



*Celebrating*  
**50**  
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Emergency Physicians**  
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**The Ginny Kennedy Palys Annual Symposium**  
**May 25th, 2023**  
**Northwestern Memorial Hospital, Chicago, IL**

***STATEWIDE RESEARCH  
SHOWCASE EBOOK***

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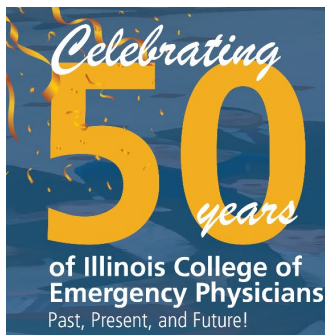
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# The Ginny Kennedy Palys Annual Symposium

## May 25th, 2023

### Northwestern Memorial Hospital, Chicago, IL

## Our Growing Challenge: Urban ED Workplace Violence Based on Gender, Healthcare Role, and Barriers to Reporting

*Miranda S. Bradley, MD\*, Sabrina Rabin, MD, Sophia Redpath, Nicholas Cozzi, MD, MBA, Savannah Benko, MD, Ololade Akinfemiwa, MD, William Mati, Prakriti Mehta, Pam Manning, G. Carolyn Clayton, MD, FACEP, Edward Ward, MD, FACEP, Michael Gottlieb, MD, FACEP, Yanina Purim Shem-Tov, MD, MS, FACEP*

### Background:

A 2022 American College of Emergency Physicians (ACEP) study reported 85% of emergency medicine physicians believe emergency department (ED) violence is increasing.

### Objective:

To assess the rate of physical and verbal violence experienced in two EDs, determine how rates differ by gender and healthcare role, and uncover barriers to reporting violence.

### Design/Methods:

An ACEP validated, anonymous survey on ED violence was emailed to all ED staff (Physicians, APPs, nurses, technicians, clerks, registrars, pharmacists) from two hospitals within an urban health system. Responses were accepted 12/15/22 to 12/23/22. Questions assessed participant's gender, healthcare role, frequency, and suspected etiology of verbal or physical assaults experienced. Descriptive statistical comparisons were made based on categorical data.

### Results:

Our study collected 119 completed surveys, approximately 32.5% of total ED staff, with 85% from an academic center and 15% from a community hospital. Respondents identified as female (71%), male (26%), nonbinary (2%), preferred not to answer (1%). Roles included nurses (34%), attending physicians (21%), emergency medicine resident physicians (18%), and other staff (27%). Physical and verbal assaults were experienced at 82% and 32%, respectively. Nurses experienced most physical assaults at 56%, then attendings (26%), residents (11%), and technicians (7%). Of the 23% who reported any assault to leadership, 89% were female and 11% male. Women were three times more likely to be assaulted or witness assault, 71% vs. 23% of men. Technicians reported assaults to leadership the most at 45% and residents did not report once. Physicians cited psychiatric illness and intoxication as primary factors to violence, while technicians and nurses cited increased boarding. Regarding barriers to reporting, 42% reported "Other," 33% lacked knowledge of how to report, 8% feared losing their job, 8% feared being blamed, and 8% reported lack of support from colleagues. In terms of "Other," several write-in responses indicated decreased confidence assaults will be followed up.

### Conclusion:

Data suggests violence experienced and reported varies by role and gender. Nurses, a cohort that is predominantly female in our study, noted the highest rates of violence. Technicians formally reported events most frequently, and residents did not report. Multiple barriers exist to reporting, including educational issues as well as the perception it will not impact change.

### Impact:

This study emphasizes ED-based violence is a challenge impacting all roles within the department. Further research is indicated to evaluate trends in violence while a primary focus of intervention should be to address barriers to reporting.



## A Preliminary Assessment of Frequency and Volume of Emergency Department Utilization by Homeless Patients

*Theresa Nguyen, MD, FACEP\*, Alexandra Plezia, MS3, Dean Renna, MS2, Michael Feijoo, MS2*

### Background:

Individuals experiencing homelessness may require emergency department (ED) services due to their elevated rates of traumatic injuries from assault and because of their overall poor health status and higher rates of morbidity when compared to the general population. This can lead to strain on the healthcare system and overcrowding in ED's.

### Objective:

The goal of this study was to perform a baseline analysis of Emergency Department utilization by homeless patients at Chicagoland EDs and offer insight into unmet needs that can be better addressed to serve this community.

### Design/Methods:

A retrospective review was performed using the medical record numbers (MRNs) of 50 homeless patients ages  $\geq 18$  who were previously identified in a needs assessment survey conducted at an urban ED. We extracted data from the medical record for ED encounters between January 2021 and December 2022, focusing on number of ED visits, chief complaint, workup completed, prevalence of substance use and psychiatric conditions, and whether social work was consulted. Patient data was analyzed using descriptive statistics, with further statistical analysis currently in process.

### Results:

325 encounters were reviewed (n=50 homeless patients averaging 6.5 visits each, with one outlier patient with 72 visits in one year excluded) for visits to 20 hospitals in Chicagoland. Common chief complaints for these encounters included psychiatric evaluation (37.6%), alcohol intoxication (14.6%), drug use related visits (7.5%), medication refills (3.7%), and social needs (2.2%) with concomitant substance use and/or mental health disorder present in 97.2% of total encounters. Many patients underwent similar or repetitive workups, including 135 alcohol screenings (41.7%), 130 urine drug screens (40.1%), 117 EKGs (36.1%), 65 x-rays (20.1%), and 37 CT scans (11.4%). A social worker was documented to have been consulted 33.6% of the time (109 encounters) and resources were offered to patients in 28.1% of encounters. In these visits, over \$30,000 of similar workups were performed, including CBC's, CT scans, urine drug screens, and x-rays.

### Conclusion:

An overwhelming majority of homeless patients presented with mental health-related chief complaints, with many potentially redundant and costly workups performed at a significant cost to the healthcare system.

### Impact:

This study demonstrates an unmet need for psychiatric care and better allocation of resources to support the homeless community who utilize the ED for care, as this can lessen the burden on the healthcare system and reduce morbidity and mortality within this population.



## Implementation of an Emergency Medicine Palliative Care Curriculum for Emergency Medicine Residents

*Dylan J Rupska, MD; Travis L Hase, MD; Ryan M Tabor, MD; Mariane C Ndiaye, MPH; Margaret M Putman, DO\**

### **Background:**

Half of Americans visit the Emergency Department (ED) in their last month of life, and 75% in the last six months. 2 Because many patients present to the ED while critically ill, it is imperative emergency medicine (EM) physicians be able to quickly align with patients and families to determine patients' values and offer recommendations. EM physicians have reported that palliative care is an important competence in their practice, yet they feel they are not adequately educated in providing palliative care. Previously reported EM residency palliative curricula were effective methods to increase knowledge and confidence in palliative care skills.

### **Objective:**

Our aim was to develop a palliative care curriculum for EM residents and evaluate if this curriculum improves residents' knowledge, level of comfort, and perceived application of skills in caring for patients with chronic and/or terminal illness in the ED. Secondly, we aimed to determine if EM residents find palliative care education important and determine which modalities are most effective.

### **Design/Methods:**

A curriculum was developed that consisted of didactic sessions, communication skills lab, and small group simulation case. The inclusion criteria were EM residents at one Illinois program in all levels of training. The exclusion criteria were resident co-investigator and residents that did not consent to participation. Data was collected via pre- and post-intervention surveys using Likert Scale questions. The pre-intervention survey data was collected from 7/26/22 - 8/2/22. Post-intervention survey data was collected from 12/21/22 - 12/30/22.

### **Results:**

The number of subjects was 41. All variables were found to be not-normally distributed, leading to the use of the non-parametric equivalent of the paired t-test, the Wilcoxon Signed-Rank test. Survey items 3-12 were found to have statistically significant differences. See Table 1. Survey results evaluating learning modalities showed residents felt lecture, small group discussion, and simulation are all effective education tools, with strongest preference for simulation and small group discussion.

### **Conclusion:**

This palliative care curriculum did improve EM residents' knowledge, level of comfort, and perceived application of skills in caring for patients with chronic and/or terminal illness in the ED. EM residents did find palliative care education important. Lecture, small group discussion, and simulation were all found to be effective modalities, and the strongest preference was for simulation and small group discussion.

### **Impact:**

EM residencies should consider the addition of a focused palliative care curriculum.

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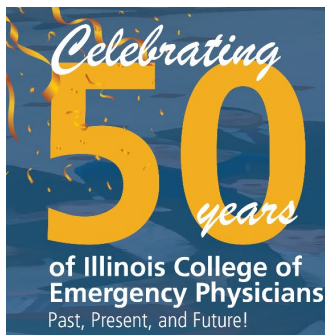
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Table 1: Wilcoxon Signed-Rank test results for Likert Scale Survey Questions

Survey Items	Pre-Test Median Score with interquartile range N = 41	Post-Test Median Score with interquartile range N = 41	Wilcoxon Signed-Rank P-Value
1) Emergency Medicine has an important role in providing palliative care	5 (4-5)	5 (4-5)	1
2) Palliative care education is important in Emergency Medicine residency	4 (4-5)	4 (4-5)	0.8333
3) I feel confident in my ability to determine a patient's decision making capacity	4 (3-4)	4 (4-5)	<0.0001*
4) I feel confident in my ability to have goals of care discussions with my patients/surrogates	4 (3-4)	4 (4-5)	<0.0001*
5) I feel confident in my ability to interpret advanced directive forms (POLST, surrogate decision maker, living will, etc)	3 (2-4)	4 (4-4)	<0.0001*
6) I feel confident in my ability to manage symptoms associated with the last hours of living	3 (2-3)	4 (3-4)	<0.0001*
7) I feel confident in my ability to effectively negotiate decision making with patients and families regarding risks, benefits, and alternatives when patients present with chronic or terminal illness	3 (2-3)	4 (4-4)	<0.0001*
8) I feel confident in my ability to treat refractory symptoms associated with chronic/terminal disease	2 (2-3)	4 (3-4)	<0.0001*
9) I feel confident in my ability to perform effective acute pain management in patients with palliative care needs	3 (2-4)	4 (4-4)	<0.0001*
10) I feel confident in my ability to effectively communicate bad news including death disclosure, errors, unexpected outcomes, and other challenges while caring for patients with life-limiting illnesses and those at the end of life	3 (2-4)	4 (4-4)	<0.0001*
11) I understand the difference between hospice	3 (2-4)	4 (4-5)	<0.0001*
and palliative care and the resources each provides to patients			
12) I feel confident in my ability to initiate contact and involve palliative and/or hospice care teams to optimize care for patients in the ED	2 (2-3)	4 (4-4)	<0.0001*



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## A Descriptive Analysis of Social Needs, Medication Access, and Adherence Across Two Inner City Hospitals

Geoffrey Yang\*, BA, Jesse Chan, BA, Giles W. Slocum, PharmD, BCCCP, Michael Choi, BA, MBS, Amanda Apato, PharmD, Stephany Nunez Cruz, PharmD, Robert Gore, MD, Michael Gottlieb, MD, FACEP

### Background:

Social determinants of health (SDoH) affect health outcomes and can influence adherence to medication regimens. However, there are limited data on the linkage between SDoH and medication adherence in the Emergency Department (ED).

### Objective:

The objective of this study was to identify social needs and assess medication adherence of ED patients from two inner city hospitals.

### Design/Methods:

This is a prospective cross-sectional study across two different EDs to determine SDoH and medication adherence. We included adults ( $\geq 18$  years), who spoke English, and took  $\geq 4$  prescription medications or  $\geq 1$  "high risk" medication, including immunosuppressants, antiepileptics, sedative-hypnotics, anti-Parkinson agents, anticoagulants, antiplatelets, antihyperglycemics, or cardiovascular medications. Medications were deemed "high risk" by ED pharmacists based on their long-term usage and side effects. Patients completed a survey regarding demographics, social needs, and medication adherence. The survey was created through expert consensus and literature review and was pilot tested with cognitive interviewing prior to use. Data are reported descriptively.

### Results:

To date, we enrolled 108 patients (50.9% female). Mean age was 59 years. Of this population, 11 (10.2%) reported unstable housing, 20 (18.5%) reported concern about having sufficient food, 34 (31.5%) reported always or sometimes having insufficient money to pay bills, and 29 (26.9%) neglected medical care due to distance or transportation. 37 participants (34.3%) reported running out of their medications sometimes or always, with 16 (14.8%) stating they sometimes would defer refilling medications due to cost and 10 (9.3%) noting that they sometimes took less medication to save money. 20 participants (18.5%) reported that paying for medications was somewhat or very difficult, while 17 (15.7%) reported that understanding the medication regimen was somewhat or very difficult.

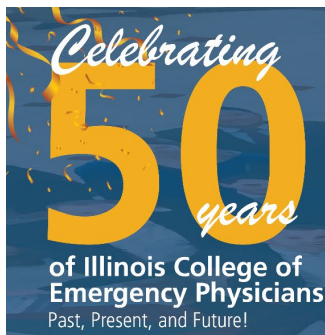
### Conclusion:

Among patients presenting to the ED who were on  $\geq 4$  prescription medications or taking "high risk" medications, over one-third had social needs that impacted their medical care. The most commonly reported social needs were insufficient money to pay bills and difficulty accessing medical care due to distance or transportation. The most common medication adherence issues were running out of medications and deferring medication refills due to cost. A large percentage of participants also reported difficulties in paying for medications and understanding medication regimens.

### Impact:

This study demonstrates the prevalence of social needs and medication adherence issues among patients across two inner-city EDs. Data suggest a large percentage of ED patients have social needs and issues adhering to medication regimens.





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## Asynchronous Case-based Learning Using Slack: A Multi-year Study

*Katherine Aulis, MD\*, Alison Vasa, MD, Tarlan Hedayati, MD, FACEP, Neeraj Chhabra, MD, and Katia Johnston, MD*

### **Background:**

The use of internet technologies to facilitate asynchronous learning is common in graduate medical education. Virtual, asynchronous learning in Emergency Medicine (EM) allows residents to participate over time while accommodating variable shift schedules. Slack is a channel-based messaging application used in many industries to facilitate communication. EM programs have used Slack for recruitment and departmental communication. However, little is known about the use of Slack as an educational tool.

### **Objective:**

We prospectively evaluated the feasibility and utility of Slack as an e-learning platform for case-based learning (CBL) for three cohorts of PGY-1 EM residents over three years.

### **Design/Methods:**

Clinical case vignettes for common EM chief complaints were written by a senior resident and reviewed by two EM board-certified faculty for content. Cases consisted of a series of prompts and residents progressed through cases by asking questions about the patient and requesting diagnostic studies. Additional prompts were provided to discuss clinical controversies in diagnosis and management. Slack was chosen as the platform due to free cost, ease of uploading multimedia, and the ability for anonymous participation. Cases were discussed as a group, one at a time, asynchronously, without dedicated participation time. Each cohort participated in this CBL for the first month of internship as part of orientation to residency. At the end of the month, a survey was distributed to all interns. This survey included questions regarding tool usability in addition to evaluation of participants' perceived effectiveness of this learning tool for their education.

### **Results:**

Over three years of data collection, forty-one interns (80.4%) completed the survey. Of the responders, sixty-three percent indicated they would continue to utilize Slack cases if available, and fifty-eight percent reported Slack was a valuable learning tool. The first-year pilot of these Slack cases showed above-average usability with a mean SUS score of 77.2. Through qualitative feedback, authors noted enthusiasm for longitudinal CBL via Slack throughout residency, particularly regarding difficult or interesting cases. One participant even suggested Slack cases as a format for discussion of monthly M&M cases. Among frequent suggestions for improvement were designating regular dates and time intervals for discussion.

### **Conclusion:**

These data indicate Slack is a feasible platform for asynchronous CBL and may cater to diverse learning styles and time constraints for incoming EM interns.

### **Impact:**

We believe that this asynchronous CBL format can be used as a flexible addition to residency education and this modality has further potential for education innovation.

## Underage Alcohol Intoxication in the Emergency Department

*Kristopher Gaier, MD, Nicholas Billow, MD, Darien Cohen, MD, Shu B. Chan, MD, FACEP\**

### Background:

Underage drinking is a common problem. In 2019, 24.6% of 14–15-year-olds reported having at least one drink. Alcohol intoxication can lead to a wide variety of problems such as death, injuries, physical and sexual assault and increased risk of using other substances. Care of acute intoxication accounts for numerous hours in the ED.

### Objective:

Determine clinical presentation, past medical history, and social support for patients between age 13 and 21 in the ED with acute alcohol intoxication. Compare between pre-COVID-19 years and during COVID-19.

### Design/Methods:

Retrospective chart review over 4 years, 2018, 2019 (pre-COVID) and 2020, 2021 (COVID) at 4 urban ED sites. Included are all patients under 21 who presented to the ED and discharged from the ED with a diagnosis of alcohol intoxication. Excluded are patients with alcohol withdrawal, suicidal complaints, or trauma. Data abstracted included demographics, past medical history, live with parents, EMS/police involved, where picked up, who discharge with, and initial alcohol levels if done. Significance tested with Student-t or Chi-squared tests as appropriate, alpha set at 0.05. A priori analysis suggested a sample size of 500 would have 80% power to detect at least 15% difference between comparison groups.

### Results:

There were 481 cases. The mean age was 18.4 (range 13-20). 89.8% arrived by ambulance with 11.8% accompanied by police. 30.6% were picked up from a friend's home, 19.5% at a public space, and 12.7% from own home. Only 4.4% were picked up from a concert, while 22.2% were picked up at school or campus. 38.9% lived with their parents. There were 120 (25.0%) cases with a behavioral history, including 83 (17.3%) depression, 36 (7.5%) ADHD, and 27 (5.6%) bipolar disorder. Blood alcohol levels were done on 143 (29.7%) with mean level of 225 mg% (SD:68.5). The mean ED length of stay was 264 hours (SD:207). There were 302 cases during 2018 and 2019 pre-Covid and 179 cases during Covid 2020 and 2021. During COVID, there were significantly less arrivals by EMS (92.7% versus 84.9%;  $p=0.006$ ) and less picked up at school (27.6% versus 14.0%;  $p<0.001$ ).

### Conclusion:

90% of cases were brought in by EMS with 25% having a past history of behavioral issues. Only 38.9% lived with parents while 22.2% were picked up at school. During the COVID years, there were significantly less arrivals by EMS and from school.

### Impact:

This study highlights the need to consider more intervention at the school/college level.

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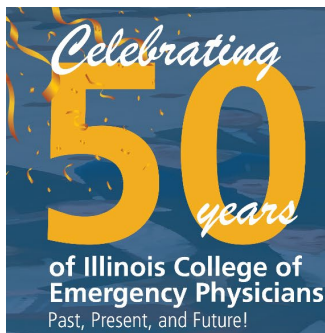
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**Table 1**

	Total	Pre-Covid	Covid	p-value
n	481	302	179	
Age	18.4	18.5	18.2	0.055
Gender (% F)	49.1%	56.0%	37.4%	<0.001
Live with Parents	38.9%	41.1%	35.2%	0.255
Behavior history	24.9%	23.2%	27.9%	0.244
Arrived from School	22.2%	27.6%	14.0%	<0.001
Arrived by Ambulance	89.8%	92.7%	84.9%	0.006
Accompany by Police	11.9%	11.9%	11.7%	0.951
Alcohol Level (n)	225 mg% (143)	223 mg% (87)	229 mg% (56)	0.590
Discharged with Parents	37.4%	36.4%	39.1%	0.557
ED LOS hours (SD)	264 (207)	245 (195)	296 (222)	0.010





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## May 25th, 2023

### Northwestern Memorial Hospital, Chicago, IL

## Combat Medical Readiness: The Rush University Medical Center Advanced Trauma Training Program

*Nicholas Cozzi, MD, MBA\*, Louis Hondros, DO, Vinootna Sompalli, MD, Haley Plattner, MD, Hans Murica, MD, Crystal Lafleur, DO, Sophia Redpath, BS, William Mati, BS, Candice Lee, BS, Prakriti Mehta, BS, Corey Goldstein, MD, Amy Marks, MD, Dave Leckrone, Jerome Martin, MD, Kevin Johnson, Pam Manning, Jessen Schiebout, MD, Sophia Bodnar, DO  
Brian Dugal, MD, Marilyn Hallock, MD, FACEP, Edward Ward, MD, FACEP, Yanina Purim Shem-Tov, MD, MS, FACEP*

### Background:

Combat medical training is essential for U.S. Military Medical Service Members from both the Active and Reserve Components as it increases combat casualty survival while decreasing morbidity. Rush University Medical Center provides U.S. National Guard Service Members the Advanced Trauma Training Program (ATTP), a one-week training centered on trauma care delivery, procedural competency, and military resiliency combating post-traumatic stress disorder (PTSD).

### Objective:

The primary outcome of this work was characterizing course graduate feedback and identifying self-reported belief of medical readiness.

### Design/Methods:

ATTP graduates from 2010-2022 electronically completed a self-administered, anonymous survey. Specific feedback was obtained on the program's content, instructor impact, and level of combat medical preparedness. Permission was obtained from all participants to use survey data for research purposes.

### Results:

Over the program's ten-year history, Rush has trained 876 U.S. National Guard Members with 61.1% being male. The prominent medical backgrounds are EMT-B (40.1%) followed by RN (27.3%), PA (19.6%), and MD/DO (6.9%). Among course graduates, 49.2% had never been deployed and of those previously deployed, 95.6% rated ATTP as important to their combat medical experience. The average number of deployments per class was 9.75. In terms of deployment preparation, students rated the course as important to both personal (93.2%) and unit (97.0%) preparedness with a 98.5% likelihood to recommend. Students remarked the live-tissue and cadaver lab as extremely important (84.4%) while noting a post-deployment PTSD lecture as important (95.9%).

### Conclusion:

The Rush University Medical Center Advanced Trauma Training Program began as a targeted intervention to medically prepare U.S. Military Medical Service Members. These results suggest graduates believe this training is positively impacting their combat medical readiness and resilience. Further investigation with course graduates that were subsequently deployed to combat is imperative and ongoing.

### Impact:

An urban medical center striving to prepare our nation's military members for combat medical readiness.

## Simulating Empathy: An Intern Boot Camp Approach to Patient Experience

*Anna Culhane, MD\*, Zachary Huston, Jerome Martin, MD, Sara Hock, MD, FACEP*

### **Background:**

Patient satisfaction and patient experience scores are becoming increasingly important in Emergency Department care. Several studies have shown that patients' satisfaction with physician interactions improves when the provider shows empathy for their condition. Multiple simulation models have been used to teach residents patient communication and empathy skills, including didactic components with lectures and standardized patient experiences.

### **Objective:**

The goal of this study is to evaluate whether senior residents can improve their communication skills when an intern is acting as their patient, while at the same time increasing the interns' empathy for the patients' experiences while in the Emergency Department.

### **Design/Methods:**

A total of 25 residents participated in the study. Prior to the cases, participants filled out the Toronto Empathy Questionnaire (TEQ). They then went through three simulated cases, with the 11 interns portraying the patients and the 14 seniors acting as the physicians. Following the cases, the residents underwent a structured debrief. At the conclusion of the session participants again filled out the TEQ and answered a Likert questionnaire on their thoughts about the utility of this type of simulation.

### **Results:**

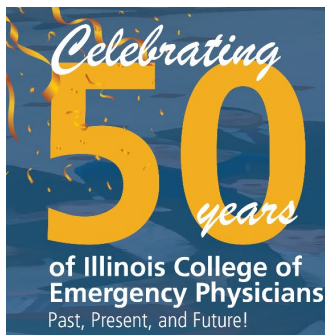
Twenty-two Residents completed both the pre and post TEQ, the numerical values of which range from 0-64. The mean scores pre and post cases for all residents were 46.2 (SD 4.64) and 47.9 (SD 6.03),  $P$ -value = 0.29. The intern subgroup scores were 47.45 (SD 4.18) pre and 49.89 (SD 5.62) post,  $p$  = 0.28. The senior subgroup scores were 45.28 (SD 4.92) pre and 46.53 (SD 6.14) post,  $p$  = 0.56. On a five-point Likert survey related to the simulated cases, respondents rated the realism of the cases 4.23 (SD 0.63), their comfort providing feedback to their peers 4.41 (SD 0.95) and gaining insight into the patient experience 4.27 (SD 0.83).

### **Conclusion:**

The embedded intern exercise was rated well by participants, and residents demonstrated a trend towards increased empathy following participation. Residents accepted this style of simulation and found it realistic. They also felt comfortable providing feedback to their peers in different roles and felt they gained insight into the patients' experiences in this style of simulation.

### **Impact:**

This study demonstrated a novel method for teaching resident learners through simulation by focusing on both empathy and patient communication. Although this was a small single center study it was rated positively by the residents and acts as a template for future simulation curriculums.



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## May 25th, 2023

### Northwestern Memorial Hospital, Chicago, IL

## 72-Hour ED Return Rate in Non-Burned Out vs. Burned Out Emergency Department Physicians

*April Brill, DO\*, Michael Siap, DO, Iris Lawson-Seebaran, OMS-3*

### **Background:**

Burnout is a growing concern among healthcare workers. It is defined as a syndrome of depersonalization, emotional exhaustion, and reduced sense of personal accomplishment. The most recent Medscape survey lists Emergency Medicine (EM) physician burnout at 43%. Burnout is associated with medical errors, decreased productivity, drug and alcohol abuse, increased turnover in the workplace, and self-reported medical errors.

### **Objective:**

The objective of this study is to determine if there is a significant difference in 72-hour Emergency Department (ED) return rates between burned out and non-burned-out EM physicians.

### **Design/Methods:**

In this cross-sectional study burnout was measured at four community ED's utilizing the Maslach Burnout Inventory (MBI) via a survey completed by attending EM physicians in March 2020. We also examined 72-hour return data for the physicians who participated in the study from April to August 2020. The number of 72-hour returns excludes patients who were seen in the ED and were admitted or transferred to another facility. This number also exclude patient encounters involving psychiatric, drug, or alcohol related complaints.

### **Results:**

We included 20 responses out of a possible 44 physicians (45%). 50% of the EM physicians who were surveyed had evidence of high levels of burnout. The 72-hour ED return rate for the low/moderate risk group was 1.94%, and the 72-hour ED return rate for the high-risk group was 1.51% ( $p=0.23$ ).

### **Conclusion:**

Our study did not demonstrate a significant difference between burned out physicians and those who are non-burned out.

### **Impact:**

Emergency Medicine remains one of the fields with the highest percentage of physicians suffering burnout. While our study did not demonstrate a significant difference between the groups, our study encompasses only a small number of physicians. A repeated study with a larger sampling of physicians is needed.



## Does Trauma Informed Care and Debriefing Help Emergency Medicine Residents Process Secondary Traumatic Stress?

*Donna Okoli, MD, Thaer Ahmad, MD, Cindy Ndiya, MPH, Oyinkansola Okubanjo, MD\**

### Background:

Trauma Informed Care is a holistic framework that seeks to realize and recognize the signs, symptoms, and impacts that trauma has not only on the patient but all members of the care team. In addition, trauma informed care seeks to respond to trauma by implementing trauma informed care practices and resisting re-traumatization of our patients in our interactions with them. Specifically, there are tenants of this framework that can be applied to healthcare providers themselves rather than just patients <sup>(2)</sup>.

Secondary traumatic stress is a phenomenon that is described as stress from helping or wanting to help a traumatized person. It has more recently been described as a post-traumatic stress with symptoms similar to PTSD <sup>(1)</sup>. More importantly, secondary traumatic stress has been linked to burnout and affects physicians being able to deliver effective care. Studies have shown that resident physicians feel unprepared for dealing with the emotional impacts of dealing with patient deaths, with successful implementation of a formal debriefing process<sup>(4)</sup>. In addition, other studies have shown that resident physicians might be more susceptible to burnout compared to other staff <sup>(5)</sup>. However, there are limited studies replicating implementation of education around debriefing in EM residents.

### Objective:

- Use the principles of trauma informed care to help residents identify secondary trauma
- Address effective coping mechanisms and communication skills to manage secondary trauma, specifically the skill of debriefing
- Determine resident receptiveness to this type of training

### Design/Methods:

Anonymous voluntary survey, delivered in two parts as a pre and post survey after the delivery of a 4-part curriculum from 11/2022 to 02/2023. 42 residents were surveyed. Study endpoints will consist of statistical comparative tests of the EM residents' responses for the pre- and post- evaluation surveys items to detect self-reported value and impact of the evaluations.

### Results:

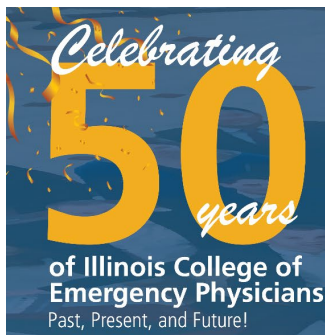
Residents will have completed the curriculum in February 2023. 31 of 42 residents responded to the pre-curriculum survey. 87% of respondents reported that trauma informed care was an important aspect of residency education, while only 61% reported that they understood the core principle of trauma informed care. 54% of residents felt that they were able to identify the symptoms of secondary traumatic stress in themselves, but only 48% of residents could identify those symptoms in their colleagues. While 97% of residents think it's important to debrief after a difficult case, only 41% of residents felt that they had the skills to effectively debrief after a difficult case and only 6% report that they make time to debrief after a difficult case. The effectiveness of the curriculum will be determined once it has been completed in February 2023 and the results of the post survey have been analyzed.

### Conclusion:

Residents received education on the core principles of trauma informed care, secondary traumatic stress, and effective debriefing. Preliminary data indicates that this education is important in residency education. The impact of this curriculum is to be determined based off of the results of the post curriculum survey, however, we anticipate significant increases in residents' knowledge and skills in the areas studied

### Impact:

Residents are consistently exposed to traumatic events while in training. We think it is imperative that residency training includes preparation in managing secondary traumatic stress. Curriculum around surrounding debriefing can and should be integrated into residency training curriculum.



# The Ginny Kennedy Palys Annual Symposium

## May 25th, 2023

### Northwestern Memorial Hospital, Chicago, IL

## A Prospective Observational Analysis of the Use of Resuscitative Transesophageal Echocardiography in the Emergency Department and Intensive Care Unit

*Kelsey Kennedy, MD, Pedro Salinas, MD, Matthew Tyler, MD, Michael J. Lambert, MD, Jordan Rosenberg, DO, Maria L. Eberle, MD, Nicole Glowacki, MPH, Ken Dodd, MD, Katharine M. Burns, MD\**

### Background:

Transesophageal echocardiography (TEE) is an emerging modality used in resuscitation of cardiac arrest, respiratory failure, and shock. TEE can evaluate the various pathologies leading to these presentations and may guide management decisions, with the potential to improve patient outcomes.

### Objective:

The primary objective is to evaluate the usage pattern of resuscitative TEE across a health system following initiation of a prospective, observational registry. Secondary objectives include exam findings, patient safety, management changes, and patient outcomes.

### Design/Methods:

Data was collected from a prospective, observational, multi-center registry enrolling patients from three hospitals within the same health system who had TEE performed as part of resuscitation efforts for cardiac arrest, respiratory failure, or shock. Data from March 2022 through October 2022 included: location (ED vs ICU), patient presentation, indication for the exam, TEE views obtained, exam findings, changes in clinical management, adverse events related to TEE, and patient outcomes. Statistics are descriptive.

### Results:

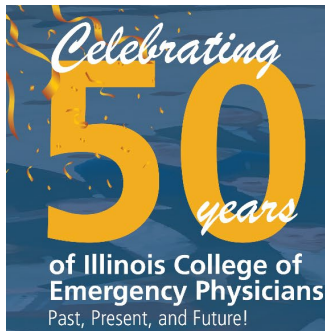
27 patients were included in the analysis. 10 (37%) exams were performed in the ED, 2 (7%) on the hospital floors, and 15 (56%) in the ICU. Presentations for these 27 patients included shock (6, 22%), respiratory failure (6, 22%), and cardiac arrest (15, 56%), including both out-of-hospital (8, 53%) and in-hospital arrests (7, 47%). Indications for the exam included intra-arrest evaluations (10, 37%), post-arrest evaluations (5, 19%), initial evaluation of undifferentiated shock or acute hypotension (6, 22%), hemodynamic monitoring in a critically ill patient (5, 19%), and procedural guidance (1, 3%). Findings on TEE exam are listed in Table 1. A change in medical management due to TEE findings occurred in 14 (52%) of the exams. Out of 27 patients, 5 (19%) expired in the ED with 3 (11%) surviving to ICU admission from the ED. 9 (33%) patients ultimately expired in the ICU and hospital ward, and 4 (15%) survived discharge from the ICU. As of the writing of this abstract, final outcomes were not available or uncertain for 6 (22%) patients. There were no adverse events related to TEE.

### Conclusion:

Resuscitative TEE can provide diagnostic information for critically ill patients in both ED and ICU settings. In this study, the most common indication was cardiac arrest. Further research is needed to evaluate how often these findings may lead to changes in clinical management.

### Impact:

TEE can be used in the ED and ICU to guide resuscitation and management of critically ill patients.



# The Ginny Kennedy Palys Annual Symposium

## May 25th, 2023

### Northwestern Memorial Hospital, Chicago, IL

## Peritonsillar Abscess, Group A Streptococcus, and Epstein Barr Virus in the Adult ED Population

Casey Collier, MD, FACEP\*, Thomas Stolz, MD, Shu B Chan, MD, FACEP

### Background:

Although peritonsillar abscess is more common in adolescents, it is also seen in patients of all ages. The estimated incidence is 1 in 10,000. Prior studies have shown that peritonsillar abscess are associated with polymicrobial organisms, both aerobic and anaerobic with Group A streptococcus (GAS) being the most frequent pathogen cultured. The association of peritonsillar abscess with GAS has been reported as between 18% to 36%. However, these are all reported from overseas medical sites. The incidence of GAS with peritonsillar abscess has not been well studied in the adult population in the United States. Peritonsillar abscess has also been associated with acute infective mononucleosis, but the incidence has been reported as very low with one overseas estimate of 1.6%.

### Objective:

The primary objectives are to determine the incidence of GAS and Epstein-Barr viral infection in adults presenting to the ED with peritonsillar abscess.

### Design/Methods:

Retrospective electronic medical records chart review over 4 years at 4 urban ED sites. Included are all patients 18 and over presenting to the ED with sore throat or oral swelling and had a CT of the soft tissue of the neck done. Excluded are patients whom the CT scan was not diagnostic of peri-tonsillar abscess. Descriptive statistics are presented along with incidences. A priori power analysis suggested a sample size of 200 would give 6.9% margin of error.

### Results:

Between 2018 and 2021, there were 197 cases of CT confirmed peritonsillar abscesses with mean age 33.5 (SD: 13.3) and 31.9% females. 90 patients (45.7%) had a surface strep culture done with 27.8% of those positive. There were five additional positive GAS found on 19 abscess cultures for total GAS of 27.5%. Only 39 patients (19.8%) were tested for Epstein Barr infection with 2/39 (5.1%) positive. The majority of abscess cultures were mixed aerobic/anaerobic bacteria (52.6%).

### Conclusion:

In this small study, the incidence of Group A Streptococcus was 27.5%, exactly in the middle of the range previously reported outside the USA. The incidence of Epstein-Barr virus was confirmed to be very low.

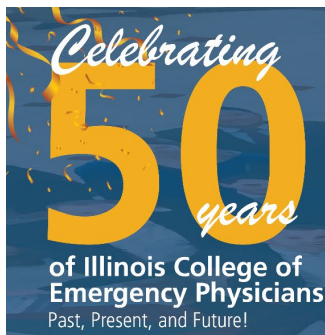
### Impact:

Although the majority of peritonsillar abscesses are polymicrobial, Group A Streptococcus is found in over 25% of cases and should be covered in all peritonsillar treatment regimens.

### Results of Abscess Cultures

Abscess culture	
Not done	176/190 (92.6%)
GAS	6/19 (31.6%)
Mixed aerobic/anaerobic	10/19 (52.6%)
Streptococcus C	1 /19 (5.3%)
No growth	2/19 (10.5%)





# The Ginny Kennedy Palys Annual Symposium

## May 25th, 2023

### Northwestern Memorial Hospital, Chicago, IL

## Care of the Detainee in the Emergency Department Utilizing Simulation

*Dhara P. Amin, MD, MS\*, Alison Vasa, MD, John Elue, MD, Ashlea Winfield, MD, MS*

### **Background:**

Incarcerated patients represent a vulnerable population known to have an elevated burden of chronic disease and lower socioeconomic status. Mass incarceration in the United States leads to 10.9 million people passing through its jails, 6.7 million under correctional supervision, and 650,000 people returning to the community yearly. The legal right to healthcare for incarcerated patients was established in 1976 but equitable treatment by clinicians demands greater attention. Emergency medicine (EM) resident education has a persistent and notable gap in understanding health care for persons impacted by incarceration.

### **Objective:**

This simulated case aimed to improve knowledge of EM interns on the baseline healthcare disparities faced and basic rights held by detained patients; focusing particularly on empowering learners to intervene when witnessing bias and discrimination toward this population.

### **Design/Methods:**

The simulation was created as a part of EM intern orientation at a large county hospital that serves as the primary healthcare facility for a substantial detainee population. The scenario was created by a simulation trained EM physician and reviewed by an EM physician with expertise in caring for detainees. Seventeen learners were split into groups of four and assigned a 30-minute time slot to complete the case and a debriefing session. Learners completed an anonymous pre and postintervention survey to assess knowledge.

The case utilized the following simulated roles: a patient, three law enforcement officers, and a nurse. To increase fidelity the patient wore handcuffs. Law enforcement officers were given badges and wore dark clothing.

### **Results:**

All participants continued an appropriate evaluation of the patient despite bias being introduced by officers. It was noted, however, that multiple inappropriate comments and discriminatory behaviors were tolerated by residents prior to appropriate intervention.

Facilitators noted significant disagreement among participants regarding two scenarios: 1. whether the patient could leave against medical advice and 2. if law enforcement could be removed from the exam room.

### **Conclusion:**

There is a paucity of formal education on caring for incarcerated patients in EM residency training. This study is the first to describe simulation-based education to teach emergency medicine residents appropriate care for detainees with a specific focus on managing difficult interactions with staff and law enforcement. These results demonstrate improved resident knowledge after a single intervention, which was retained in a six-month post survey.

### **Impact:**

Simulation-based education should be used as a tool to inform and educate physicians about vulnerable patient populations in hopes of improving disparate ED care.