

# Standardized Resident Physician Transitions of Care in the Emergency Department



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## BACKGROUND

- Transition of care (TOC) represents one of the most common and dangerous occurrences in an emergency department (ED).
- Miscommunication is the cause of 70% of sentinel events and 84% of treatment delays, and occurs in nearly 80% of medicolegal cases.<sup>1</sup>
- 24% of ED malpractice claims specifically implicate TOC.<sup>1</sup>
- The Accreditation Council for Graduate Medical Education requires that “[Residency] Programs, in partnership with their Sponsoring Institutions, must ensure and monitor effective, structured hand-over processes to facilitate both continuity of care and patient safety.”<sup>2</sup>
- At ECU, emergency medicine (EM) and emergency medicine/internal medicine (EM/IM) resident physicians (residents) receive training on TOC, but a system is not uniformly used by all providers.

## PROJECT AIM

Resident physicians in the emergency department will use a standardized patient TOC format 50% of the time in 8 months.

## PROJECT DESIGN/STRATEGY

The project targets EM and EM/IM residents at ECU/Vidant.

## CHANGES MADE (PDSA CYCLES)

1. May 2019 – Presentation given at resident conference on QI and transition of care in the ED; small groups created fishbone diagrams of factors affecting “Standardized Resident Check-Out in the ED.”
2. July 2019 – For 2 weeks, residents were encouraged to use the I-PASS handoff system and anonymously provide feedback on the method.
3. December 2019-January 2020 – Anonymous Qualtrics survey assessing resident perception of current TOC.
4. June 2020 – Presentation given during EM intern orientation on risks of TOC and TOC methods.

## RESULTS/OUTCOMES

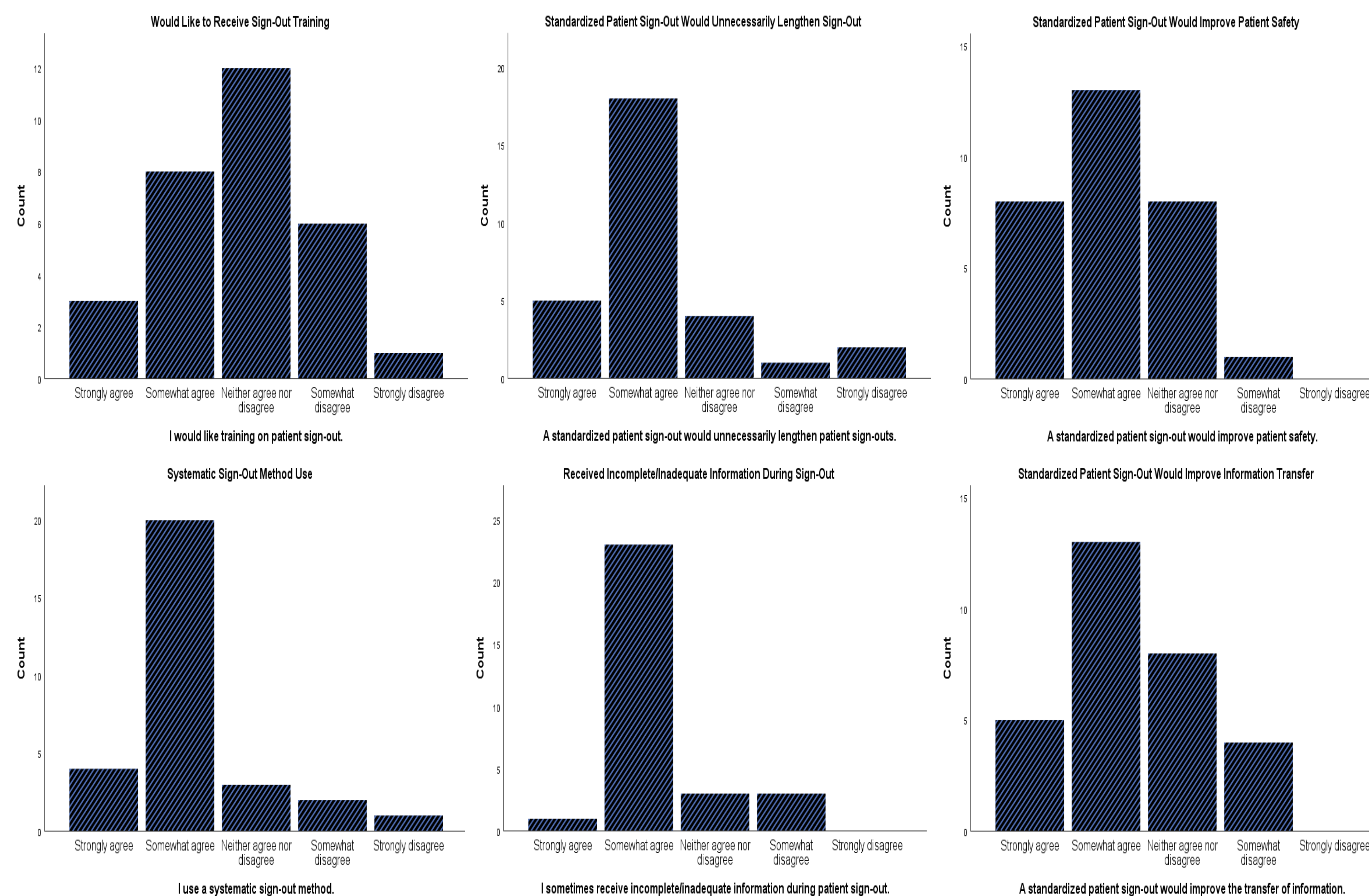
- From the fishbone diagrams, the most identified factors affecting TOC in the ED were resident experience level, attending influence, workroom size, number of computers, and interruptions.
- Perceived benefits of I-PASS were focused on the thoroughness of TOC.
- Perceived drawbacks of I-PASS were length of time required for TOC, redundancy of the system, and difficulty remembering each part of the system.
- 30 residents (62.5%; 11 PGY-1; 10 PGY-2; 9 PGY-3, -4, or -5) responded to the Qualtrics survey, with results to some questions displayed below.

## LESSONS LEARNED

- Resident dissatisfaction with a standardized TOC appears to be due to the perceived increased length of time required for TOC.
- A majority of residents believe that standardized TOC would improve patient safety and information transfer.
- An unexpected complication during the I-PASS PDSA cycle was the requirement for attending physician buy-in because residents and attendings currently perform morning TOC together.
- Residents indicate that environmental factors influence TOC, which could be a potential target for QI.

## POTENTIAL NEXT STEPS

- Resident simulation session practicing and comparing a standardized TOC method versus the usual method
- Anonymous survey of resident TOC perceptions and practices



A standardized patient sign-out would improve patient safety. \* A standardized patient sign-out would unnecessarily lengthen patient sign-outs. Crosstabulation

Count		A standardized patient sign-out would unnecessarily lengthen patient sign-outs.					Total
		Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	
A standardized patient sign-out would improve patient safety.	Strongly agree	0	5	1	0	2	8
	Somewhat agree	2	8	2	1	0	13
	Neither agree nor disagree	3	4	1	0	0	8
	Somewhat disagree	0	1	0	0	0	1
Total		5	18	4	1	2	30

### Symmetric Measures

		Value	Asymptotic Standard Error <sup>a</sup>	Approximate T <sup>b</sup>	Approximate Significance
Interval by Interval	Pearson's R	-.392	.123	-2.254	.032 <sup>c</sup>
Ordinal by Ordinal	Spearman Correlation	-.389	.150	-2.235	.034 <sup>c</sup>
N of Valid Cases		30			

## REFERENCES

1. Cheung DS, Kelly JJ, Beach C, et al. Improving Handoffs in the Emergency Department. Ann Emerg Med. 2010;55(2):171–80.
2. Accreditation Council for Graduate Medical Education. ACGME Common Program Requirements (Residency). [Accessed Dec 2019]. Available at: <https://www.acgme.org/Portals/0/PFAAssets/ProgramRequirements/CPRResidency2019.pdf>.

## ACKNOWLEDGEMENTS

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A standardized patient sign-out would improve the transfer of information. \* A standardized patient sign-out would unnecessarily lengthen patient sign-outs. Crosstabulation

Count		A standardized patient sign-out would unnecessarily lengthen patient sign-outs.					Total
		Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	
A standardized patient sign-out would improve the transfer of information.	Strongly agree	0	3	1	0	1	5
	Somewhat agree	1	9	1	1	1	13
	Neither agree nor disagree	2	4	2	0	0	8
	Somewhat disagree	2	2	0	0	0	4
Total		5	18	4	1	2	30

### Symmetric Measures

		Value	Asymptotic Standard Error <sup>a</sup>	Approximate T <sup>b</sup>	Approximate Significance
Interval by Interval	Pearson's R	-.390	.122	-2.243	.033 <sup>c</sup>
Ordinal by Ordinal	Spearman Correlation	-.389	.150	-2.235	.034 <sup>c</sup>
N of Valid Cases		30			

- Not assuming the null hypothesis.
- Based on the asymptotic standard error assuming the null hypothesis.
- Based on normal approximation.