the aorta (REBOA) cases, the catheter was inserted by the trauma team into zone III and the balloon was inflated in order to achieve bleeding control prior to embolization (UAE) and hysterectomy. Patients were transferred afterward to the intensive care unit (ICU). The radiation dose and fluoroscopy time were recorded. The estimated blood loss (EBL), operative time, hysterectomy, postoperative complications, VIR data, maternal and fetal death, and postoperative hospitalization were recorded.

**Results:** Hysterectomy was required in all patients with PAS. The mean operating time, radiation dose and fluoroscopy time were 328.2 min, 4374.1 mGy and 27.7 min, respectively. The median (EBL) was 3000 mL. REBOA was placed prophylactically in 3 cases. 11 cases required embolization. Gelfoam was used as the only embolization material in 5 cases. Additional embolization material was required in 6 patients. Right radial (2 cases), left radial (6) and right common femoral (5) arteries were used as an access without any reported complications. No maternal mortality was reported. Massive blood transfusion was required in 5 cases. One woman developed respiratory distress after massive transfusion and required extracorporeal membrane oxygenation (ECMO). Hysterectomy was complicated by urinary bladder injury in 10 patients. Average hospital stays postoperatively including ICU stay was 7 days. A total of 3 fetal demise were reported.

**Conclusions:** This case series delineates the important role of UAE in controlling PAS related bleeding. We believe that best results can be achieved with a multidisciplinary planning with early radiological consultation. This preliminary result should stimulate other studies to demonstrate the efficacy and safety of UAE and REBOA procedures and to best identify patients who will benefit from this approach.

**Abstract No. 135**

**Point-of-care ultrasound (POCUS) versus conventional ultrasound imaging quality**

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**Purpose:** To compare the quality of point-of-care-ultrasound (POCUS) imaging for interventional procedures compared to that of conventional ultrasound (US) imaging

**Materials and Methods:** Intra-procedural US images from the first 119 procedures in 108 patients using POCUS following its integration into our practice were uploaded to a HIPAA compliant cloud. When conventional US imaging from these cases was also captured and stored on our picture archival system (PACS) for quality assurance and documentation, these images were also evaluated. 119 comparable procedures in patients with similar body mass indices and matched procedural type where conventional US was utilized were identified.

Studies were reviewed by the P.I. and the intra-procedural images stripped of PHI and proprietary ultrasound unit graphics or annotations. Representative images from each case were imported into a PowerPoint (Microsoft Corp. Redmond, WA) presentation, 1-2 images per slide, for a total of 331 case slides (123 POCUS-guided procedures with 101 correlative images taken with conventional US imaging, and 107 matched procedures performed with conventional US imaging). Slides were assorted using a random sequence generator.

The PowerPoint presentation was then stored in an electronic folder on the Departmental share-drive for review by three blinded co-investigators for image quality on a 10-point Likert scale (inadequate ≤ 4.9; adequate 5.0-6.9; good 7.0-8.9; excellent 8.0-10). Scores were compared between procedures completed with the two different US technologies (POCUS versus conventional) and across procedural categories.

**Results:** 331 total observations were made. Overall quality of the POCUS images was rated as 5.7, compared with 7.0 for conventional US images of the same cases and 6.8 for the other conventional US-guided cases. For POCUS cases, all procedural categories had images rated as adequate (5.0-5.8) except vascular access which was rated as good (6.8) and conversely nephrostomy access which was rated as 4.7. This compares to conventional US images, which were rated as good for all categories (6.4-7.9), except nephrostomy access which was rated as 5.7. In 10 cases, two of three of the reviewers deemed the image quality ≥ adequate for procedural guidance compared to the third reviewer; 9 of these cases were in the POCUS group.

**Conclusions:** Point-of-care ultrasound pocket-sized imaging was rated as “adequate” for guidance of most vascular access and non-vascular procedures compared to “good” for conventional ultrasound imaging.

**Abstract No. 136**

**Evaluation of complications associated with tunneled vascular access lines in pediatric patients**

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**Purpose:** Tunneled vascular access lines are often placed in pediatric patients for long-term vascular access. However, they can be associated with infection, thrombosis, and central vein stenosis, and have been associated with higher mortality rates. The goal of this study is to evaluate complication rates and outcomes in pediatric patients.

**Materials and Methods:** Retrospective chart review was undertaken after local institutional review board approval on patient ages one month through 22 years who underwent image-guided tunneled line placement between January 1, 2008, and August 1, 2019, at a tertiary academic pediatric hospital. Subjects were randomly selected from this time period, and clinical, procedural, immediate and long-term complications, and outcome variables were collected and evaluated for the duration of each line placement.

**Results:** A random sample of 260 patients, totaling of 738 tunneled vascular lines were evaluated. Subjects had an average number of 2.43 (SD 2.13) lines placed. Patients were nearly evenly split between males (n = 132, 51%) and females (n = 127, 49%). The average age was 7.86 (SD 5.98) years. The majority of placements were for chemotherapy (n = 555, 75.3%). Over half of the lines were totally implanted vascular access devices (TIVAD) (n = 415, 56.5%). 81% (n = 593) lines were placed on the right side. Only six (1.3%) of all placements had complications with the