# Oncologia in Toscana: monitorare i percorsi e accogliere l'innovazione

#### CONVEGNO 15 NOVEMBRE 2019 SALONE DELLE ROBBIANE – VILLA LA QUIETE VIA DI BOLDRONE 2 – FIRENZE

Organizzato da ARS Toscana e ISPRO



# VOLUME DELLA CASISTICA ED ESITI DELLE CURE

## **Buccianti Piero**

DAI Chirurgia Generale UC Chirurgia Generale AOUPisana





## Original Investigation | Oncology Motivators, Barriers, and Facilitators to Traveling to the Safest Hospitals in the United States for Complex Cancer Surgery

Benjamin J. Resio, MD; Alexander S. Chiu, MD; Jessica R. Hoag, PhD; Lawrence B. Brown, MHS; Marney White, PhD, MS; Audry Omar, MA; Andres Monsalve, MD; Andrew P. Dhanasopon, MD; Justin D. Blasberg, MD; Daniel J. Boffa, MD

#### Conclusions

It appears that much of the US public could be motivated to travel to safer hospitals for complex cancer surgery, yet the majority would require some support to do so. Further efforts to ensure that benefits from regionalization are equitable across sociodemographic strata are indicated.

# Would Regionalization of Systemic Cancer Therapy Improve the Quality of Cancer Care?

Michael J. Raphael, MD<sup>1,2</sup>; D. Robert Siemens, MD<sup>1,2</sup>; and Christopher M. Booth, MD<sup>1,2</sup>

In conclusion, innovative systemic therapies are rapidly transforming the therapeutic landscape; patients deserve a concerted effort to innovate and improve the way in which systemic therapy is organized and delivered. Regionalization of complex cancer systemic therapies to higher-volume institutions may be one such approach, but further research is needed to better understand the potential benefits and unintended consequences.

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Volume 15, Issue 7

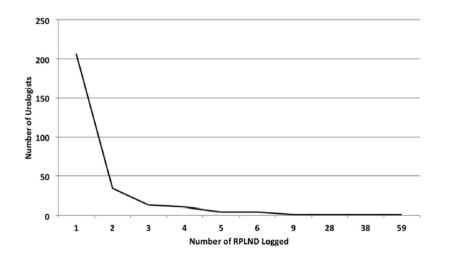
# Health Services Research

# Patterns of Performance of Retroperitoneal Lymph Node Dissections by American Urologists: Most Retroperitoneal Lymph Node Dissections in the United States Are Performed by Low-volume Surgeons

Andrew S. Flum, Laurie Bachrach, Borko D. Jovanovic, Irene B. Helenowski, Sarah C. Flury, and Joshua J. Meeks

#### CONCLUSION

Despite the critical importance of the surgical quality for outcomes of patients with testis cancer, the majority of surgeons performing RPLND are certifying for the first time and log only 1 RPLND. UROLOGY 84: 1325–1328, 2014. © 2014 Elsevier Inc.



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JOURNAL OF CLINICAL ONCOLOGY

COMMENTS AND CONTROVERSIES

## Practice Makes Perfect: The Rest of the Story in Testicular Cancer as a Model Curable Neoplasm

Torgrim Tandstad, St Olavs University Hospital, Trondheim, Norway Christian K. Kollmannsberger, University of British Columbia, Vancouver, British Columbia, Canada Bruce J. Roth, Washington University School of Medicine, St Louis, MO Claudio Jeldres, Sherbrooke University, Sherbrooke, Quebec, Canada Silke Gillessen, Kantonsspital, St Gallen, Switzerland Karim Fizazi, University of Paris Sud, Paris, France Siamak Daneshmand, University of Southern California, Norris Comprehensive Cancer Center, Los Angeles, CA William T. Lowrance, Huntsman Cancer Institute, University of Utah, Salt Lake City, UT Nasser H. Hanna, Costantine Albany, and Richard Foster, Indiana University School of Medicine, Indianapolis, IN Gabriella Cohn Cedermark, Karolinska Institute and Karolinska University Hospital, Stockholm, Sweden Darren R. Feldman, Memorial Sloan Kettering Cancer Center and Weill Medical Cornell Medical College, New York, NY Thomas Powles, Barts Cancer Institute, St Bartholomew's Hospital, Queen Mary University of London, London, United Kingdom Mark A. Lewis, Intermountain Health, Salt Lake City, UT Peter Scott Grimison, University of Svdney, Sydney, New South Wales, Australia Douglas Bank, Testicular Cancer Resource Center, Riverwoods, IL Christopher Porter, Virginia Mason Medical Center, Seattle, WA Peter Albers, Heinrich-Heine University Düsseldorf, Düsseldorf, Germany Maria De Santis, Cancer Research Center, University of Warwick, Coventry, United Kingdom Sandy Srinivas, Stanford University School of Medicine, Stanford, CA George J. Bosl, Memorial Sloan Kettering Cancer Center, New York, NY Craig R. Nichols, Precision Genomics Cancer Research Clinic, Intermountain Health, Salt Lake City, UT; Testicular Cancer Commons, Portland, OR



RESEARCH ARTICLE

Volume-outcome revisited: The effect of hospital and surgeon volumes on multiple outcome measures in oesophago-gastric cancer surgery

#### Conclusions

In the setting of centralized O-G cancer surgery in England, we could still observe an effect of volume on short-term outcomes. However, the effect is inconsistent, depending on the type of outcome measure under consideration, and much smaller than in previous studies. Efforts to centralise O-G cancer services further should carefully address the effects of both hospital and surgeon volume on the range of outcome measures that are relevant to patients.

October 26, 2017

BIUI Assessing the quality of the volume-outcome relationship in uro-oncology

Erik K. Mayer\*<sup>†</sup>, Sanjay Purkayastha<sup>†</sup>, Thanos Athanasiou<sup>†</sup>, Ara Darzi<sup>†</sup> and Justin A. Vale\*

#### CONCLUSION

The methodological quality of volume outcome research as applied to cystectomy, prostatectomy and nephrectomy is only modest at best. Accepting several limitations, pooled analysis confirms a higher-volume, lower-mortality relationship for cystectomy and nephrectomy. Future research should focus on the development of a quality framework with a validated scoring system for the bench-marking of data to improve validity and facilitate rational policy-making within the speciality of uro-oncology.

2008

# The volume effect in paediatric oncology: a systematic review

R. R. G. Knops<sup>1\*</sup>, E. C. van Dalen<sup>1</sup>, R. L. Mulder<sup>1</sup>, E. Leclercq<sup>1</sup>, S. L. Knijnenburg<sup>1</sup>, G. J. L. Kaspers<sup>2</sup>, R. Pieters<sup>2</sup>, H. N. Caron<sup>1,2</sup> & L. C. M. Kremer<sup>1,2</sup>

<sup>1</sup>Department of Paediatric Oncology, Emma Children's Hospital/Academic Medical Centre, Amsterdam; <sup>2</sup>Dutch Childhood Oncology Group (Stichting Kinderoncologie Nederland), The Hague, The Netherlands

Received 17 August 2012; revised 24 October 2012; accepted 11 December 2012

**Background:** For several adult cancer types, there is evidence that treatment in high volume hospitals, high case volume providers, or in specialised hospitals leads to a better outcome. The aim of this study is to give an overview of the existing evidence regarding the volume effect in paediatric oncology related to the quality of care or survival.

Materials and methods: An extensive search was carried out for studies on the effect of provider case volume on the quality of care or survival in childhood cancer. Information about study characteristics, comparisons, results, and quality assessment were abstracted.

**Results:** In total, 14 studies were included in this systematic review. Studies with a low risk of bias provide evidence that treatment of children with brain tumours, acute lymphoblastic leukaemia, osteosarcoma, Ewing's sarcoma, or children receiving treatment with allogenic bone marrow transplantation in higher volume hospitals, specialised hospitals, or by high case volume providers, is related with a better outcome.

**Conclusions:** This systematic review provides support for the statement that higher volume hospitals, higher case volume providers, and specialised hospitals are related to the better outcome in paediatric oncology. No studies reported a negative effect of a higher volume.



# **HHS Public Access**

Author manuscript

Cancer. Author manuscript; available in PMC 2019 November 01.

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# Oncologist volume and outcomes in older adults diagnosed with diffuse large B cell lymphoma

DR. Scott F. Huntington, MD MPH<sup>\*,1,2</sup>, Jessica R. Hoag, PhD<sup>2</sup>, Weiwei Zhu, Ms<sup>2</sup>, DR. Rong Wang, PhD<sup>2,3</sup>, Amer M. Zeidan, MD<sup>1,2</sup>, Smith Giri, MD<sup>1,2</sup>, Nikolai A. Podoltsev, MD PhD<sup>1</sup>, Steven D. Gore, MD<sup>1</sup>, Xiaomei Ma, PhD<sup>2,3</sup>, Cary P. Gross, MD<sup>2</sup>, and DR. Amy J. Davidoff, PhD<sup>2,4</sup>

Conclusions: In older adults diagnosed with DLBCL, receiving care from a provider with greater prior lymphoma volume was associated with receipt of guideline-adherent therapy, reduced hospitalizations, and improved survival. Clinical volume may be an important factor in providing high quality cancer care in the modern era.

International Journal of Radiation Oncology biology • physics

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#### EDITORIAL

# Is It Time for New Target Volumes in Radiation (I) Counter Oncology?

David Palma, MD, PhD

Division of Radiation Oncology, London Health Sciences Centre, London, Ontario, Canada Received Sep 20, 2016. Accepted for publication Sep 22, 2016.

In the interim, radiation oncology departments and individual radiation oncologists should be cognizant of a potential risk associated with low-volume treatments. As individual doctors, when faced with a situation in which we ourselves are the lowvolume provider, we should seek out appropriate mentorship and consider referral to a high volume provider as the situation warrants.

## Presidential Address

# Society of Surgical Oncology Presidential Address: Volume, Outcome, and Surgical Specialization

### John M. Daly, MD

What does this individual patient teach us?

First, institutional and surgeon reputations, not outcomes data, play major roles in an individual's treatment selection.

Second, complications do occur after hospital discharge and may not always be recorded in certain databases.

Third, the benefits of certain treatment options relate to averages and are not specific to individuals.

Finally, hospital and surgeon volumes, along with specialty training, may influence patient outcome, but the processes of care that are most important are not always clear.

2003

## Quality Versus Quantity

### The Potential Impact of Public Reporting of Hospital Safety for Complex Cancer Surgery

Alexander S. Chiu, MD,\* Brian N. Arnold, MD,\* Jessica R. Hoag, PhD, † Jeph Herrin, PhD, †‡ Clara H. Kim, BA,\* Michelle C. Salazar, MD,\* Andres F. Monsalve, MD,\* Raymond A. Jean, MD,\* Justin D. Blasberg, MD,§ Frank C. Detterbeck, MD,§ Cary P. Gross, MD,† and Daniel J. Boffa, MD†§

Objective: To estimate the potential mortality reduction if patients chose the safest hospitals for complex cancer surgery. Background: Mortality after complex oncologic surgery is highly variable across hospitals, and directing patients away from unsafe hospitals could potentially improve survivorship. Hospital quality measures are becoming increasingly accessible at a time when patients are more engaged in choosing providers. It is currently unclear what information to share with patients to maximally capitalize on patient-centered realignment.

Methods: The National Cancer Database was queried for adults undergoing 5 complex cancer surgeries (pulmonary lobectomy, pneumonectomy, esoph- agectomy, gastrectomy, and colectomy) for a primary cancer between 2008 and 2012. Risk-standardized mortality rate (RSMR) methodology, currently used by Medicare-based hospital rating systems, was used to classify hospitals as "safest" and "least safe" by procedure. Patients were modeled moving from "least safe" to "safest" hospitals and the potential number of lives saved through patient realignment determined. As surgical volume has historically been used to distinguish safe hospitals, comparisons were made to models moving patients from low-volume to high-volume hospitals.

Results: A total of 292,040 patients were analyzed. In an optimally modeled scenario, realignment using RSMR would result in a greater number of lives saved (3592 vs 2161, P < 0.01) and require only 15 patients to change hospitals to save a life, compared to 78 patients using volume models (P < 0.01). Conclusions: Public reporting of hospital safety, specifically based on RSMR instead of volume, has the potential to lead to meaningful reductions in surgical mortality after complex cancer surgery, even in the setting of a modest patient realignment.

Annals of Surgery Volume 270, Number 2, August 2019

# Systematic review and a meta-analysis of hospital and surgeon volume/outcome relationships in colorectal cancer surgery

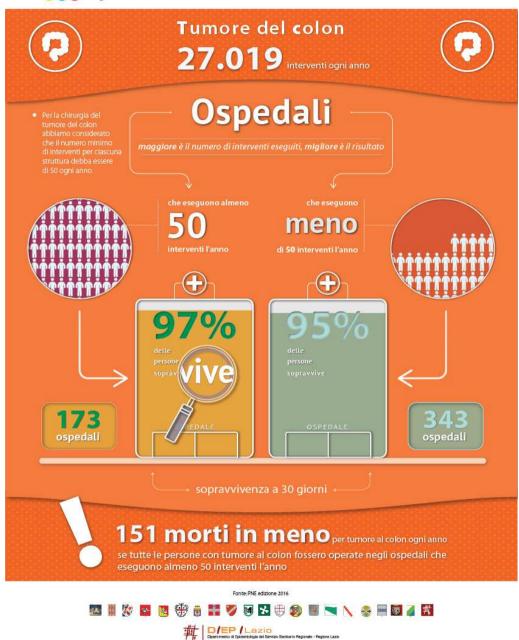
Ya Ruth Huo<sup>1,2\*</sup>, Kevin Phan<sup>3,4\*</sup>, David L. Morris<sup>1,2</sup>, Winston Liauw<sup>2,5</sup>

**Results:** There were 47 articles pooled (1,122,303 patients, 9,877 hospitals and 9,649 surgeons). The metaanalysis demonstrated that there is a volume-outcome relationship that favours high volume facilities and high volume surgeons. Higher hospital and surgeon volume resulted in reduced 30-day mortality (HR: 0.83; 95% CI: 0.78–0.87, P<0.001 & HR: 0.84; 95% CI: 0.80–0.89, P<0.001 respectively) and intra-operative mortality (HR: 0.82; 95% CI: 0.76–0.86, P<0.001 & HR: 0.50; 95% CI: 0.40–0.62, P<0.001 respectively). Post-operative complication rates depended on hospital volume (HR: 0.89; 95% CI: 0.81–0.98, P<0.05), but not surgeon volume except with respect to anastomotic leak (HR: 0.59; 95% CI: 0.37–0.94, P<0.01). High volume surgeons are associated with greater 5-year survival and greater lymph node retrieval, whilst reducing recurrence rates, operative time, length of stay and cost.

**Conclusions:** High volume by surgeon and high volume by hospital are associated with better outcomes for colorectal cancer surgery. However, this relationship is non-linear with no clear threshold of effect being identified and an apparent ceiling of effect.

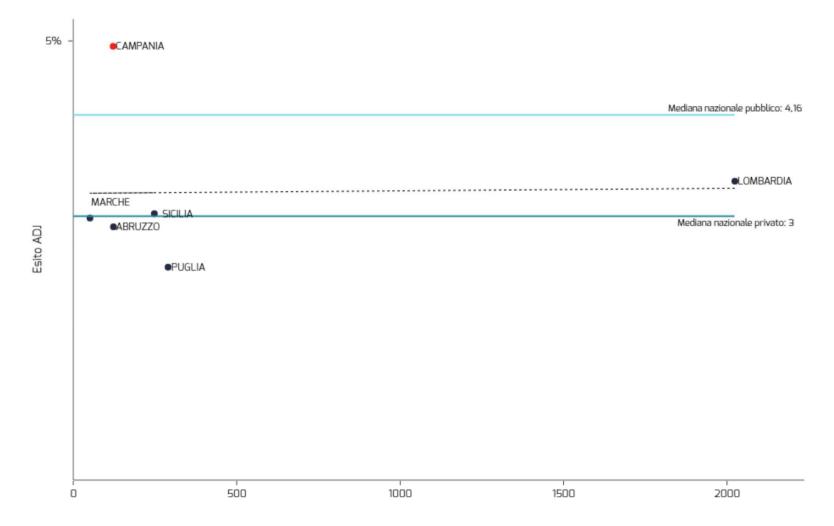
#### 🧕 Ministero della Salute 🛛 🚨 Agenzia Nazionale por i Serviri Sanitari Regionali

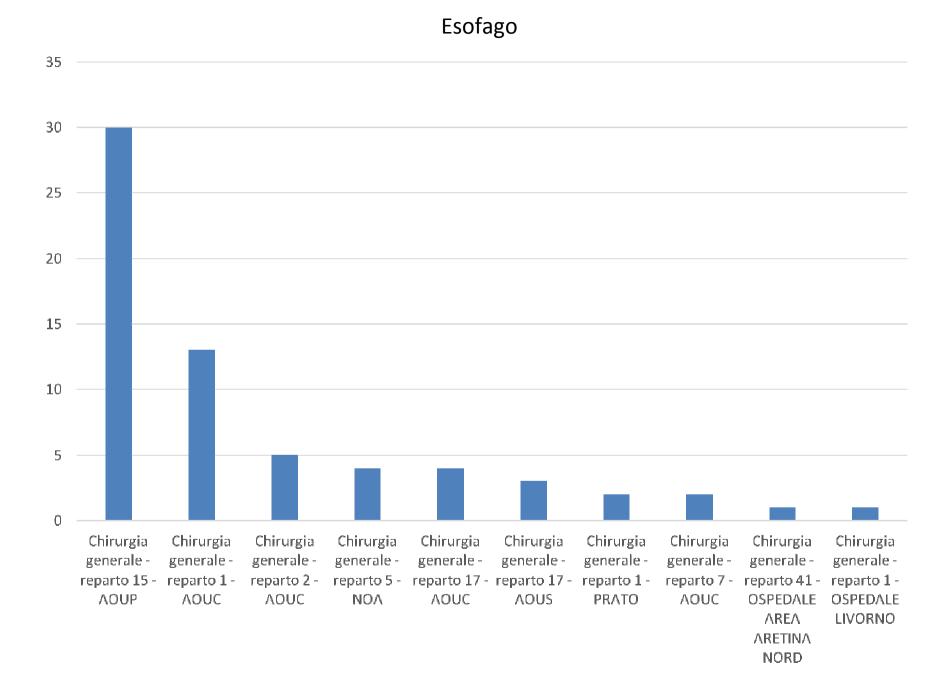
Programma Nazionale Esiti - PNE



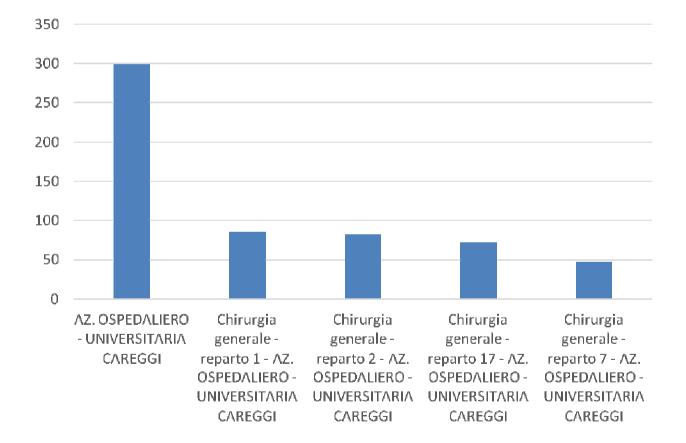
### Pubblico vs Privato

#### INTERVENTO CHIRURGICO PER TM COLON: mortalità a 30 giorni TUTTE LE REGIONI

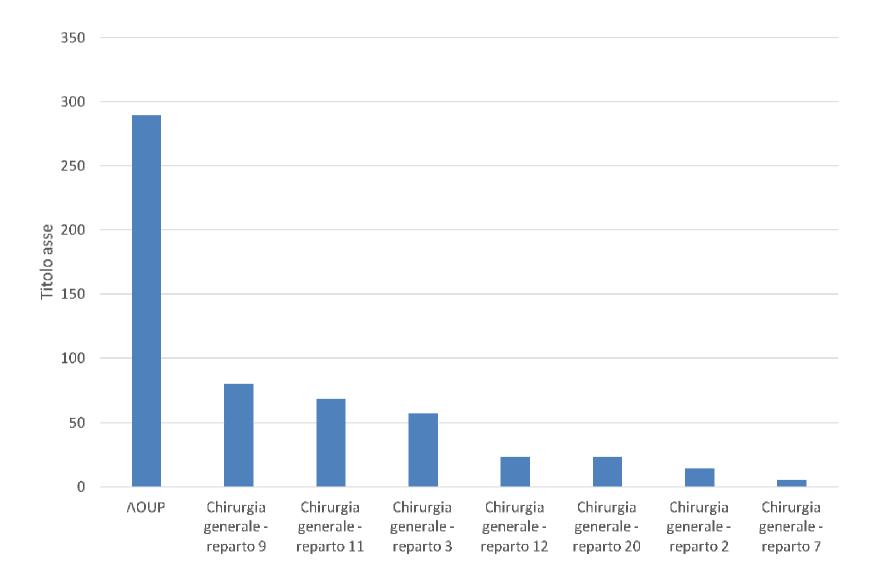




### Colon volumi PNE 2018 AOUC



### Colon volumi PNE 2018 AOUP



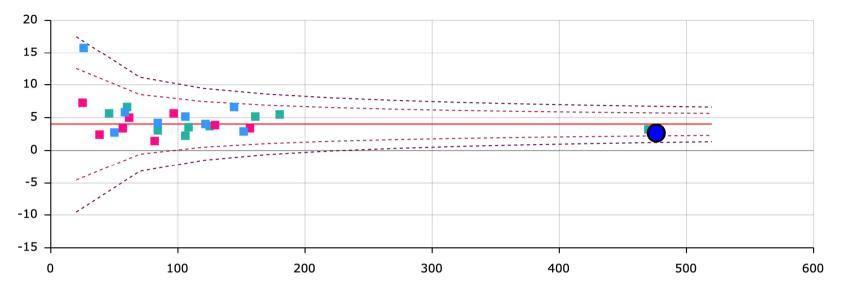
### Colon volumi PNE 2018

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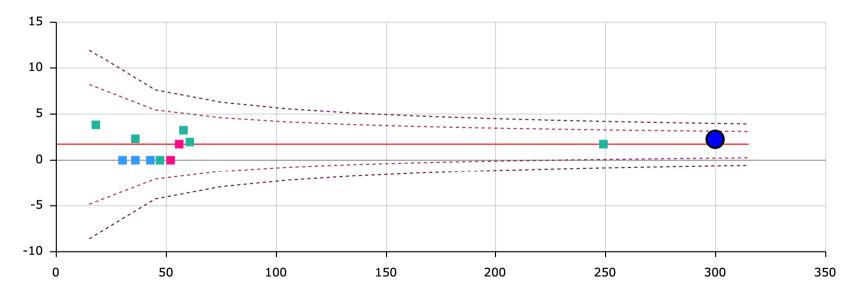
### Colon volumi PNE 2018

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Intervento K colon, rischio morte 30g per 100 A.O.U.U. Pisana-Pisa - Periodo 2017-2018



Intervento K retto, rischio morte 30g per 100 A.O.U.U. Pisana-Pisa - Periodo 2016-2018





### **Expertise of High-Volume Cancer Centers**



"We think we can remediate that to some degree by keeping [patients] at home and having their local oncologist deliver care," Dr Nichols said. "<u>The problem there is the ego of the local oncologist</u>, which is not insubstantial."

Dr Nichols acknowledged that this shift in care won't happen organically. <u>Insurers and/or regulatory</u> <u>entities will need to allow and encourage more consultations, including by telemedicine,</u>

with high-volume cancer centers In the future, Dr Nichols predicted that this need for more consultation with high volume centers won't be limited to uncommon malignancies, as genomic advances continue to reshape oncology. Already, he said, a common malignancy like lung cancer can be broken into different treatment subgroups based on the presence of molecular drivers of disease, depending on whether testing identifies actionable gene mutations.

Dr Nichols explained that tapping into the drug-treatment expertise of high-volume centers will become increasingly important as <u>surgery starts taking the backseat</u>.

"<u>We're moving away from big complex surgeries</u>, with better biomarkers and better systemic therapies."

The NEW ENGLAND JOURNAL of MEDICINE

# CLINICAL DECISIONS

## **Clinical Effect of Surgical Volume**

US.News HEALTH

# Surgeons Push Back Against Minimum Volume Standards

Though research shows setting limits improves outcomes, doctors are concerned doing so will affect access to care.

By Steve Sternberg, Assistant Managing Editor, Health Initiatives June 23, 2015