

QUALITY OF CARE/OUTCOMES

Allen J, DeSimone KJ. Valid peer review for surgeons working in small hospitals. *The American Journal of Surgery* 2002;184:16-18.

The purpose of this project was to compare the quality of delivered care by a single surgeon from a small, rural Kentucky hospital with a group of peers from the same general region. The studied surgeon performed better than the peer group in the categories of patient education, complication rates, and the use of diagnostics. Resource utilization, as measured by length of stay, was identified as an area that could be improved.

Beaulieu JE, Massey LS, Tucker TC. Rural-urban variation in breast-conserving surgery in Kentucky. *Journal of the Kentucky Medical Association* 2003;101(10):455-459.

This article examines the relationship between having breast-conserving surgery (BCS) and patients' residence. The findings indicate that women living in the most urban counties received BCS more than half the time, while only 34% to 39% of those living in the most rural counties received BCS.

Celaya MO, Rees JR, Gibson JJ. Travel distance and season of diagnosis affect treatment choice for women with early-stage breast cancer in a predominately rural population. *Cancer Causes & Control* 2006;17(6):851-856.

The objective of this study was to determine whether proximity to a radiation treatment facility and season of diagnosis affected treatment choice for New Hampshire women with early-stage breast cancer. The results showed that a substantial fraction of women with early-stage breast cancer in New Hampshire receive sub-optimal treatment by forgoing radiation because of the difficulty travelling for radiation in winter.

Dimick J, Finlayson SR. Rural hospitals and volume standards in surgery. *Surgery* 2006;140(3):367-371.

The purpose of this study was to more fully understand the impact of excluding rural areas from volume-based selective referral policies. Based on their findings, the authors concluded that most low-volume operations take place in urban hospitals. Therefore, efforts to direct patients to high-volume hospitals can exempt rural hospitals (from volume-based referral policies) and still realize most of the potential benefits.

Howe HL, Katterhagen JG, Yates J. Urban-rural differences in the management of breast cancer. *Cancer Causes & Control* 1992;3(6):533-539.

The objective of this project was to compare the patterns of care among three breast cancer populations: rural patients diagnosed in rural hospitals; rural patients traveling to urban medical centers; and urban patients diagnosed in urban medical centers. Compared with urban cases, the researchers found, rural cases diagnosed in rural hospitals were less likely to have staged tumors and more likely to have node dissections. Rural cases traveling to urban centers were less likely to have limited surgery, hormone therapy, and biopsy as a first-step surgical procedure, and more likely to have node dissection.

Maa J, Gosnell J, Gibbs V, Harris H. Exporting excellence for Whipple resection to refine the Leapfrog Initiative. *Journal of Surgical Research* 2007;138(2):189-197.

This project used a case study model to describe the surgical experience of a low volume hospital where a quality improvement program was introduced focusing on enhancing structure and processes of care. The authors' hypothesis was that defining exportable elements of the Whipple resection would allow a low volume hospital to improve upon its processes of care to safely attempt these procedures. The authors concluded that the overall quality of care provided at a low volume hospital can be substantially improved by using easily adopted, minor modifications in structural and process factors to most effectively use resources and promote quality, safety, and timeliness of care. They suggest that alternative approaches to achieving the Leapfrog goals of improving quality of care are feasible.

Paquette I, Finlayson SRG. Rural versus urban colorectal and lung cancer patients: Differences in stage at presentation. *Journal of the American College of Surgeons* 1997;205(5):636-641.

The purpose of this project was to assess differences in cancer stage of presentation between rural and urban patients. Urban rather than rural residence appears to be associated with later stages of presentation of lung and colorectal cancer at presentation. This finding is contrary to the common assumption that rural patients present at later stages of disease.

Welch H, Larson EH, Hart LG, Rosenblatt RA. Readmission after surgery in Washington State rural hospitals. *American Journal of Public Health* 1992;82(3):407-411.

The purpose of this project was to investigate one aspect of quality of care by examining patients who underwent any of four surgical procedures (appendectomy, cesarean section, cholecystectomy, and transurethral prostatectomy) frequently performed in Washington State rural hospitals. The results for the four common surgeries investigated showed that rural hospitals did not have elevated readmission rates. For each of the four procedures, 7-day readmission rates for rural hospitals were consistently lower than those in urban areas, although not significantly so. This study suggests that these four routine procedures can be provided at rural hospitals with a quality comparable to urban facilities.