Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Conclusion: Both large-bore thrombectomy and CDL resulted in a decrease in RV/LV ratio within 72 hours, however, neither treatment demonstrated significant superiority. Neither group demonstrated a significant change in vasopressor requirement, but the thrombectomy group had significantly reduced oxygen requirement post-intervention.

Abstract No. 281

Catheter-directed thrombolysis for pulmonary embolism: an analysis of the National Inpatient Sample

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Purpose: To evaluate outcomes following catheter-directed thrombolysis (CDT) compared with intravenous thrombolytic therapy (IVT) for pulmonary embolism (PE) in the acute care setting

Materials and Methods: The National Inpatient Sample from 2016 to 2019 was queried for all patients with PE treated with CDT or IVT. Primary outcomes were inpatient mortality, length of stay (LOS), and total cost. Secondary outcomes were intracranial hemorrhage (ICH) and need for transfusion. Patient and hospital demographics were used to adjust for measurable confounders. chi-square, Mann-Whitney U, and hierarchical logistic regression analyses were used as appropriate. A propensity-score matched cohort, a significantly higher proportion of patients in the CDT cohort had PE with associated cor pulmonale (38.8% vs 30.7%; P < 0.001). The IVT cohort had a significantly higher proportion of patients with concurrent hemodynamic instability (10.7% vs 5.8%; P < 0.001) and a higher risk of pre-procedural inpatient mortality (25.9% vs 20.0% with All Patient Restricted Diagnosis Related Groups, Risk of Mortality subclass 4).

Race, severity of illness, presence of cor pulmonale, and hemodynamic instability were significant predictors of mortality (P < 0.05) on hierarchical logistic regression. Compared with IVT, CDT was not a significant predictor of mortality (OR 0.819; 95%CI 0.597–1.124; P = 0.216). Patients in the CDT cohort had higher hospitalization costs ($109,243 vs $93,072; P < 0.001) and a longer LOS (5.2 vs 5.0 days; P = 0.002). Post-procedural LOS was not significantly different between the two groups (4.72 vs 4.57 days; P = 0.09). CDT was a significant negative predictor of ICH (OR 0.306; 95%CI 0.121–0.771; P = 0.012) and the need for transfusion (OR 0.645; 95%CI 0.422–0.984; P = 0.042). All significant predictors persisted in the PSM cohort.

Conclusion: There is no significant difference in inpatient mortality for patients receiving CDT compared with IVT for PE, despite a significant decrease in risk of ICH and need for transfusion. Patients in the CDT cohort had a significant increase in hospitalization cost with no significant difference in post-procedural LOS compared with those in the IVT cohort.
application cycles (2018–2020). There was no significant difference in the proportion of applicants that matched at programs where they reported a geographic connection in the virtual cycle vs in-person cycles. Most students are in favor of continuing virtual interviews in the future and virtual applicants saved an average of $6,058 compared with in-person applicants during the application process.

### Abstract No. 283

**The impact of endovascular simulator training on simulated procedural performance, knowledge acquisition, and attitudes toward interventional radiology in medical students**

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**Purpose:** Limited research has been conducted on the impact of exposure to high-fidelity endovascular training simulators for medical students. Our purpose was to evaluate the effectiveness of using the Mentice VIST Lab endovascular training simulator for changes in (1) the endovascular procedural skill set, (2) medical knowledge, and (3) subjective attitudes among medical students.

**Materials and Methods:** Twenty-one preclinical medical students (38% female; 5 MS1,16 MS2) were recruited to participate in small-group instructional sessions led by a board-certified Vascular Interventional Radiologist. The sessions included one hour of didactic learning followed by a two-hour training paradigm on the Mentice VIST Lab endovascular training simulator. Sessions focused on either Uterine Artery Embolization [UAE] (n=11 participants) or Transarterial Chemoembolization [TACE] (n=10 participants). Preceding the instructional session, each participant received a one-hour individual, hands-on simulator briefing and completed baseline evaluations.

Procedural metrics (i.e., number of handling errors, total procedure time, amount of contrast used, total fluoroscopy time, and patient and operator radiation exposure) for each participant were tracked on the simulator pre- and post-instructional sessions. Objective knowledge measures (procedure-based and vascular anatomy) and subjective attitudes about interventional radiology (IR) were measured using pre- and post-quizzes and surveys.

The objective performance data and subjective data were analyzed using paired t-tests and Wilcoxon signed-rank tests.

**Results:** Among both groups, statistically significant (P< 0.05) average percent improvements were seen in total procedure time (42% UAE; 55% TACE), amount of contrast used (45% UAE; 20.7% TACE), total fluoroscopy time (47% UAE; 56% TACE), measures of radiation exposure (39% UAE; 41% TACE), and number of handling errors (40% UAE, 36% TACE) compared with baseline evaluations. Procedure-based and vascular anatomy knowledge improved significantly against baseline pre-instructional session scores for both UAE (59% versus 94% correct) and TACE (74% versus 100% correct) groups. Subjective measures including interest in IR, knowledge of IR, attractiveness of IR, and likelihood of choosing IR increased after the simulator training sessions.

**Conclusion:** Our research supports the beneficial role of exposure to endovascular simulator training in early medical education. It has the potential to improve procedural skills, medical knowledge, and interest in endovascular specialties among medical students.

### Abstract No. 284

**Demographic trends in female interventional radiology trainees with the advent of the integrated interventional radiology residency: a 12-month update**

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**Purpose:** Examine changes in gender representation in the interventional radiology (IR) training pool since the advent of the integrated IR residency in 2015-2021

**Materials and Methods:** Electronic Residency Application Service (ERAS) and Accreditation Council for Graduate Medical Education (ACGME) Data Resource Book records were reviewed from 2015-2021 for Integrated IR residency/Vascular and IR (VIR) fellowship applicant data and active IR resident and VIR fellow data, respectively. Two-tailed Fisher’s exact tests and chi-square analyses were used to compare trainees between application cycles.

**Results:** In the 2017 application cycle, 23% (247/1062) of integrated IR residency applicants were female, with similar interest in the 2018, 2019, and 2020 cycles [χ²(3, N = 2863) = 5.1, P = 0.17]. In comparison, 12% of VIR fellowship applicants were female from 2017-2020. Female integrated IR residents demonstrated a consistent upward trend during this period with female integrated IR residents representing 22% (130/591) of all integrated IR residents in the 2020-2021 academic year. This is in comparison to the period prior to the integrated IR residency when female IR trainees represented 8% (23/275) of all IR trainees in 2015-2016 (P< 0.0001) (Table 1).

**Conclusion:** With the advent of the integrated IR residency, there continues to be an increasing female constituency with more than a doubling of female IR trainees, portending a continued reduction in the IR gender disparity in the future.