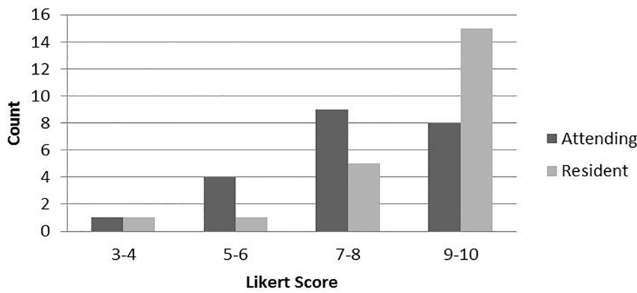
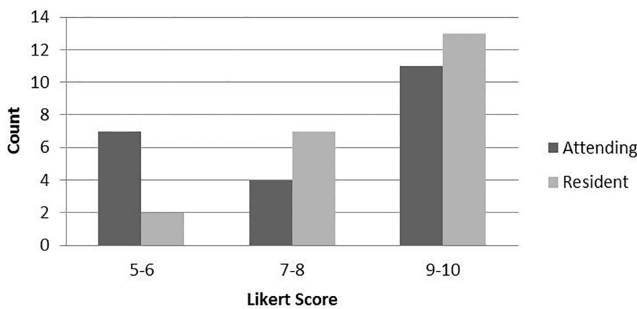


**Conclusions:** 4th Year medical students in the ED felt they received individualized teaching on most shifts. However, they reported their education goals were met more often when working with residents. From this, we plan to foster additional resident-student interaction and further train residents in bedside teaching. Overall, a larger sample size as well as input from preceptors are needed to further optimize ED education.

**Rating of Individualized Teaching on Shift with Attending and Residents**



**Rating of Learning Goal Achievement on Shift with Attending and Residents**



## 26 Onboarding of Mental Health Resource in Emergency Medicine Residency Programs

Swisher L, Tabatabai R, Brown M, /Drexel University College of Medicine, Philadelphia, Pennsylvania; Los Angeles County USC Medical Center, Los Angeles, California; University of Tennessee-Murfreesboro/ Nashville, Murfreesboro, Tennessee

**Background:** In accordance with the emphasis on resident well-being, a June 1, 2017 ACGME e-communication from Dr. Tom Nasca recommended “orientation on-boarding” as a targeted strategy to provide information on prevention, treatment and emergency resources for medical and mental health issues. At this time, there is no information regarding if or how EM programs institute wellness onboarding.

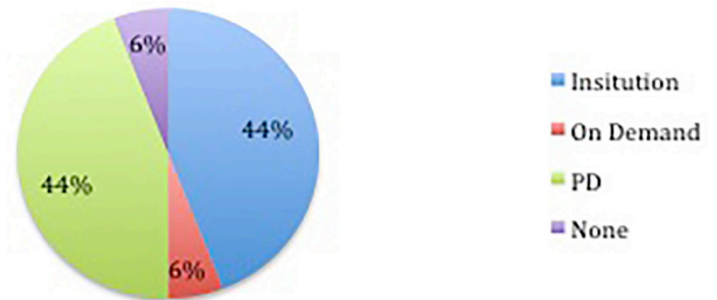
**Objectives:** To identify the type of mental health

resources and the mechanism of information dissemination which individual EM programs currently employ.

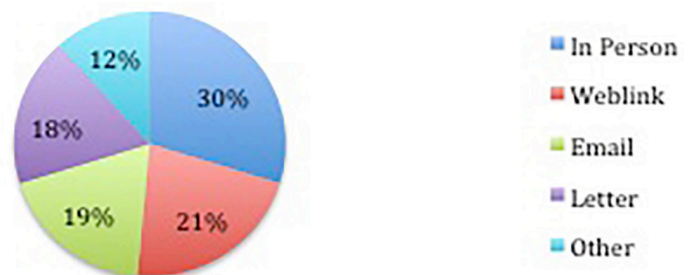
**Methods:** A request to participate and survey link was sent to program directors through the CORD program director listserv. The 7-item Qualtrics survey contained questions on process and format of wellness resource distribution to the residents. A specific request to attach residency specific wellness letters was made.

**Results:** There were 73 survey responses from 239 EM programs. Although 90% of the programs provided mental health resources during orientation, 10% did not. In providing mental health resources, 72% provided the information automatically, 25% provided the information on request and 3% did not provide mental health resources. Resources were provided by the sponsoring institution (46%), the program director during a designated session (42%) and on-demand only (6%). No mental health resources were given out by 6% of the respondents. Mental health resources were most commonly delivered in an in-person session (28%) or a weblink (20%),

**Conclusions:** Although more than 90% of responding program directors provided mental health resources during orientation, the small number of respondents casts doubt on the true incidence of mental health onboarding in EM programs. In greater than half of our responses, the sponsoring institution (rather than individual programs) more commonly provides this information. Given the July 2017 ACGME program requirements on wellbeing, it was surprising that 6% of the respondents did not know of any mental health resources being distributed to their residents.



Method of Mental Health Resource Distribution



Wellness Resource Distribution Format

The next step is to evaluate the logistical transparency of mental health resources as residents not only need to know the existence of mental health resources but also understand and trust the process in order to utilize them effectively.

## 27 Patients with Vital Sign Abnormalities Discharged by EM Residents: Is it a Problem and Who is at Risk?

Tichter A, Sayan O, Mulcare M, Farmer B, Waight G, Carter W, /Columbia University Medical Center, New York, New York; Weill Cornell Medical Center, New York, New York

**Background:** Medical error is the third leading cause of death in the United States. Abnormal discharge vital signs (VS) are known to be associated with increased risk of 30-day mortality and re-admission. Medical errors committed by residents have been extensively studied in the context of duty-hours and fatigue, but have focused primarily on specialties with 24-hour call. Little is known about medical error rates among residents in the emergency department (ED).

**Objectives:** Among patients cared for by residents and discharged from the ED, our objectives were to:

- Measure the proportion with abnormal discharge VS
- Compare the proportion with abnormal discharge VS who were and were not cared for by residents
- Determine which VS were most commonly abnormal
- Identify predictors of abnormal VS upon discharge

**Methods:** We performed a cross-sectional, secondary analysis of the National Hospital Ambulatory Medical Care Survey for the years 2014-2015. The population included patients cared for and discharged by ED residents. The primary outcome was abnormal VS on discharge, defined as pulse>100, systolic blood pressure<90, or respiratory rate>20. Descriptive statistics were used to characterize the population. Chi square was used to compare the proportion of discharged patients with abnormal VS between resident and non-resident cases. Logistic regression was performed to identify predictors of discharge with abnormal VS.

**Results:** An estimated 14,643,483 patients cared for by residents were discharged from the ED, of which 4.76% (95%CI 2.44, 9.07) had abnormal VS. Among discharged patients in whose care residents were not involved, an estimated 4.88% (95%CI 4.35, 5.48) had abnormal VS, with no significant difference between groups (p=0.94). Pulse was the most commonly abnormal VS, with 3.31% (95%CI 1.46, 7.32) of discharge heart rates>100. There were no significant associations between any of the predictors and the primary outcome in our multivariable model.

**Conclusions:** Only a small number of ED patients cared for by ED residents are discharged with abnormal VS, with no significant difference compared with non-resident cases. Pulse

is the most commonly abnormal VS, and there are no clear predictors for this relatively uncommon error.

**Table 1.** Demographic characteristics of patients who were discharged from the ED by EM residents.

Variable	Number of Unweighted Visits	Number of Weighted Visits	Weighted Proportion of Visits (95% CI)	Weighted Proportion Discharged with Abnormal VS (95% CI)
TOTAL VISIT!	2,445	15,000,000	5.26% (3.44, 7.96)	4.76% (2.44, 9.07)
<b>MONTH</b>				
Jan	114	530,000	<sup>§</sup> 3.59% (1.58, 7.92)	<sup>§</sup> 7.04% (1.38,29.07)
Feb	137	640,000	<sup>§</sup> 4.35% (1.76, 10.32)	<sup>§</sup> 0%
Mar	185	2,100,000	<sup>§</sup> 14.46% (4.49, 37.80)	<sup>§</sup> 10.46% (6.40,16.62)
Apr	184	2,200,000	<sup>§</sup> 15.05% (5.63, 34.49)	<sup>§</sup> 8.58% (6.43,11.38)
May	143	900,000	<sup>§</sup> 6.17% (2.39, 15.02)	<sup>§</sup> 1.77% (0.50,6.11)
Jun	200	1,200,000	<sup>§</sup> 8.33% (3.96, 16.70)	<sup>§</sup> 3.81% (1.44,9.70)
Jul	199	1,100,000	<sup>§</sup> 7.37% (3.52, 14.77)	<sup>§</sup> 3.46% (1.51,7.74)
Aug	344	1,100,000	<sup>§</sup> 7.32% (3.07, 16.46)	<sup>§</sup> 3.7% (0.98,13.01)
Sep	100	990,000	<sup>§</sup> 6.79% (2.14, 19.56)	<sup>§</sup> 0.3% (0.03,2.81)
Oct	114	1,200,000	<sup>§</sup> 8.03% (3.31, 18.21)	<sup>§</sup> 3.22% (0.74,12.91)
Nov	415	1,700,000	<sup>§</sup> 11.58% (5.35, 23.28)	<sup>§</sup> 1.62% (0.57,4.55)
Dec	310	1,000,000	<sup>§</sup> 6.96% (3.25, 14.31)	<sup>§</sup> 4.12% (1.89,8.76)
<b>SEASON</b>				
Winter	561	2,200,000	<sup>§</sup> 14.9% (7.73, 26.78)	<sup>§</sup> 3.62% (1.88-6.89)
Spring	512	5,200,000	<sup>§</sup> 35.68% (14.28, 64.88)	<sup>§</sup> 8.17% (4.62-14.04)
Summer	743	3,400,000	23.02% (12.99, 37.45)	<sup>§</sup> 3.66% (1.95-6.77)
Fall	629	3,900,000	26.40% (14.52, 43.11)	<sup>§</sup> 1.77% (0.67-4.60)
<b>AGE GROUP</b>				
15-24	506	2,800,000	18.92% (16.22, 21.95)	<sup>§</sup> 6.65% (4.11,10.60)
25-44	882	5,400,000	36.77% (34.52, 39.07)	<sup>§</sup> 2.66% (1.37,5.10)
45-64	694	4,100,000	28.22% (26.11, 30.42)	<sup>§</sup> 6.15% (2.67,13.55)
65-74	184	1,000,000	7.05% (5.15, 9.59)	<sup>§</sup> 2.63% (0.84,7.89)
>=75	179	1,300,000	9.04% (6.55, 12.36)	<sup>§</sup> 6.69% (2.33,17.71)
<b>GENDER</b>				
Male	1,111	6,400,000	43.85% (40.66, 47.10)	5.26% (2.82,9.59)
Female	1,334	8,200,000	56.15% (52.90, 59.34)	<sup>§</sup> 4.13% (1.86,8.93)
<b>RACE/ETHNICITY</b>				
White	1326	7,500,000	51.49% (43.34, 59.57)	5.33% (2.36,11.60)
Black	657	4,700,000	31.79% (23.88, 40.90)	<sup>§</sup> 3.46% (2.27,5.25)
Hispanic	364	1,800,000	12.50% (7.72, 19.63)	<sup>§</sup> 2.85% (1.12,7.06)
Other	98	620,000	4.21% (2.83, 6.24)	<sup>§</sup> 13.29% (4.17,35.05)
<b>PAYMENT</b>				
Non-Private	1,604	9,300,000	63.70% (56.67, 70.27)	3.75% (2.20,6.32)
Private	841	5,300,000	36.30% (29.73, 43.33)	<sup>§</sup> 6.54% (2.75,14.78)
<b>HR</b>				
<=100	2399	14,000,000	96.69% (92.68, 98.54)	
>100	46	480,000	<sup>§</sup> 3.31% (1.46, 7.32)	
<b>RR</b>				
<=20	2404	14,000,000	97.70%	96.11% 98.65%
>20	41	340,000	2.30%	1.35% 3.89%
<b>SBP</b>				
<90	0	0	0	
>=90	2445	15,000,000	100.00%	

CI, confidence interval; HR, heart rate; SBP, systolic blood pressure; VS, vital signs.

§ = <30 observations or relative standard error >30%