

7) and total was 11 (25th, 75th 10, 13) for all providers. In the COVID period, the median number was 9 (25th, 75th 6, 11) for EM residents and 15 (25th, 75th 12, 19) total. The COVID period was associated with an increase in both the number of ED thoracostomies performed by EM residents ($p < 0.001$; coefficient 3.00, 95% CI 1.37–4.63) and the total number of ED thoracostomies ($p = 0.005$; coefficient 3.72, 95% CI 1.16–6.27).

Conclusion: Thoracostomy volume in our ED increased during the COVID pandemic. In our single-center experience, pandemic-related disruptions did not adversely impact EM resident exposure to thoracostomies in the ED.

488 | Changes in Radiology Utilization After Implementation of a New Emergency Medicine Residency Program

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Background and Objectives: Advanced radiologic imaging is a major driver of emergency department (ED) costs, but the impact of emergency medicine (EM) residency programs on imaging utilization remains uncertain. Prior studies suggest resident involvement may alter imaging patterns, but department-level effects across multiple modalities are not well defined. We evaluated changes in radiology utilization following implementation of a new EM residency program.

Methods: We conducted a retrospective, longitudinal observational study of ED encounters from August 2019–July 2023, including 24 months before and after the initiation of an EM residency program at Kaiser Modesto. An additional site, Kaiser Fresno, was used as a non-residency control. Imaging orders were obtained from the electronic health record and categorized by modality. An interrupted time series design with propensity score weighting was used to compare trends in imaging utilization across sites. A sub-analysis compared encounters with and without resident involvement using generalized estimating equation Poisson models.

Results: A total of 433,599 ED encounters were analyzed (239,217 Modesto; 194,382 Fresno). Overall imaging utilization increased similarly at both sites over time, with no significant difference in rate of change following residency implementation. In adjusted analyses, encounters involving residents were associated with higher likelihood of any imaging (RR 1.24, 95% CI 1.22–1.26) and a higher number of imaging studies (RR 1.12, 95% CI 1.11–1.14). Modality-specific analysis demonstrated a greater increase in CT and ultrasound utilization and a greater decrease in x-ray utilization at the residency site compared with the control, while MRI growth was slower at the residency site.

Conclusion: Implementation of a new EM residency program was not associated with a change in overall radiology utilization trends overall. However, ED encounters involving residents were associated increased utilization and modality-specific shifts, including increased CT and ultrasound use. These findings suggest residency training may influence imaging volume and modality, underscoring the importance of continued evaluation of resident education and attending supervision to promote high-value care.

489 | Buprenorphine Treatment Following the 2025 Telehealth Policy Transition

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Background and Objectives: Telehealth policies during the pandemic shifted healthcare delivery by permitting reimbursement for encounters via synchronous audio-video or audio modalities. As broader telehealth flexibilities from the Continuing Appropriations Act expired, targeted extensions remained for buprenorphine treatment. Social vulnerability index (SVI) is a proxy of social determinants of health. This study examined the use of telehealth in buprenorphine prescribing encounters and assessed for potential disparities in access to telehealth via stratification by social vulnerability index (SVI).

Methods: Using a large, multi-institutional electronic health record dataset of 300m+ patients (Epic Cosmos), we examined encounters with buprenorphine orders from 01/2017 to 11/2025. Encounters were classified as telehealth or non-telehealth. Utilization was stratified by SVI quintiles which were inferred based on the patient's last known residential address and proportional differences were compared to assess equity.

Results: We identified 11,797,999 buprenorphine-associated encounters among 1,653,294 unique patients. Telehealth accounted for 46.1% (95% CI: 46.11, 46.16) of encounters, and 57.9% of patients had at least one telehealth visit. Among the telehealth encounters, mean age was 50.8 (SD 15.3), 49.2% male and 50.8% female. Telehealth utilization by SVI quintile was 46.1% (95% CI: 46.08, 46.21) in Q1 (least vulnerable), 46.2% (46.18, 46.30) in Q2, 46.5% (46.43, 46.56) in Q3, 47.9% (47.83, 47.93) in Q4, and 44.5% (44.40, 44.53) in Q5 (most vulnerable). A Cochran-Armitage test identified a statistically significant monotonic decrease in telehealth utilization across increasing SVI quintiles ($p < 0.001$).

Conclusion: Telehealth utilization varied moderately across SVI quintiles, increasing slightly across Q1–Q4 before declining in the most vulnerable communities (Q5). While a statistically significant monotonic trend was observed, differences were small, suggesting broad system-wide telehealth uptake. These findings suggest the need for sustained telehealth policies to support treatment continuity and equitable access as federal flexibilities evolve.

490 | Medical Malpractice Lawsuits Involving Nonphysician Providers in the Emergency Department

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Background and Objectives: Emergency medicine (EM) increasingly relies on non-physician providers (NPPs), including nurse practitioners (NPs) and physician assistants (PAs). The objective of this study is to provide a narrative review of NPP involvement in medical malpractice lawsuits within EM.