

emergency care at IUH-B, a level III trauma center with 60 ED beds, in June and July 2025. Quantitative data were analyzed with descriptive statistics and chi-square testing; qualitative data underwent transcription and thematic analysis.

**Results:** Thirty-nine participants completed surveys and 40 completed interviews. Many were aware of the upcoming residency programs (59%), but only 49% correctly identified an EM resident’s training level. Most (95%) felt residents would improve care quality, access, and modernization in Bloomington. Only 5% expressed concern about resident involvement, mainly supervision. Qualitative themes (Table 1) revealed optimism about benefits such as increased staffing, shorter wait times, and improved physician retention. Participants valued a resident who is competent, personable, and attentive, while wanting adequate supervision. Prior experience or awareness of the programs did not significantly influence comfort or support ( $\chi^2=0.004$ ,  $p=0.95$ ;  $\chi^2=0.034$ ,  $p=0.85$ ). The initial round of thematic coding resulted in high inter-rater reliability with a Cohen Kappa value of 0.724 ( $p< 0.001$ ).

**Conclusions:** Community members expressed strong support for the new residency programs and confidence in future residents providing safe, supervised care. Minimal concerns centered on experience and oversight. Findings highlight the need for community education regarding residents’ roles and training as IUH-B prepares for program implementation.

Table 1. Qualitative Thematic Analysis Codebook: Themes, Categories, and Codes

Theme	Category	Code
Benefits of Residency Program	System Level	Extra Staff, Increased Providers, Reduced Wait Times, Increased Retention, Up-to-date Training
	Community Level	Economic Benefit, Community Benefit, Increased Educational Opportunities
Concerns Regarding Residents	Inexperience	Lack of Knowledge, Rushing
	Overconfidence	Arrogance, Not Asking for Help
	Supervision	Lack of Oversight, Proper Supervision
Trust (or Distrust)	Patient-Provider Communication	Honesty, Professionalism, Bedside Manner
	Clinical Demeanor	Bedside Manner, Positive Attitude, Listening Skills
Advice to Residents from a Patient Perspective	Collaboration	Learn from Staff
	Preparedness	Stay Updated, Humility, Knowledge

## 66 Backup Policies and Practices in Emergency Medicine Residencies: A National Study

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**Background:** Emergency Medicine (EM) residency programs face the challenge of developing systems to manage unexpected absences. Currently, there is no published literature describing the state of backup policies in EM.

**Objectives:** This study aims to fill that gap by examining the backup policies of ACGME-accredited EM residencies in the United States, highlighting variations and commonalities.

**Methods:** We conducted a cross-sectional survey of EM residency directors across the US. Respondents completed an electronic survey with multiple-choice and open-ended questions. Descriptive statistics were used for analysis.

**Results:** Out of 282 directors surveyed, 107 responded (37.9%). Approximately 80% of programs have a formal backup policy. Academic programs are more likely to have such policies than community-based programs (92.7% vs 54.2%). Four-year programs have a higher prevalence of formal back up policies compared to three-year programs (91.7% vs 76.3%). Smaller programs with 8 or fewer residents per post-graduate year were less likely to implement formal policies (50%).

About 54% of program directors believe their backup policy effectively meets their program needs, 34% are ambivalent, and 10% feel their policies are inadequate. For those dissatisfied or ambivalent (n=45), the key challenges include managing multiple call-outs (58%), over-use of backup (56%), and unclear distinction between excused vs unexcused absences (44%).

The predominant backup structure involves a resident on a 24-hour backup shift (55%). Conversely, 34% of programs may leave the shifts unstaffed when someone calls out.

Table 1: Program Demographics of EM Residencies (n = 104)

Variable	Category	n (104)	%
Program type	Academic	41	39.40%
	Community	24	23.10%
	County	13	12.50%
	Combination / Other	26	25.00%
U.S. division (9)	South Atlantic	23	22.10%
	Mid-Atlantic	22	21.20%
	East North Central	16	15.40%
	Pacific	13	12.50%
	West South Central	9	8.70%
	New England	9	8.70%
	West North Central	5	4.80%
	East South Central	4	3.80%
	Mountain	3	2.90%
U.S. region (4)	South	36	34.60%
	Northeast	31	29.80%
	Midwest	21	20.20%
	West	16	15.40%
Training length	3 years	80	76.90%
	4 years	24	23.10%
Residents per PGY year	8 or fewer	26	25.00%
	9--12	34	32.70%
	13--16	31	29.80%
	17--20	9	8.70%
	21 or more	4	3.80%
Total residents	Median	36	
	IQR (Q3-Q1)	17	

Table 2: Backup Systems: Policy Prevalence, Structures, Make-Up Rules and Burden-Reduction Strategies

Variable	Category	n (104)	%
<b>Formal Backup? (Q6)</b>			
Yes		83	79.80%
No		21	20.20%
<b>Backup structure (Q7)*</b>			
Resident assigned to 24-h backup		57	54.80%
Split 24-h backup (12+12 h)		2	1.90%
Resident assigned to specific site		12	11.50%
Resident assigned to specific shift		5	4.80%
Volunteer to cover without pay		15	14.40%
Residents receive financial compensation		11	10.60%
Residents receive future shift reduction		52	50.00%
Faculty covers open shift		6	5.80%
Advanced practice clinician covers open shift		6	5.80%
Shift left unstaffed if resident calls out		35	33.70%
Backup for a week (new theme)		6	5.80%
Rearrange schedule instead of calling backup (new theme from comments)		2	1.90%
<b>Make-up shift required? (Q8)</b>			
Case-by-case approval by program leadership		33	32.35%
Yes - always require make-up shift		31	30.39%
Other		22	21.57%
No - make-up shift never required		16	15.69%
<b>Burden reduction strategies (Q9)*</b>			
Evenly distribute backup shifts		60	57.70%
Provide financial compensation		9	8.70%
Make backup optional		2	1.90%
Allow residents to request specific backup days		7	6.70%
Rearrange the schedule to avoid calling backup		60	57.70%
Limit the number of activations per resident		13	12.50%
Home electives include backup coverage		34	32.70%
Required rotations include backup		45	43.30%
Other		8	7.70%

\*Survey respondents were allowed to choose more than one option, if applicable

Regarding make-up shifts, decisions may be case-by-case (32%), always required (30%), never required (15%), or follow other customized rules (21%).

**Conclusions:** This study is the first exploration of backup systems in ACGME-accredited EM residency programs in the United States, providing valuable insights into the various approaches and challenges faced by these programs.

## 67 Rapid Cycle Deliberate Practice Improves Time to Critical Actions in Trauma

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**Background:** Simulation-based trauma education is integral to developing early competence in advanced trauma life support (ATLS). Immersive simulation (IS) offers experience but provides limited opportunities for feedback and deliberate repetition. Prior research in procedural

education supports Rapid Cycle Deliberate Practice (RCDP)’s effectiveness in the acceleration of time-critical actions, but data specific to ATLS is limited.

**Objectives:** To compare the performance of fourth-year medical student trauma teams trained using RCDP versus IS, examining time to completion of key ATLS actions.

**Methods:** This prospective, randomized study was conducted at a single academic medical center. Fourth-year medical EM clerkship students participated in team-based simulated trauma resuscitations using either IS or RCDP. In a subsequent assessment case, times to completion of ATLS tasks were recorded: primary survey, hemorrhage control, intravenous (IV) access, blood/fluid transfusion, FAST, Chest/pelvis x-ray, secondary survey, trauma consultation, pelvic binder application, tranexamic acid (TXA), and chest decompression. Mean times for each task were compared between groups using the Mann–Whitney U test.

**Results:** Ten team simulations were analyzed (Immersive = 5; RCDP = 5). Mean completion times (seconds) for RCDP versus IS were as follows: Primary survey (36.5 vs 56.4; p = 0.14), Hemorrhage control(121.3 vs 159.6; p = 0.72), IV access (39.5 vs 92.9; p = 0.14), Blood/fluid transfusion(51.0 vs 102.8; p = 0.18), FAST exam (114.8 vs 146.7; p = 0.56), Chest/pelvis x-ray(119.8 vs 121.4; p = 1.0), Secondary survey(189.5 vs 138.8; p = 0.063), Trauma consultation(229.3 vs 316.3; p = 0.19), Pelvic binder(162.5 vs 188.5; p = 0.62), TXA(144.7 vs 220.5; p = 0.80), Chest decompression(37.8 vs 152.3; p = 0.016).

RCDP teams demonstrated faster mean performance across nearly all domains, with chest decompression achieving statistical significance and IV access and transfusion trending toward significance.

**Conclusions:** RCDP simulation yielded faster execution of ATLS tasks compared with IS, reaching significance for chest decompression and near-significance for IV access and transfusion. Despite a limited number of simulations, the trend across tasks suggests meaningful educational benefit, meriting further study.

