

**ABSTRACTS – THE RELATIONSHIP BETWEEN VOLUME AND HEALTH OUTCOMES
(REPORT OF VOLUME / OUTCOMES SUB-GROUP)**

Bachmann MO, Alderson D, Edwards D, et al. Cohort study in South and West England of the influence of specialization on the management and outcome of patients with oesophageal and gastric cancers. *Br J Surg* 2002; 89: 914-922

Conclusion: The study supports concentration of services for oesophageal and gastric cancers. Specialization of doctors and their teams is at least as important as specialization of hospitals

Begg CB, Riedel ER, Bach PB, et al. Variations in Morbidity after radical prostatectomy. *N eng. J Med* 2002; 346: 1138-1144

Conclusion: In men undergoing prostatectomy, the rates of postoperative and late urinary complications are significantly reduced if the procedure is performed in a high-volume hospital and by a surgeon who performs a high number of such procedures.

Bianco, Fernando J.Jr, Riedel, Elyn R et al Variations among high volume surgeons in the rate of complications after radical prostatectomy : further evidence that technique matters. *Journal of Urology* 2005, 173(6):2099-2103

Conclusion: Morbidity end points that directly affect quality of life showed significant variability among high volume providers. Surgeons who perform well in 1 area (eg postoperative complications) performed well in others. These results further suggest that variations in surgical technique and post operative care lead to variations in outcome after radical prostatectomy, indicating that outcomes of this operation are sensitive to small differences in performance.

Begg CB, Scardino PT. Taking stock of volume –outcome studies. *J Clin. Oncol.*2003; 21: 393-4

Editorial included in the file text highlighted for your consideration include: High-volume hospitals demonstrate lower mortality rates, with the magnitude of the trend varying considerably by procedure. For cancer surgery, trends for pancreatectomy and oesophagectomy are especially pronounced.

Birkmeyer JD, Dimick JB. Potential benefits of the new leapfrog standards: effect of process and outcome measures. *Surgery* 2004; 135: 569-575

Conclusion: Widespread implementation of the 2003 leapfrog standards for evidence-based referral could avert a large number of surgical deaths. For some procedures, standards comprised of process of care or direct outcome measures would be more effective than those based on volume alone.

Birkmeyer JD, Finlayson EV, Birkmeyer CM. Volume standards for high-risk surgical procedures: Potential benefits of the Leapfrog initiative. *Surgery* 2001; 130: 415-422

Conclusion: If the leapfrog volume standards are successfully implemented, employers and health-care purchasers could prevent many surgical deaths by requiring hospital volume standards for high-risk procedures.

Birkmeyer JD, Siewers AE, Finlayson EV, et al. Hospital volume and surgical mortality in the United States. *N Eng J Med* 2002; 346: 1128-1137

Conclusion: In the absence of other information about the quality of surgery at the hospitals near them, Medicare patients undergoing selected cardiovascular or cancer procedures can significantly reduce their risk of operative death by selecting a high-volume hospital

Birkmeyer JD, Stukel TA, Siewers AE et al. Surgeon volume and operative mortality in the United States. *N Eng J Med* 2003; 349: 2117-2127

Conclusion: For many procedures, the observed associations between hospital volume and operative mortality are largely mediated by surgeon volume. Patients can often improve their chances of survival substantially, even at high-volume hospitals, by selecting surgeons who perform the operations frequently.

Finlayson EV, Goodney PP, Birkmeyer JD. Hospital volume and operative mortality in cancer surgery: A national study. *Archives of Surgery* 2003; 138: 721-725

Conclusion; Operative mortality decreases with increasing hospital volume for several cancer resections. However, volume may be most important in patients who are older and are at high risk.

Halm EA, Lee C, Chassin MR. Is volume related to outcome in health care? A systematic review and methodological critique of the literature. *Ann Intern Med* 2002; 137: 511-520

Conclusion: High volume is associated with better outcomes across a wide range of procedures and conditions, but the magnitude of the association varies greatly. The clinical and policy significance of these findings is complicated by the methodologic shortcomings of many studies. Differences in case mix and process of care between high-and low-volume providers may explain part of the observed relationship between volume and outcome.

Hodgson DC, Zhang W, Zaslavsky AM et al. Relation of hospital volume to colostomy rates and survival for patients with rectal cancer. *J Natl Cancer Inst* 2003; 95: 708-716

Conclusion: Rectal cancer patients who underwent surgery at high-volume hospitals were less likely to have a permanent colostomy and had better survival rates than those treated in low-volume hospitals. Identifying processes of care that contribute to these differences may improve patients' outcomes in all hospitals