Abstract:

PURPOSE: The aim of this study was to evaluate national trends in central venous access (CVA) procedures over 2 decades with regard to changing specialty group roles and places of service.

METHODS: Aggregated claims data for temporary central venous catheter and long-term CVA device (CVAD) procedures were extracted from Medicare Physician/Supplier Procedure Summary Master Files from 1992 through 2011. Central venous catheter and CVAD procedure volumes by specialty group and place of service were studied.

RESULTS: Between 1992 and 2011, temporary and long-term CVA placement procedures increased from 638,703 to 808,071 (+27%) and from 76,444 to 316,042 (+313%), respectively. For temporary central venous catheters, radiology (from 0.4% in 1992 to 32.6% in 2011) now exceeds anesthesiology (from 37% to 22%) and surgery (from 30.4% to 11.7%) as the dominant provider group. Surgery continues to dominate in placement and explantation of long-term CVADs (from 80.7% to 50.4% and from 81.6% to 47.7%, respectively), but radiology’s share has grown enormously (from 0.7% to 37.6% and from 0.2% to 28.6%). Although volumes remain small (<10% of all procedures), midlevel
practitioners have experienced >100-fold growth for most services. The inpatient hospital remains the dominant site for temporary CVA procedures (90.0% in 1992 and 81.2% in 2011), but the placement of long-term CVADs has shifted from the inpatient (from 68.9% to 45.2%) to hospital outpatient (from 26.9% to 44.3%) setting. In all hospital settings combined, radiologists place approximately half of all tunneled catheters and three-quarters all peripherally inserted central catheters.

CONCLUSIONS: Over the past 2 decades, CVA procedures on Medicare beneficiaries have increased considerably. Radiology is now the dominant overall provider.