



EPA Annotated Bibliography

General Surgery



1. Albright JB, Meier AM, Ruangvoravat L, VanderMeer TJ. **Association Between Entrustable Professional Activities and Milestones Evaluations: Real-time Assessments Correlate With Semiannual Reviews.** *J Surg Ed Nov-Dec 2020* e220-8

Significant correlations between EPAs for cholecystectomy and associated milestones evaluation scores. These findings indicate that EPAs may provide more timely and specific feedback than existing tools and, on aggregate, may improve upon existing formative feedback practices provided through the biannual evaluation of surgical residents.

2. Kearse LE, Schmiederer, Anderson TN, Dent DL, Payne DH, Korndorffer JR. **American Board of Surgery Entrustable Professional Activities (EPAs): Assessing Graduating Residents' Perception of Preoperative Entrustment.** *J Surg Educ 2021 Nov-Dec;78(6):e183-e188. doi: 10.1016/j.jsurg.2021.09.004. Epub 2021 Oct 1.*

Based on self-report from a post-ABSITE survey, the majority of PGY-5 residents are achieving appropriate levels of entrustment in evaluation and management. They report complete entrustment for operative management of inguinal hernias and management of trauma. This provides content validity for EPAs in assessing levels of entrustment in PGY-5 residents.

3. Brazelle M, Zmijewski P, McLeod C, Corey B, Porterfield JR, Lindeman B. **Concurrent Validity Evidence for Entrustable Professional Activities in General Surgery Residents.** *JACS 234:938-46, 2022.*

EPA entrustment ratings were lower for operative compared to nonoperative phases. They were also lower for more junior residents and more complex cases. EPA entrustment ratings were also correlated with ACGME Milestones.

4. Padilla EP, Stahl CC, Jung SA, Rosser AA, Schwartz PB, Aiken T, Acher AW, Abbott DE, Greenberg JA, Minter RM. **Gender Differences in Entrustable Professional Activity Evaluations of General Surgery Residents.** *Ann Surg.* 2022 Feb 1;275(2):222-229. doi: 10.1097/SLA.0000000000004905

Faculty assessments showed no difference in EPA levels between male and female residents. Female residents rate themselves lower by nearly an entire post graduate year (PGY) level compared to male residents. Latent dirichlet allocation-identified topics suggest this difference in self-assessment is related to differences in perception of autonomy.

5. Brasel KJ, Lindeman B, Jones A, Sarosi GA, Minter R, Klingensmith ME, Whiting J, Borgstrom D, Buyske J, Mellinger JD. **Implementation of Entrustable Professional Activities in General Surgery: Results of a National Pilot Study.** Presented at ASA, 2023. *Ann Surg* 2023 Oct 1;278(4):578-586. doi: 10.1097/SLA.0000000000005991.

Data from the initial pilot study of EPAs in general surgery provide evidence that widespread implementation of EPAs across general surgery programs is possible, but variable. They provide meaningful data that graduating chief residents are entrusted by their faculty to perform without supervision for several common general surgical procedures and highlight areas to target for the successful widespread implementation of EPAs.

6. Montgomery K, Mellinger J, Jones A, McLeod CM, Zmijewski P, Sarosi G, Brasel, KJ, Klingensmith ME, Minter R, Buyske J, Lindeman B. **Validity of Entrustable Professional Activities in a National Sample of General Surgery Residency Programs** *Journal of the American College of Surgeons* 238(4):p 376-384, April 2024. | doi: 10.1097/XCS.0000000000000967

Moderate-to-strong positive correlation was noted between EPAs and patient care, medical knowledge, and communication Milestones. These findings support the validity of EPAs in general surgery and suggest that EPA assessments can be used to inform Milestone ratings by clinical competency committees.

7. Williams-Karnesky RL, White E, Homstrom A, Garcia N, Johnson J, Cook M, Nickel B, Sarosi G, Buyske J, Mellinger J, Greenberg J. **Faculty and Resident Perspectives on the Implementation of Entrustable Professional Activities in General Surgery Residency.** *J Surg Ed* 81(6):841-9, 2024.

Implementation of EPAs requires effort and engagement from all levels including both trainees and faculty. Faculty and resident development is key to successful implementation.

8. Chang C, Jesneck J, Lee E, Brasel K, Cook M, Seshadri R, Nitzkorski J, Rhee R, Shelton J, Thanawala R. **EHR-Driven Delivery of EPA Assessments Significantly Improves Participation.** *J Surg Ed* 81(11) A12-A22, 2024.

EHR-driven delivery of EPA microassessments leads to a 4.6-fold increase in EPA completion.

9. Montgomery K, Mellinger J, McLeod CM, Jones A, Zmijewski P, Sarosi G, Brasel, KJ, Klingensmith ME, Minter R, Buyske J, Lindeman B. **Decision-Making Confidence of Clinical Competency Committees for Entrustable Professional Activities** *JAMA Surg* 2024 Jul 1;159(7):801-808. doi: 10.1001/jamasurg.2024.0809.

CCC confidence in EPA summative entrustment decisions increased as the number of EPA microassessments increased, and CCCs endorsed moderate to high confidence in most entrustment decisions. These findings provide early validity evidence for this novel assessment framework and may inform program practices as EPAs are implemented nationally.

10. Jones-Carr ME, McLeod C, Baker S, Lindeman B. **Framing Our Expectations: Variability in Entrustable Professional Activity Assessments.** *J Surg Ed* 81(10): 1355-61, 2024.

Trainees and attending surgeons were able to identify various levels of entrustment presented on a video platform. This provides evidence supporting the need for frequent observations and the utility of a video platform.

11. Brasel KJ, Scott-Smith C, Barry C, Lindeman B, Sarosi G, Minter R, Jones A, Mellinger J, Buyske J. **Experience With EPAs During the Year of Progressive Engagement.** Presented at: APDS 2025. *J Surg Ed* 2025 Dec;82(12):103713. doi: 10.1016/j.jsurg.2025.103713.

134,894 microassessments were submitted from 349 programs across all platforms. 55,445 microassessments were completed by faculty and 58,861 by residents. Microassessments were not equally distributed across all EPAs, with severe pancreatitis having the least and gallbladder having the most. Mean entrustment level for the formative microassessments increased for all EPAs and in all phases with increasing PGY year.

12. Lindeman B, Scott-Smith C, Jones A, Sarosi G, Minter RM, Jung S, Jesneck J, Thanawala R, Mellinger J, Barry C, Buyske J, Brasel KJ. **Practice Readiness of Chief**

Residents in a National Sample During the First Year of EPA Assessments.

Presented at: American Surgical Association, 2025. *Annals of Surgery* [282\(4\):p 601-607, October 2025.](#) | doi: 10.1097/SLA.0000000000006839

The majority of formative microassessments of PGY-5 residents in general surgery training programs demonstrate practice readiness for 16 of 18 EPAs. Competence of chief residents grows from the beginning to the end of the PGY-5 year for core general surgery activities.

- 13.** Diaconescu A, White E, McLeod C, Muñoz Wilson D, Sarosi G, Barry C, Jones A, Minter M, Buyske J, Brasel K, Lindeman B. **Resident Satisfaction with Feedback Quantity on their Best and Worst Rotations.** Presented at: Southern Surgical Association, 2025. *JACS*

Resident satisfaction with feedback improves is associated with receiving with more self-reported EPA MAs, particularly if they receive at least one per week. On their worst rotations, when residents are not getting alternative forms of feedback, receiving EPA MAs is associated with improved feedback satisfaction.

- 14.** Sun T, Zheng B, Yamazaki K, Smith BK, Hamstra SJ. **Association of ACGME Milestones with other performance measures in general surgery: a meta-analytic study.** *Academic Medicine* 100(11):1337-44, 2025.

This meta-analysis demonstrates that ACGME Milestones correlate strongly with some indicators of performance, including EPAs and the ABSITE, but not USMLE, social-emotional outcomes, residency application factors, or patient outcomes.

- 15.** Kasmirski JA, Jones MP, Swaminathan N, Song Z, McLeod MC, Brasel K, Sarosi G, Corey B, Lindeman B. **Does PGY Level Equate Entrustment Level? Variability in Faculty Entrustment Ratings.** *J Surg Ed* 82(12):1067-9, 2025

Most faculty demonstrate variability in the EPA entrustment ratings assigned to residents within the same PGY level. Higher variance was observed in more senior residents, suggesting individuals develop operative skills at different rates. These data also demonstrate that faculty are using EPA microassessments as intended rather than just as a proxy for PGY level.

16. Muñoz Wilson DD, McLeod L, McLeod MC, Jones A, Sarosi G, Brasel K, Barry C, Minter RM, White EM, Lindeman B. **Resident Perceptions of Entrustable Professional Activities and Faculty Engagement.** Presented at: *2026 Annual Meeting of the Association for Surgical Education*; April 28–30, 2026; Atlanta, GA. Abstract 151891. Manuscript submitted to *Global Surgical Education*.

Trainees who report a high percentage of faculty engaged in feedback endorse more frequent feedback, including EPAs, and EPAs accompanied by verbal feedback. These data suggest EPAs are an avenue for faculty to improve feedback to trainees.

17. Diaconescu A, Kasmirski J, White E, Korndorffer J, McLeod MC, Sarosi G, Barry C, Jones A, Minter RM, Brasel K, Lindeman B. **The Path to Independence: Growth in Entrustment Reflected in EPA Ratings** Presented at *2026 Annual Meeting of the American Surgical Association*, April, 2026, Seattle WA. Manuscript submitted to *Ann Surg*.

Microassessments for all EPAs from a national dataset analyzed by PG year and phase identified periods of rapid progression and progressive entrustment that differed by EPA. This allows establishment of potential benchmarks and early identification of residents in need of both additional support and increased entrustment.