Focusing in on Pediatric Imaging at an Adult Level II Trauma Center Jesse Gibson, MBA, BSN, RN, TCRN, Linda Greene, CSTR, Charles Richart, MD, FACS, FCCM and Lauran Wolf, MA, BSN, RN, TCRN, CEN, CCRN

Problem

Through performance improvement activities, Northeast Georgia Medical Center (NGMC) identified an opportunity to reduce the incidence of imaging prior to transferring pediatric trauma patients for definitive care. In particular, computed tomography (CT) scans of the chest, abdomen, pelvis and cervical spine were being over utilized in this population. These often unnecessary diagnostic tests delayed transfer and also increased radiation exposure risks.



Team Members

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Interventions

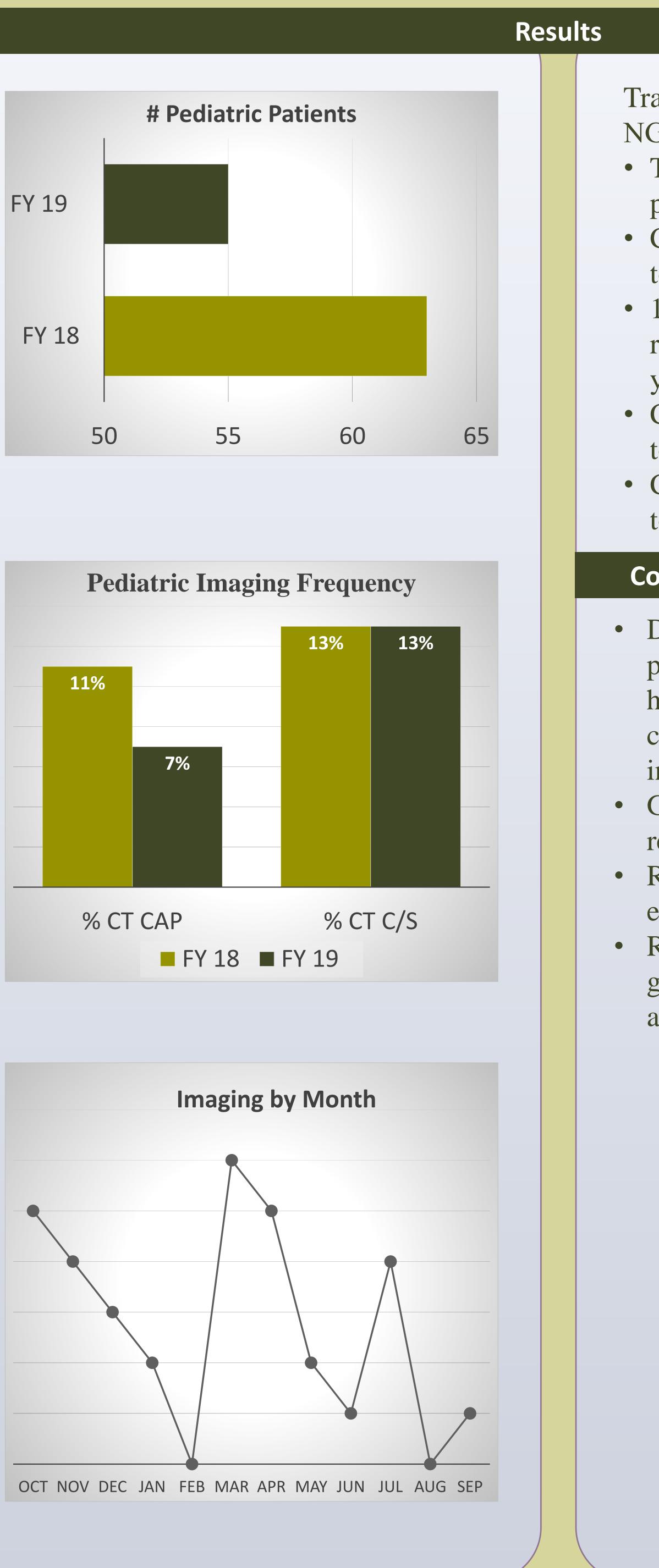
Various strategies were implemented to form a broad approach to the over imaging issue:

- Expanding the focus of pediatric chart review from reviewing only those who were admitted to NGMC to adding the pediatric patients transferred out of NGMC as an automated primary review, at the least.
- Identifying opportunities for improvement related to over utilization of pediatric imaging in real time.
- Providing an educational offering on pediatric imaging best practice by a Pediatric Emergency Medicine physician from Children's Healthcare of Atlanta (CHOA) to the NGMC ED Morbidity and Mortality meeting (M&M).
- Establishing a clear mechanism for feedback from CHOA regarding all pediatric transfers. Feedback from CHOA includes positive aspects of care at NGMC as well as opportunities for improvement, particularly related to imaging. This feedback is given to the ED or trauma provider involved in the case.
- Reviewing the Disposition and Management of the Pediatric Trauma Patient guideline to ensure clear expectations exist and then monitoring the guideline for compliance.

References

Northeast Georgia Medical Center Trauma Registry Data, 2019 Georgia Pediatric Trauma Imaging Guideline, Age <15, 2019

Northeast Georgia Health System





Trauma registry data was analyzed for NGMC's FY18 and FY19:

- There was a 13% decrease in pediatric patients
- CT CAP decreased from 11% in FY18 to 7% in FY19
- 13% of total pediatric patients
- received CT cervical spine in both years
- CT maxillofacial decreased from 6% to 1%
- CT brain increased from 27% in FY18 to 33% in FY19

Conclusions and Sustaining the Change

- Decreases in facial, chest, abdomen and pelvis CT scans were significant; however, there was no decrease in CT cervical spine and there was actually an increase in brain CTs
- Gradual decrease noted in all CTs when reviewing by month in FY19
- Recent adoption of Georgia statewide endorsed Pediatric Imaging Guidelines Rigorous PI will continue to ensure guidelines are followed and imaging is appropriate

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cessary based on patient condition	on, these imaging guide	lines, and	physician discretion.	
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Check I	Before	Yo	u Scan	
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Physical exam evidence of injuries	 Palpable skull fracture 		 Severe headache 	
centered on the head and neck region	<u> </u>		consider a Head C	т
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