING THE PEDIATRIC OFFICE FOR IMPROVEMENT SCIENCE

The Pediatric Office for Improvement Science was created to realize improvement in patient outcomes for children across the state of Alabama by connecting departmental resources with divisional stakeholders, sharing opportunities for education and training, and advancing the quality of care using fundamentals of improvement science.

OUR GOALS AND OBJECTIVES

Through the formation of this office, and, in partnership with the Children’s of Alabama Performance Improvement Department, we aim to realize improvement in patient outcomes identified as departmental priorities, furthered by divisional alignment, and utilizing fundamentals of improvement science. Moreover, to grow the next generation of improvement scientists, we aim to formalize engagement with residents and fellows and further extend our expertise to faculty throughout the Department of Pediatrics. Our highest priority and the metric by which we will measure success will be measurable improvement of patient outcomes.
MEET OUR CO-DIRECTORS
THE PEOPLE BEHIND THE OFFICE

CHRISTINE CAMPBELL, MD, MPH

Dr. Campbell’s interest in patient safety and quality improvement began with her first job, at the Dartmouth Institute for Health Policy and Clinical Practice. Inspired, she went on to earn her MPH, MD, and certificate in Healthcare Quality and Safety from UAB. She is currently an Assistant Professor of Pediatrics and serves as Director of Quality and Safety for Pediatric Emergency Medicine. Prior projects include improving time until pain medicine, time until antibiotics for high-risk patients, and care of febrile neonates. In addition, she founded COA’s MOC Part 4 sponsorship portfolio and is involved in QI education for residents and fellows.

SAMUEL GENTLE, MD

Dr. Gentle is an Assistant Professor of Pediatrics at UAB. He received formative QI training through Cincinnati Children’s Intermediate Improvement Science Series. His outcome centered quality improvement work has included prior and current initiatives involving multidisciplinary utilization of oxygen saturation histogram analysis and standardizing ventilator weaning in extremely preterm infants. As the Neonatal Lead in the Alabama Perinatal Quality Collaborative, he has led state wide initiatives involving birth certificate accuracy and Neonatal Opioid Withdrawal Syndrome Initiative.

ADOLFO MOLINA, MD, MSHQS

Dr. Molina is an Assistant Professor of Pediatrics at UAB. He pursued additionally training in QI during his fellowship and acquired a Masters in Healthcare Quality and Safety from UAB. He has been involved in several QI efforts in the division of Hospital Medicine to improve the care provided to hospitalized patients and serves as a leader and consultant for QI efforts throughout the Department. His current efforts include improving food insecurity screening and the provision of resources to food insecure families. He additionally serves as the Director of Quality Improvement for the UAB Pediatric Residency Program.
Introducing our Physician Quality Officers

Amy Cajacob, MD  
Allergy and Immunology

Nicholas Cajacob, MD  
Gastroenterology, Hepatology, and Nutrition

David Galloway, MD  
Gastroenterology, Hepatology, and Nutrition

Rachel Kassel, MD  
Gastroenterology, Hepatology, and Nutrition

Jeremy Loberger, MD  
Critical Care

Salman Rashid, MD  
Neurology

Emily Smitherman, MD  
Rheumatology

A Bit More on Our Officers...

Physician Quality Officers within the UAB Department of Pediatrics are established leaders in quality improvement informed by formalized training and dedication to improvement within and beyond their subspecialty. Through their engagement with POISE we aim to grow the Department’s QI capacity through improved education, coaching and data analysis to ultimately improve the care of the children of Alabama. Through our combined efforts we aim to advance the academic productivity of the Department of Pediatrics as it relates to quality improvement as well as benefitting the faculty in assisting with MOC IV certification of existing projects.
WELCOME MAHEK VIRANI!

In collaboration with the Performance Improvement Department, we are excited to announce our newest member Mahek Virani who will serve as Clinical Outcome Coordinator. She obtained her B.S. in Healthcare Management and Communication at UAB after which she completed a MPH in Healthcare Policy and Management at Emory. Through Mahek's joint position with the Performance Improvement Department, Mahek will help with coordination, facilitation, and implementation of Clinical Outcomes improvement initiatives.
PROJECT SPOTLIGHT

TIME TO ANTIBIOTICS IN THE EMERGENCY DEPARTMENT

Patients with high risk conditions who present to the pediatric emergency room with fever are at an increased risk of morbidity and mortality secondary to infectious causes. Reduced times to first antibiotic dose is associated with improved outcomes including reduced morbidity and mortality. Under the leadership of Drs. James Dunville and Christine Campbell, the aim of this initiative was to increase the percentage of patients with specified high-risk conditions presenting to the Children’s of Alabama Emergency Department that receive antibiotics within an hour to 90% by July 2022.

OUR SICKEST CHILDREN DESERVE TIMELY TREATMENT.

Through introduction of a high-risk order set, improvement was noted both in the percentage of patients who received antibiotics in under 60 minutes and the mean time to antibiotics. Implementing a dynamic high-risk group antibiotic administration process in the ED appears to have reduced time to antibiotics and increased patient capture for patients at increased risk of infectious-related morbidity and mortality.
OUR PROGRESS

UPDATES FROM THE OFFICE

IMPROVING RECOGNITION FOR QUALITY IMPROVEMENT

Faculty QI Achievement Award
The Quality Improvement Achievement Award recognizes faculty engaged in quality work designed to improve health outcomes in children of Alabama. Criteria will include representation of quality work at regional and national conferences, continued commitment to QI education, publications, QI related awards, and other professional activities.

Fellow QI Achievement Award
Designed to recognize and celebrate quality improvement successes during fellowship training. Potential award receipts include:

- Fellow has accomplished exceptional work in creating systematic change leading to improved patient outcomes over time noted with specific quality metrics
- QI Project with targeted interventions/PDSA Cycles
- QI Project with multidisciplinary involvement across DOP
- QI Project reaching scholarly metrics including representation at a regional or national meeting, publication, or primary author on a QI associated grant
POISE on the Web

Over the coming months, we will be utilizing an online platform to serve as a portal to getting POISE assistance, submitting projects for MOC credit, highlighting our ongoing work, and providing a repository for QI tools.

Now Hiring

The POISE is looking to hire an Administrative Director! The director will serve as the primary interface to the office coordinating intake of quality improvement related questions to relevant resources. The Administrative Director will help provide oversight of workflow as to ensure timely completion of intake requests. They will further assist in the development and maintenance of a resource library of quality improvement tools and provide assistance with quality improvement strategization including measurement strategy and control chart utilization.

Quarterly Coaching Report

In the Neonatal Intensive Care Unit at UAB, POISE engagement has been directed to: (1) reducing the number of days extremely preterm infants are exposed to invasive ventilation to improve long term pulmonary outcomes, (2) reducing the proportion of infants with hypothermia on admission, and (3) standardizing the process of fluid advancement in extremely preterm infants following birth. Specific needs have included data analysis, measurement strategy, and data visualization.

In partnership with the Performance Improvement Department, POISE has assisted with data analysis and publication considerations for the no safe swallow initiative, a collaborative effort between the divisions of pulmonology and gastroenterology.

Division Outreach

Every month, the POISE engages with a division with the DOP to discuss opportunities for POISE engagement including education, project management, and recognition. For this quarter the POISE engaged with the divisions of Neonatal-Perinatal Medicine and Hospital Medicine. Half of respondents within these divisions agreed that additional resources were needed to support QI efforts including data analysis, informatics, and publication.
# Projected Timeline

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<tr>
<th>Task</th>
<th>Start Date</th>
<th>End Date</th>
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<tr>
<td><strong>Quarter 03</strong>&lt;br&gt;Foundational Elements</td>
<td>July 2022</td>
<td>September 2022</td>
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<td><strong>Quarter 04</strong>&lt;br&gt;Outreach, MOC IV Approvals</td>
<td>October 2022</td>
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<td><strong>Quarter 01</strong>&lt;br&gt;Continued Outreach</td>
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