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Identification and Instruction of Core ECG Interpretation Skills Necessary for Emergency Medicine Residency Readiness

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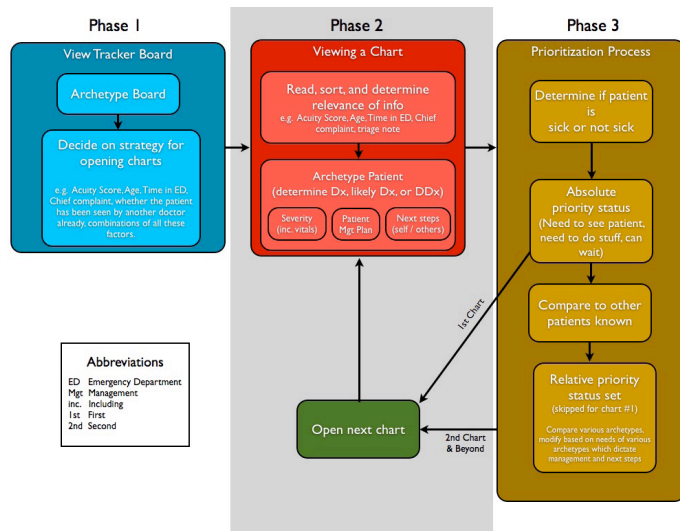
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Figure 1.

p-value<0.0141). There was a significant decline between the immediate post-quiz and the 3 month post-quiz, mean difference 3.3 (2.4-4.2; p-value<0.0001).

Conclusions: One presentation significantly increased participants' knowledge of HT. Annual education is recommended to strengthen participants' abilities to identify victims of human trafficking and to maintain a high level of awareness. Future areas of investigation will focus on the ideal timing of refresher presentations on HT and whether increased awareness among residents and faculty results in increased victim identification in the clinical setting.

36 Human Trafficking Didactic Session Resulted in Improved Awareness

Findlay S, Harland K, Runde D, Wheaton N / University of Iowa, Iowa City, IA

Background: It is estimated there are 25 million victims of human trafficking (HT) worldwide. Approximately 20,000 people are trafficked into the US annually. In 2014, less than 5100 victims were identified in the US despite the fact that up to 88% of victims of HT have contact with health care providers. This gives providers a unique opportunity to identify individuals of HT.

Objectives: The purpose of the study was to evaluate the effect of a HT presentation on participant awareness.

Methods: We performed a prospective cohort study of residents and rotating medical students in our university-based EM residency program. Participants were given a 45-minute presentation that focused on HT awareness, identification, and available resources. To assess knowledge and retention a 15 point quiz was given on three occasions. Quiz 1 was given prior to the presentation, quiz 2 was given one day following the presentation, and quiz 3 was given approximately three months following the presentation. Participants were excluded if they were unable to attend the presentation.

Results: Participants had a significant increase in HT knowledge following the presentation. There were 25 eligible participants. Two were excluded because they were unable to attend the presentation. Pre-presentation quiz and one day post-quiz were completed by 23 participants. Four participants didn't complete the 3 month post-quiz. Paired t-test analysis was performed. Mean pre-presentation score was 8.2 out of a total of 15 points. One day mean post-presentation score was 13.2 with a mean difference of 4.9 (95% CI, 4.1-5.7; p-value < 0.001). Three month mean post-presentation score was 10.1 with a mean difference of 1.7 (95% CI, 0.4-3.1;

37 Identification and Instruction of Core ECG Interpretation Skills Necessary for Emergency Medicine Residency Readiness

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Background: Adequate knowledge and recognition of multiple ECG abnormalities is essential for residency readiness. There is no clear consensus regarding core ECG interpretation skills necessary for Emergency Medicine (EM) residency. Confidence and proficiency in first year residents in ECG interpretation skills is low. The optimal way to teach ECG interpretation skills needs further investigation.

Objectives: Determine the core ECG findings incoming EM residents should recognize.

Evaluate a flipped classroom approach to teaching core ECG interpretation skills.

Methods: We surveyed EM faculty at 7 EM residency programs to determine the most important ECG findings that incoming EM residents should recognize. We used the top 20 findings to create a test for senior medical students during their 4th year EM Clerkship. 74 students were pretested on ECG interpretation during the first week of the clerkship. Students then completed a web-based asynchronous learning module followed by a readiness assurance quiz upon module completion. Each student next attended a small group interactive discussion to review the ECG interpretation concepts plus clinical correlation questions related to the 20 ECG findings. Students were retested 2 weeks later using the same exam as the pretest. A convenience sample of 22 students was retested 1-5 months following intervention providing retention data.

Results: 106 EM faculty from 7 residency programs responded to the survey (49%). Of 44 ECG findings, 20 were selected by more than 65% of respondents. Faculty felt the majority of incoming EM residents' ECG interpretation skills were at or below expected level. Over 40% of students couldn't identify 4 of these 20 core ECG findings during pretesting (Table 1). Following our intervention, total ECG interpretation test scores significantly improved from pretest to both posttest and retention (p < .001, r = .78), but there was

not significant change from posttest to retention (p = 0.99).

Conclusions: EM faculty respondents identified 20 core ECG findings imperative for a first year EM resident to recognize. Our flipped classroom approach was effective in enhancing senior medical students' recognition and retention of these core ECG findings.

Figure 1.

Item	N	% Correct, Pre-Test	% Correct, Post-Test	Exact p
Ant MI	74	86.4	99.0	0.01
NSR	74	59.5	81.0	0.01
RBBB	73	84.0	99.0	0.001
AFlut	74	92.0	98.8	0.06
Brady	74	95.7	97.1	0.99
1st deg	74	74.0	85.0	0.17
3rd deg	74	74.0	96.0	<0.001
HyperK	74	96.4	99.1	0.63
Tachy	70	84.3	91.4	0.23
Inf MI	74	73.1	87.0	0.052
Lat MI	74	37.5	62.0	0.002
Post MI	74	34.8	75.0	<0.001
2nd degT1	74	80.7	93.0	0.02
Vtach	74	90.4	98.5	0.07
Vfib	74	94.4	98.4	0.38
Asyst	74	69.7	97.8	0.45
SVT	74	60.0	99.0	0.001
LBBB	74	50.4	84.0	<0.001
Afib	74	85.4	92.0	0.27
2nd degT2	74	69.1	92.0	<0.001
Mean		80.0	92.5	<0.001

Note: Significance (*p*) is determined using an exact version of McNemar's dependent chi-square test.

38 Identifying Communication Behaviors Associated with Higher ED Patient Satisfaction Scores

Finefrock D, Patel S, Nyirendra T, Zodda D, Nierenberg R, Ogedegbe C, Feldman J / Hackensack University Medical Center, Hackensack, NJ

Background: While it is known that certain behaviors of medical providers correlate with higher patient satisfaction, there is insufficient data on which behaviors are most important. We implemented a training program called PatientSET "satisfaction every time" consisting of 4 hours of online, video CME education that included the following communication behaviors during the initial ED interaction between providers and patients: Pause before entering, Smile, Introduce yourself, Shake hands, Acknowledge the wait and apologize, Begin with open-ended question such as "How can I help you?", Overestimate Time and Perform at least 1 non-medical gesture.

Objectives: The primary objective of this study were to identify discrete positive physician-patient communication behaviors and their correlation to physician patient satisfaction scores. Additionally, providers with low compliance to the positive behaviors were retrained in order to observe the effect of the training program on behavioral compliance.

Methods: This is a retrospective review of 272 observations of 19 emergency department providers (16 physicians, 2 physician assistants and 1 nurse practitioner) at a high volume, high acuity ED. Providers were included if they had N>30 Press Ganey (PG) surveys from the previous 4 consecutive quarters and excluded if they had N<30 PG surveys. High performers were defined as having PG scores > 40th percentile while low performers were defined as having PG scores < 40th percentile. The high performers had an average PG score of 69% (N=412 total PG surveys) while the low performers had an average PG score of 14% (N=491 total PG surveys). The Low performers were observed again 6 months later after completion of the PatientSET training program. Any associations with the number of times the clinicians exhibited the positive behavior was examined using Poisson regression analysis. This analysis was conducted to compare number of times providers exhibited behaviors 1. Between high performing provid

Results: Our results detailed 8 high performing providers and 11 low performing providers as related to frequency of PatientSET behavior use. Each provider had bedside observations completed by trained observers. The results showed that being a high performing provider was associated with significantly higher frequency of 6 PatientSET behaviors (RR ranging from 1.55 to 16.76), including all behaviors except "Pause before entering" and "Introduce yourself". High performers had a higher frequency of PatientSET behaviors across 6/8 categories with a mean p value of <0.0001.

Observations were obtained 6 months later for 8 of the 11 low performers after the education intervention. After their educational intervention, low performing provider's compliance with the PatientSET improved in 4 behaviors with relative ratios (RR) ranging from 2.3 to 10.0. Overall their compliance with the PatientSET improved across all behaviors with a mean p value <0.01.

Conclusions: We conclude that using a provider education tool like PatientSET is effective in identifying behavioral modifiers that lead to improved ED provider-patient interactions. Among our high and low performing providers, the high performing providers consistently performed the positive PatientSET behaviors. In addition,