

Research Abstracts

1 “DC HOME:” A Standardized Communication Tool Used During Discharge Improves Resident Performance

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Background: The discharge conversation is a critical component of the Emergency Department encounter. Studies suggest that Emergency Medicine residency education is deficient in formally training and assessing residents on the patient discharge discussion.

Objectives: To assess the proficiency of Emergency Medicine residents in addressing essential elements of a comprehensive discharge conversation, to identify which components of the discharge conversation are repeatedly omitted, to introduce “DC HOME,” a standardized discharge mnemonic, and to determine if its implementation improves resident performance.

Methods: This is a prospective observational pre and post intervention study done by convenience sampling of 400 resident discharge encounters. Resident physicians were observed by attending physicians who completed an evaluation, answering “Yes” or “No” as to whether residents addressed 6 different components of a comprehensive discharge. The 6 components included diagnosis, care rendered, health and lifestyle modifications, obstacles after discharge, medications and expectations or “DC HOME”. A 30-minute lecture introducing the mnemonic “DC HOME” was provided to resident physicians. Differences between pre-intervention and post-intervention were recorded.

Results: Resident physicians improved significantly in all 6 components of “DC HOME” from pre-and-post intervention: discharge diagnosis ($p=0.0036$) and the remaining 5 components ($p<0.0001$). There was a statistically significant improvement in patients’ perception for health and lifestyle modifications, obstacles after discharge, medications and expectations after discharge ($p<0.0001$) and discharge diagnosis ($p=0.0029$).

Conclusion: Emergency Medicine residents frequently fail to address key components of the discharge conversation. The implementation of the “DC HOME” discharge mnemonic improves resident discharge performance.

2 A Comparison of Standardized Letters of Evaluation for Emergency Medicine Residency Applicants

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Background: Medical students pursuing an EM residency are advised to obtain at least two Standardized Letters of Evaluation (SLOE). Students often complete one rotation at their home institution and at least one “away” rotation at a program separate from their home institution. The SLOE was introduced as an objective tool. There is a sparsity of literature comparing SLOEs of home and away rotations. Program directors value away SLOEs more highly than home SLOEs. A recent study determined students performed better on home rotations with respect to global assessment and rank list placement, but did not look at all parts of the SLOE.

Objective: The aim of this study was to determine if there is a difference in scores between home rotation and away rotation SLOEs.

Methods: The authors retrospectively reviewed applications of all applicants to an urban, academic EM residency program. For each SLOE, the authors calculated a composite score from rankings in seven skill categories, and converted global assessment and rank list position to percentile scores. The composite score, global assessment, and rank list position on the home rotation SLOE were compared to those of the away SLOE using a paired t-test for each student. Average scores were calculated and compared for students with more than one home SLOE or more than one away SLOE.

Results: An evaluation of 721 applicants with at least one home SLOE and one away SLOE demonstrated a significant increase in the estimated rank list placement of home rotators ($p=0.003$). The data failed to demonstrate a statistically significant difference in a composite score of the seven skill categories ($p=0.69$), or the global assessment ($p=0.97$).

Conclusion: Our study concluded that the only difference in SLOEs is that students are likely to be given a slightly higher estimated placement on the rank order list on a home SLOE. We hope this will help residency leadership with reviewing applications.

3 A Nationwide Survey of Program Directors on Resident Attrition in Emergency Medicine

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Background: Despite the burdens that resident attrition places upon programs, fellow trainees, and patients, little is known about attrition in EM. We aim to conduct the first national survey of EM program directors (PDs) to characterize reasons behind and risk factors for resident attrition in EM.

Objectives: The first nationwide survey of EM program directors showed that resident attrition is a complex and multifactorial entity. This survey study serves as the starting point for understanding attrition in EM. Our primary objectives are to quantify resident attrition in EM training programs and the reasons behind it from a PD perspective. Our secondary objectives are to describe demographic characteristics of residents undergoing attrition, personal factors associated with attrition, and the avenues of resident replacement.

Methods: We conducted a national survey study of all EM PDs during the 2018-2019 interview season. PDs were asked to identify all residents who left their program prior to completion within the last four academic years (2015-2016 to 2018-2019), provide relevant demographic information, and select perceived reasons for attrition. Frequencies, percentages, proportions, and 95% confidence intervals were obtained for relevant program- and resident-specific demographics. Fisher’s Exact tests were performed to compare reasons for attrition between age groups.

Results: A total of 118 of 217 PDs who received our recruitment email completed the questionnaire (response rate of 54%). During the four-year study period, 39 of the 118 programs (33%) experienced at least one resident attrition. A total of 52 residents underwent attrition. Residents undergoing attrition were more likely to be early in training. Gender was not associated with attrition. Older residents were more likely to leave due to perceived academic challenges. The most common perceived reason for attrition was to switch specialties. Resident replacement was successful in 42% of cases.

Conclusions: Nearly one-third of residencies were affected by resident attrition. Although arguably predictive of attrition in other fields, gender was not associated with attrition in our sample.

Table 1. Characteristics of residents undergoing attrition (n=52).

PGY* status in 2018-2019		n	%
	PGY-1	10	19.23
	PGY-2	15	28.85
	PGY-3	19	36.54
	PGY-4	8	15.38
Completed years at your program			
	Less than 1 year	13	25.00
	1 year	32	61.54
	2 years	7	13.46
Gender			
	Male	36	69.23
	Female	16	30.77
Estimated age			
	<26	6	11.54
	26-30	28	53.85
	31-35	9	17.31
	36-40	6	11.54
	>40	3	5.77
Under-represented minority in medicine			
	Yes	9	17.31
	No	42	80.77
	Unsure	1	1.92
Marriage status			
	Married	21	40.38
	Unmarried	27	51.92
	Unsure	4	7.69
Children before starting residency			
	Yes	10	19.23
	No	38	73.08
	Unsure	3	5.77
	Missing	1	1.92
New child or became pregnant during residency			
	Yes	6	11.54
	No	42	80.77
	Unsure	3	5.77
	Missing	1	1.92
Medical school education			
	MD** from US/Canada allopathic medical school	36	69.23
	DO*** from US/Canada osteopathic medical school	15	28.85
	International medical graduate	1	1.92
Trained in part or completed residency in another specialty before applying to EM****			
	Yes	6	11.54
	No	45	86.54
	Missing	1	1.92
Final rank list position			
	Top 10%	5	9.62
	Top 1/3	16	30.77
	Middle 1/3	19	36.54
	Lower 1/3	4	7.69
	Unknown	8	15.38
Ties to geographic area			
	Grew up in the area	6	11.54
	College/medical school, worked in area	7	13.46
	Has family living in area	3	5.77
	No ties to the area	29	55.77
	Unknown	6	11.54
	Missing	1	1.92

*PGY = Post-Graduate Year
 **MD = Doctor of Medicine
 ***DO = Doctor of Osteopathic Medicine
 ****EM = Emergency Medicine

4 A Novel and Well-Received Way to Track Resident Procedures

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Background: Tracking of ACGME-required procedure is fraught with issues. Resident progress was often only analyzed during semi-annually evaluations and residents had a propensity to fall behind. Objective: We sought to create a better way to track residents’ procedures in order to ensure they were keeping up-to-date. We then assessed whether the residents found it beneficial and motivating and whether they were offended by others seeing their progress.

Objective: To evaluate a novel way to track residents’ progress in documenting procedures

Methods: A spreadsheet was developed in Google Sheets. It contains the names of all the residents, the 15 required

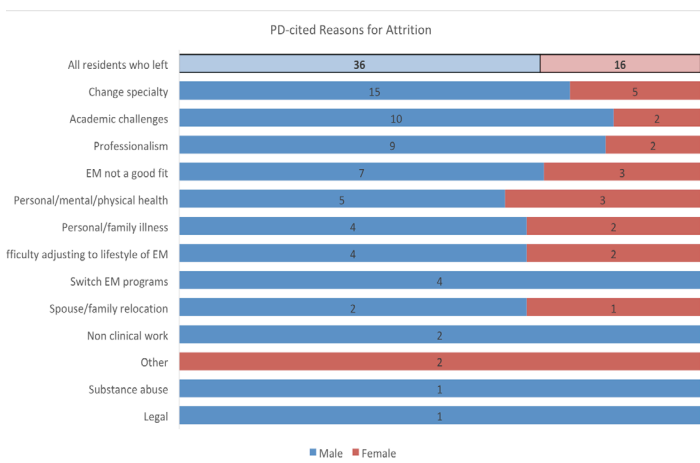


Figure 1. Perceived reasons for attrition, by gender.