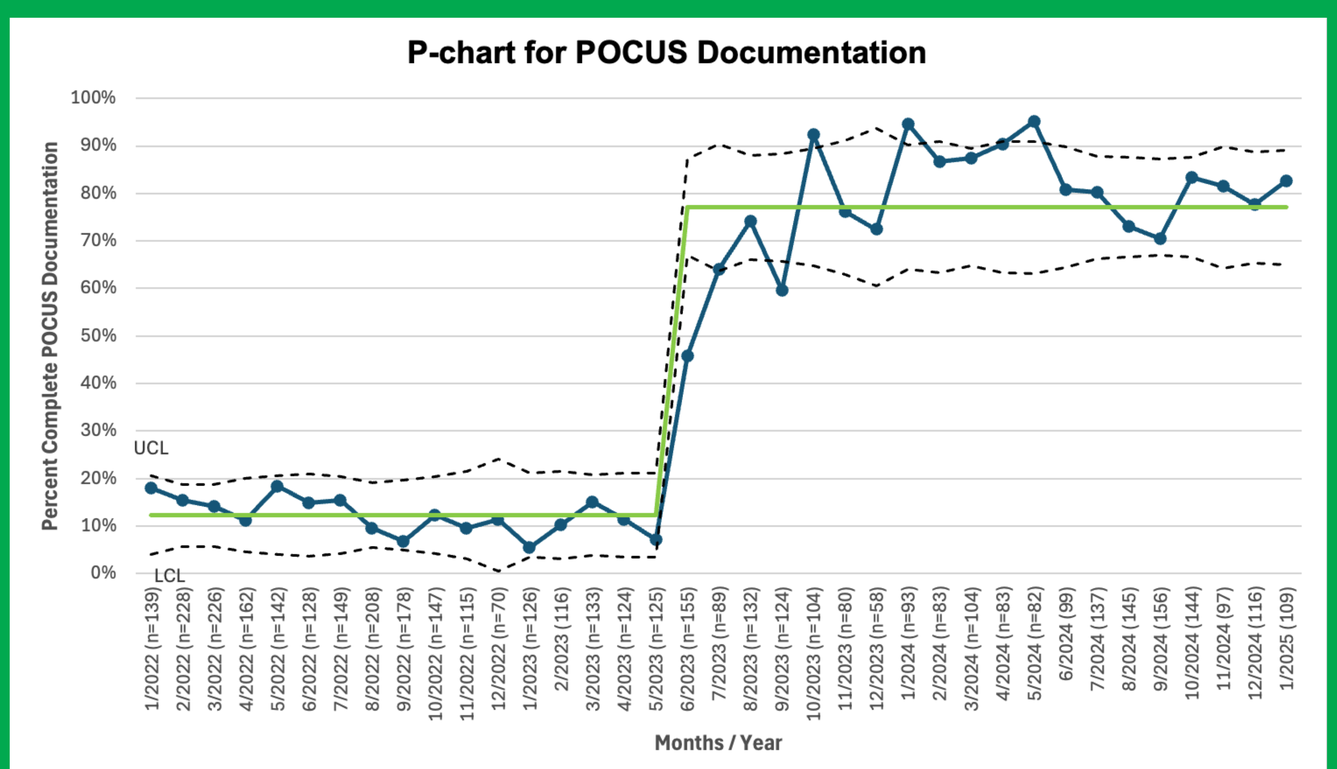
Point-of-care ultrasound structured EMR forms increased documentation rates from 12.6% to 77% in the past 20 months and led to billing for 900 studies in the past 10 months.



Hospital Campus Site	CPT Codes	Number of POCUS Studies Billed
Campus 1		**451**
Soft Tissue	76999, 76604, 76536, 76882	132
Arthrocentesis w/ US guidance	20611	2
CVL w/ US guidance	76937	3
Thoracic	76604	87
Limited abdomen	76705	117
Limited retroperitoneal	76775	5
Limited pelvic	76857	30
Scrotum	76870	2
Hip	76886	4
TTE	93308	69
Campus 2		**247**
Soft Tissue	76999, 76604, 76536, 76882	241
Arthrocentesis w/ US guidance	20611	4
CVL w/ US guidance	76937	1
Thoracic	76604	1
Campus 3		**202**
Soft Tissue	76999, 76604, 76536, 76882	61
Arthrocentesis w/ US guidance	20611	1
Thoracic	76604	39
Limited abdomen	76705	69
Limited retroperitoneal	76775	4
Limited pelvic	76857	23
TTE	93308	5
	Grand Total	**900**

Development of Billing for Point-of-Care Ultrasound (POCUS) in the Pediatric Emergency Department

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Problem

- Point-of-care ultrasound (POCUS) is an essential tool for pediatric emergency medicine (PEM) physicians
- The interpretation of studies must be documented in EMR in a consistent manner to clearly communicate with other medical team members as well as to support billing
- However, previous studies have shown that complete documentation of POCUS have been as low as 35%

Methods

- We used a human-centered design approach.
- We conducted walkthroughs of POCUS users workflow starting after performance of the POCUS study to completion of documentation.
- We developed structured forms for documentation that allow dynamic offered relevant content sections for data entry.
- We attempted to decrease physician documentation burden by pre-selecting the commonly chosen answers for each type of POCUS scan
- We provided education via email as well as during Emergency Medicine divisional monthly meetings
- We analyzed the proportion of POCUS studies with documentation in the EHR (by month) using a statistical process control chart

Results

- 12.6% of notes were completed in the pre-implementation using the existing structured documentation form
- 46% of notes were completed following intervention in June 2023
- The p-bar from June 2023 to January 2025 months was 77%.

Discussion

During walkthroughs, users identified the following issues with existing structured documentation:

1) Notes currently did not exist under "procedure tab," which is more consistent with current workflow for other types of similar procedures

2) Structured documentation could improve ease of use by including preselected options for normal findings.

After changes to structured documentation and education, documentation rates significantly increased from a baseline of 12.6% of images documented to 77% of images documented.

Conclusions

Redesigning structured documentation using human-centered design and dynamic documentation can increase the completion of documentation for POCUS.

Next steps will include comparison of documentation to findings in our POCUS quality assessment process to assess both completeness of necessary elements for billing and any incorrect documentation (e.g. because of pre-selected options).