Central venous port (CVP) placement is performed by a variety of surgeons in different subspecialties, and our previous work suggests that individual surgeons regardless of training are the strongest predictor of outcomes. We sought to prospectively evaluate a programmatic shift toward a resource-conscious, patient-focused algorithm for this common and simple surgical procedure. Venkatesan et al (2018).

Abstract:

BACKGROUND: Central venous port (CVP) placement is performed by a variety of surgeons in different subspecialties, and our previous work suggests that individual surgeons regardless of training are the strongest predictor of outcomes. We sought to prospectively evaluate a programmatic shift toward a resource-conscious, patient-focused algorithm for this common and simple surgical procedure.

MATERIALS AND METHODS: After implementation of a systems-level program for efficient CVP placement, 78 CVPs were placed by a single surgeon. Primary outcomes were procedure time, total operating room (OR) time, total facility time, and procedure-related complications. These prospective data were compared with retrospective cohorts of surgically placed and interventional radiology-placed CVP. Demographic data were analyzed by chi-square analysis, whereas time data were analyzed by the Wilcoxon rank-sum test.
RESULTS: The programmatic delivery (prospective) set showed significantly shorter procedural (median 16 min versus 26-40, P <0.05), OR times (median 36 min versus 46-70, P <0.05), and facility times (median 235 min versus 299-319, P <0.05) except for the interventional radiology facility time (median 187 versus 235, P <0.05). The range of OR time savings with the prospective versus comparison groups was 10-34 min, representing 22%-49% reductions in OR time (P <0.05). Complication rates were not significantly different (P = 0.13).

CONCLUSIONS: Through a programmatic change emphasizing efficiency and patient-centered outcomes, procedural/OR/facility time can be reduced greatly without changing complication rates. These data provide compelling evidence that common and ostensibly simple operative procedures can be substantially improved upon with thoughtful, data-driven systems-level enhancements.

Reference: