Background: Performance on the American Board of Emergency Medicine (ABEM) annual In-training Examination (ITE) for Emergency Medicine (EM) residents has been shown to correlate with subsequent performance on the ABEM qualifying exam. As such, significant planning is often committed to ITE preparation, both from an individual resident and a residency program perspective. Online question banks (QBanks) represent a popular media for ITE preparation however, the specific impact of QBanks on ITE performance is unclear.

Methods: ITE and QBank performance results were collated over two academic years, 2018-19 and 2019-20, from a three-year EM residency program. ITE raw scores and percentile rank for training level scores were compared with performance on a QBank provided for independent resident study, including QBank average performance score as well as number of QBank questions completed. The Pearson correlation coefficient was used to measure the strength of a linear association between ITE performance and QBank correlates.

Results: Sixty-two sets (30 residents in 2018-19, 32 residents in 2019-20) of ITE performance data and QBank correlates were included. The mean number of QBank questions completed was 1155 with a standard deviation of 768. Raw ITE scores and number of QBank questions completed were found to have a significant, positive correlation, $r(60) = .34$ ($p < .05$). Likewise, ITE percentile rank for training level scores were also found to have a significant, positive correlation with number of QBank questions completed, $r(60) = .35$ ($p < .05$) (Figure 1). ITE percentile rank for training level correlated positively with QBank average performance, albeit weakly, and was not found to be significant ($p = .16$).

Conclusion: Participation in a QBank, quantified specifically by number of QBank questions completed, is associated with improved resident performance on the ITE. Incorporation of QBank self-study may be an effective mode of ITE preparation.

21 Educational Model for Corneal Foreign Body Removal in Emergency Medicine Residency

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Learning Objectives: The objective of this study is to evaluate the efficacy of a low fidelity educational model used for teaching corneal foreign body removal to EM students and residents by using a survey to assess the comfort levels of participants before and after a corneal foreign body skills lab.

Background: Corneal foreign body (CFB) removal is a difficult and highly skilled intervention required of EM physicians. When CFBs are not properly removed, patients are at risk for complications including infection, ulceration, and vision loss. Only 0.19% of ED visits are related to ocular foreign bodies, thus this important skill can be missed during EM training.

Objectives: To evaluate the efficacy of an educational model used for teaching CFB removal by using a survey to assess the comfort levels of participants before and after a CFB removal skill lab.

Methods: This was a prospective study on an educational model for teaching CFB removal using a survey to assess pre- and post-skill lab comfort with CFB removal by medical students and PGY1-3 EM residents. The study included one 2-hour skill session at an ACGME-accredited EM residency at a Level 1 Trauma Center. The study evaluated the comfort levels based on year of education and whether or not participants had previous experience removing CFBs. Participants ranked their overall comfort of removing CFBs on a scale of 1 to 10 before and after the skills lab. Analysis was completed using Wilcoxon signed-rank test on SPSS.

All participants (N=22) showed an increase in comfort level with CFB removal from 3.81 to 7.09 ($p < 0.00001$). Those with no experience in CFB removal gained a statistically greater benefit than those with experience (p 0.0003 vs. 0.068). Medical students showed an increase in comfort levels from 1.6 to 4.6, which was not statistically significant (p 0.066). PGY1 increased from 3.22 to 5.55 (p 0.027), PGY2 increased from 2.14 to 6.4 (p 0.042), and PGY3 increased from 4.57 to 7.28 (p 0.02).

This educational model for CFB removal showed benefit across all levels of medical education. The greatest improvement in comfort levels was seen in those who had less experience in CFB removal and resident physicians. This suggests utility for CFB removal skill labs earlier in EM residency training.

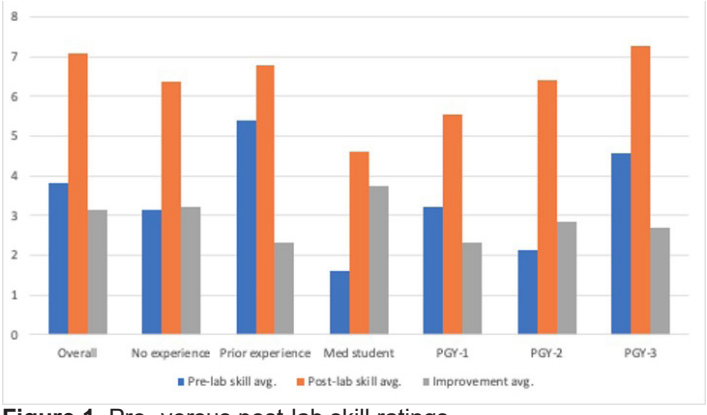

Figure 1. Pre- versus post-lab skill ratings.

	Participants (N)	Pre-lab skill avg.	Post-lab skill avg.	Improvement avg.	Wilcoxon p-value	Wilcoxon Z-value
Overall	22	3.81	7.09	3.13	<.00001	-4.0145
No experience	17	3.16	6.38	3.22	0.0003	-3.6214
Prior experience	5	5.4	6.8	2.33	0.068	-1.826
Med student	4	1.6	4.6	3.75	0.066	-1.841
PGY-1	7	3.22	5.55	2.33	0.027	-2.214
PGY-2	5	2.14	6.4	2.83	0.042	-2.032

Figure 1.

as described more fully in Table 2. Residents reported the educational value from patient follow-ups stems from reviewing inpatient medical management, reviewing patient outcomes, error notification, and confirming appropriate management. All relate to the goal of improving medical management in the ED. The current system's strengths were described as: easy to use, encourages follow-ups, ACGME compliance, and no strengths exist. To improve the current curriculum, participants recommend decreasing the administrative burden, incorporation of the electronic health record, and automatic notifications for bouncebacks, unexpected patient outcomes, and medical errors (Table 2).

22 Educational Value of Patient Follow-ups and a Patient Follow-up Curriculum

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Learning Objectives: - Understand that no standard curriculum exists to satisfy the ACGME and RRC requirement for patient across US EM residency programs.

- Residents greatly value patient follow-ups.

- Residents rated a curriculum involving logging patient name and outcome less valuable overall.

Background: The Accreditation Council for Graduate Medical Education (ACGME) and Residency Review Committee (RRC) require Emergency Medicine (EM) residents to perform patient follow-ups as a component of the core competency, Practice Based Learning and Improvement. While programs satisfy this requirement differently, limited data exists for specific follow-up curricula or best practices.

Objectives: To perform an evaluation of the patient follow-up curricula at our institution.

Methods: EM residents completed an online, mixed methods survey consisting of both likert scaled and free response items. We used descriptive statistics for items with discrete answer choices. Two independent analysts performed a qualitative thematic analysis of the free response data. Discrepancies were resolved through in-depth discussion and negotiated consensus.

Results: 42/60 (72.4%) residents completed the survey. Residents rated the educational importance of follow-ups highly (66.6% extremely or very important) and valued the current curriculum less highly (19.1% extremely or very important). (Table 1) The thematic analysis revealed the following major themes across the educational benefit of follow-ups, strengths of the current curriculum, and suggestions for improvement of the current curriculum

Table 1. Follow-up importance versus value of current curriculum.

	Extremely	Very	Moderately	Slightly	Minimally	Not at all	Total
How important is follow-up on patients to your learning?	9 (21.4%)	19 (45.2%)	11 (26.2%)	2 (4.8%)	0 (0.0%)	1 (2.4%)	42 (100%)
How would you rate the value of the current follow-up system to your education?	2 (4.8%)	6 (14.3%)	9 (21.4%)	11 (26.2%)	7 (16.7%)	7 (16.7%)	42 (100%)

Table 2. Major themes form qualitative analysis.

Question	Major Themes	Exemplar Quotes
1. Do you think there is a benefit to patient follow-ups? Why or why not?	Improved Medical Management From Poor Outcomes	- To learn about what could be improved and what happened to the patient. What I might have overlooked - Learning what you did right and wrong and learning how you can do things even better by anticipating what will happen during the patient's admission or seeing why they bounced back
	Reviewing Outcome	- What we do is for good outcomes. Without knowing outcomes how do you know what you are doing is good?
	Confirm Management Appropriate	- I think they're vital to knowing whether our ED management was appropriate - The confirmation of a diagnosis or outcome of a procedure have always been pretty helpful.
	Reviewing Inpatient Next Steps	- Allows you to learn what next steps of management are for your patients
2. What do you think the strengths of the current follow-up system is?	ACGME Compliance	- Good to have something in place to hold us accountable
	Ease of Use	- Easy to do
	No Strengths / Benefits Exist	- Absolutely none. It's just a bureaucratic work requirement.
3. How would you improve the follow-up system to make it more meaningful to you?	Decreasing the Administrative Burden	- Logging patient follow ups is time-consuming - Reduce the documentation requirements - Automate the patient logging process. Most (if not all) of us follow up on our patients because we're interested and want to know how our patients do. Most of us don't log these follow ups because the Medhub logging process is so difficult and time consuming.
	Automatic Notification of Bounce-backs, Medical Errors, and Unexpected Outcomes	- Have an automatic way of notifying us about "bouncebacks", change in dispo after signout, upgrade in care level / significant events 24 hours after admission - Have cases with poor outcomes automatically be bounced back to you - Emails when my patients have serious complications or deaths - We should receive automatic emails if a patient we admitted becomes deceased. we should receive an automatic email if a patient we discharged bounces back. - Have it be automatic; I want an email when there is a bounce back or a bad outcome from a procedure, wtc
	Incorporation of the Electronic Health Record	- I would create a way to flag a chart/patient in the ED so that it creates a queue of patients that I can follow up on later. - I would like the EMR to flag patients who return to the ER within a week, 2 weeks, or even a month after I discharge them - Have a tab or folder automatically updated with list of patients who are admitted