

**S.I.O.G.**

**Annual Meeting, Manchester 2012**

**“Surgical Excision and Reconstruction for Bladder Cancer”**

**M. Maffezzini, Genova, Italy**



The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

**Trends in Hospital Volume and Operative Mortality for High-Risk Surgery**

Jonathan F. Finks, M.D., Nicholas H. Osborne, M.D.

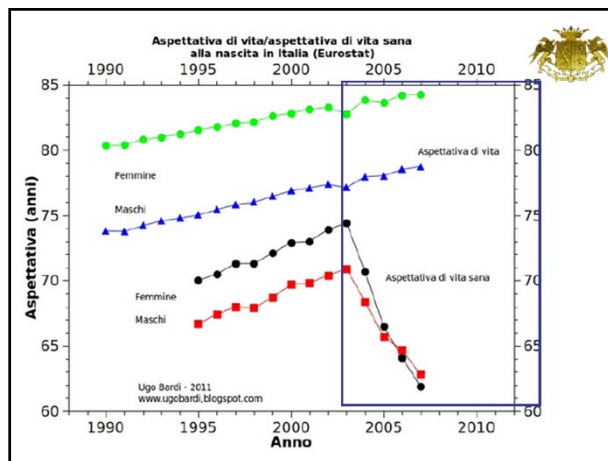
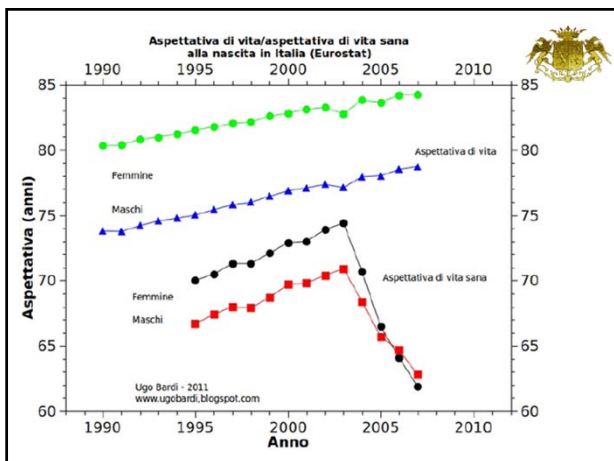
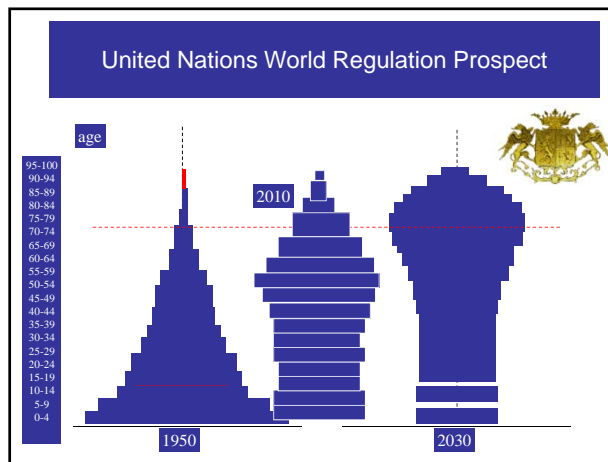
**RESULTS**

Median hospital volumes of four cancer resections (lung, esophagus, pancreas, and bladder) and of repair of abdominal aortic aneurysm (AAA) rose substantially. Depending on the procedure, higher hospital volumes were attributable to an increasing number of cases nationwide, an increasing market concentration, or both. Hospital volumes rose slightly for aortic-valve replacement but fell for coronary-artery bypass grafting and carotid endarterectomy. Operative mortality declined for all eight procedures, ranging from a relative decline of 8% for carotid endarterectomy (1.3% mortality in 1999 and 1.2% in 2008) to 36% for AAA repair (4.4% in 1999 and 2.8% in 2008). Higher hospital volumes explained a large portion of the decline in mortality for pancreatotomy (67% of the decline), cystectomy (37%), and esophagectomy (32%), but not for the other procedures.

Table 2. Procedure-Specific Characteristics, Major Coexisting Conditions, and Predicted Mortality Rates among Medicare Patients, from 1999 through 2008.\*

Variable	1999-2000	2001-2002	2003-2004	2005-2006	2007-2008
<b>Esophagectomy</b>					
Age — yr	72.3±8.1	72.1±8.2	72.0±8.4	71.8±8.4	71.7±8.3
≥3 Coexisting conditions — %	28.1	29.8	31.5	32.2	30.0
Predicted mortality — % (95% CI)	9.7 (9.5-9.9)	9.5 (9.3-9.7)	9.3 (9.1-9.5)	9.6 (9.4-9.9)	9.3 (9.1-9.5)
<b>Pancreatotomy</b>					
Age — yr	71.5±9.4	71.6±9.3	71.8±9.3	71.8±9.3	71.8±9.2
≥3 Coexisting conditions — %	25.0	27.2	30.4	33.4	33.4
Predicted mortality — % (95% CI)	6.8 (6.7-7.1)	6.7 (6.6-7.0)	6.6 (6.4-6.7)	6.4 (6.3-6.6)	6.3 (6.1-6.4)
<b>Lung resection</b>					
Age — yr	72.2±7.1	72.2±7.2	72.3±7.4	72.3±7.6	72.3±7.7
≥3 Coexisting conditions — %	26.6	30.0	32.7	36.4	36.5
Predicted mortality — % (95% CI)	4.8 (4.8-4.9)	4.7 (4.7-4.8)	4.7 (4.6-4.7)	4.7 (4.7-4.8)	4.7 (4.6-4.7)
<b>Cystectomy</b>					
Age — yr	73.4±7.9	73.3±8.1	73.4±8.0	73.5±8.1	73.6±8.0
≥3 Coexisting conditions — %	20.8	23.2	27.1	30.9	31.3
Predicted mortality — % (95% CI)	3.7 (3.7-3.8)	3.6 (3.6-3.7)	3.6 (3.6-3.7)	3.9 (3.9-4.0)	4.2 (4.1-4.3)
<b>AAA repair</b>					
Age — yr	74.4±6.3	74.8±6.5	75.0±6.7	75.2±6.9	75.4±7.1
≥3 Coexisting conditions — %	33.5	34.4	36.9	40.3	39.0
Predicted mortality — % (95% CI)	3.5 (3.5-3.6)	3.4 (3.4-3.4)	3.3 (3.3-3.4)	3.6 (3.6-3.7)	3.6 (3.6-3.7)
<b>CABG</b>					
Age — yr	72.4±7.4	72.3±7.6	72.2±7.8	72.1±7.9	71.9±8.0
≥3 Coexisting conditions — %	30.6	34.6	38.9	44.7	37.5
Predicted mortality — % (95% CI)	3.8 (3.8-3.8)	3.8 (3.8-3.8)	3.9 (3.9-3.9)	4.4 (4.4-4.4)	4.3 (4.2-4.3)
<b>Carotid endarterectomy</b>					
Age — yr	74.6±7.0	74.7±7.0	74.7±7.3	74.7±7.4	74.7±7.6
≥3 Coexisting conditions — %	22.5	25.0	28.8	33.8	35.4
Predicted mortality — % (95% CI)	1.2 (1.2-1.2)	1.2 (1.2-1.2)	1.2 (1.2-1.3)	1.3 (1.3-1.3)	1.3 (1.3-1.3)
<b>Aortic-valve replacement</b>					
Age — yr	74.7±8.0	74.8±8.1	74.8±8.3	74.9±8.3	75.1±8.1
≥3 Coexisting conditions — %	39.4	41.0	46.6	51.7	53.2
Predicted mortality — % (95% CI)	6.8 (6.8-6.8)	6.9 (6.9-6.9)	6.9 (6.9-7.0)	7.6 (7.6-7.7)	7.0 (7.0-7.1)

Finks JF, NEJM 2011;364:2128



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### Age and Comorbidity Impact Surgical Therapy in Older Bladder Carcinoma Patients

*A Population-Based Study*

CANCER October 15, 2005 / Volume 104 / Number 8

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**BACKGROUND:** Bladder carcinoma often occurs in older patients who also may have other comorbid conditions that could influence the administration of surgical therapy. The current study was conducted to describe the distribution of comorbid conditions in patients with bladder carcinoma and ascertain whether these conditions, as grouped by the American Society of Anesthesiologists physical status classification, affected the choice of surgical therapy.

**1 of 2 men with muscle-invasive bladder cancer undergoes Radical Cystectomy in the age range 54-65 ys, and from 65 - 74. The proportion drops substantially to 1 in 6 in men Aged 75 to 79 ys, and further to 1 in 10 in octogerians.**

**• Complications:**  
**• P.O.I. the most freq.!**  
**• room for improvement?**

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### Fast-track colorectal surgery

**Evidence-based methods**

- Obtain preoperative information on patients and optimise organ dysfunction<sup>1,2</sup>
- Epidural analgesia or non-opioid multimodal analgesia<sup>3,4</sup>
- Avoidance of fluid excess or use of goal-directed therapy<sup>4,5</sup>
- No preoperative bowel clearance<sup>6</sup>
- No routine use of drains<sup>7</sup>
- No routine use of nasogastric tubes<sup>8</sup>
- Early oral feeding and mobilisation<sup>9,10</sup>
- Consider preoperative carbohydrate administration<sup>7</sup>
- Well-defined daily care maps or discharge criteria<sup>11</sup>

**Results of fast-track compared with traditional surgery<sup>12-14</sup>**

- Reduced duration of ileus
- Improved muscle strength, exercise capacity, or lean body mass
- Improved oral energy and protein intake
- Decreased cardiopulmonary morbidity
- Reduced hospital stay
- No effect on rate of readmissions
- Decreased period of postoperative convalescence
- Reduced costs


### # 4. INTERVENTIONS

**Pre-Op:**  
*Limited Mechanical Bowel Prep*  
*Dinner allowed before surgery*  
*c.v.c.*  
*epidural thoracic T10 - T11 cannula*

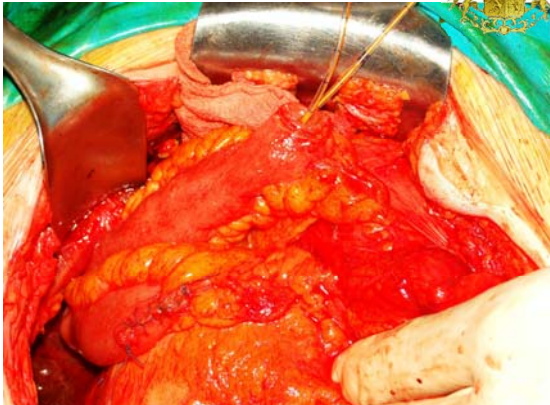
**Intra-Op**  
*Combined General Epidural Anaesthesia (No opioids)*  
*Controlled Hypotension 80 mmHg*  
*Epidural analgetics*  
*Timely Correction of Hypovolemia 500 ml blood loss*  
*Prevention of Hypoxia*  
*Prevention of Hypothermia*

**Jejunostomy**

**Post-Op.**  
*NGT timely removal (6-8 H post-op)*  
*Early Passive/active Mobility*  
*Artificial Provision of Nutrients*  
*Soft Food per os allowed on POD 1*  
*Epidural analgetics (5 ml/h) first 50 post-op Hs.*



**...75 ys old , and older...?!?**



Original Article **Bricker's vs Orthot. 4 : 1**

## Urinary Diversion and Morbidity After Radical Cystectomy for Bladder Cancer

John L. Gore, MD<sup>1,2</sup>, Hua-Yin Yu, MD<sup>3</sup>, Claude Setodji, PhD<sup>4</sup>, Jan M. Hanley, MS<sup>4</sup>, Mark S. Litwin, MD, MPH<sup>1,4,5,6</sup>, Christopher S. Saigal, MD, MPH<sup>1,4,5</sup>, and the Urologic Diseases in America Project

**BACKGROUND:** The rate of continent urinary diversion after radical cystectomy for bladder cancer varies by patient and provider characteristics. Demonstration of equivalent complication rates, independent of diversion type, may decrease provider reluctance to perform continent reconstructions. The authors sought to determine whether continent reconstructions confer increased complication rates after radical cystectomy. **METHODS:** From the Nationwide Inpatient Sample, the authors used International Classification of Disease (ICD-9) codes to identify subjects who underwent radical cystectomy for bladder cancer during 2001-2005. They determined acute postoperative medical and surgical complications from ICD-9 codes and compared complication rates by reconstruction type using the nearest neighbor propensity score matching method and multivariate logistic regression models. **RESULTS:** Adjusting for case-mix differences between reconstructive groups, continent diversions conferred a lower risk of medical, surgical, and disposition-related complications that was statistically significant for bowel (3.3% lower risk; 95% confidence interval [95% CI], -6.8% to -0.1%), urinary (1.2% lower risk; 95% CI, -2.3% to -0.4%), and other surgical complications (3.0% lower risk; 95% CI, -6.2% to -0.4%), and discharge other than home (8.2% lower risk; 95% CI, -12.1% to -4.6%) compared with ileal conduit subjects. Older age and certain comorbid conditions, including congestive heart failure and preoperative weight loss, were associated with significantly increased odds of postoperative medical and surgical complications in all subjects. **CONCLUSIONS:** Mode of urinary diversion after radical cystectomy for bladder cancer is not associated with increased risk of immediate postoperative complications. These results may encourage broader consideration of continent urinary diversion without concern for increased complication rates. *Cancer* 2010;116:331-9. © 2010 American Cancer Society.

**KEYWORDS:** bladder cancer, radical cystectomy, morbidity, urinary diversion.

## Ileo-Colonic Pouch "Indiana"

Rowland RG, J Urol 137:1136-9, 1987

Surgical Oncology

Fast-track surgery and technical nuances to reduce complications after radical cystectomy and intestinal urinary diversion with the modified Indiana pouch

Massimo Maffezzini<sup>a,\*</sup>, Fabio Campodonico<sup>a</sup>, Giacomo Capponi<sup>a</sup>, Egi Manupatny<sup>a,†</sup>, Guido Gerbi<sup>a</sup>

**Table 4**

Postoperative complications.	
Major surgical: pts no	Clavien grade pts no
Death 2	V 2
Dehiscence intestinal anastomosis 1	III b 5
Jejunal cannula displacement 1	
Uretero-colonic anastomosis stricture 1	
Ureteral stone 1	
Afferent ileal limb realignment 1	
Minor surgical:	III a 4
Wound dehiscence 3	
Stoma mucosal prolapse 1	
Major medical	IV 2
Myocardial infarction 1	
Sepsis 1	
Minor medical	II 9
Cl. Difficilis colitis 2	
Urinary infection 1	
Delirium 4	
Failure to thrive 2	
Permanent Catheter 2	I d 2
Total 24	Total 24

REVIEW

## Pre-operative assessment of cancer in the elderly (PACE): A comprehensive assessment of underlying characteristics of elderly cancer patients prior to elective surgery

D. Pope<sup>a</sup>, H. Ramesh<sup>b</sup>, R. Gennari<sup>c</sup>, G. Corsini<sup>d</sup>, M. Maffezzini<sup>e</sup>, H.J. Hoekstra<sup>f</sup>, D. Mobarak<sup>g</sup>, K. Sunouchi<sup>h</sup>, A. Stotter<sup>i</sup>, C. West<sup>a</sup>, R.A. Audisio<sup>a,b,\*</sup>

Fig. 1. Proportion of patients with complications (any and major) by severity of surgery, stratified by age group.

Oncology Hematology

Shall we operate? Preoperative assessment in elderly cancer patients (PACE) can help A SIOG surgical task force prospective study

PACE participants<sup>a,†</sup>

Component of PACE	RR*	95% CI
MMS abnormal (<24)	1.18	0.76-1.86
ADL dependent (>0)	2.01	1.37-2.93
IADL dependent (<8)	1.58	1.11-2.24
GDS depressed (>4)	1.30	0.91-1.85
BFI mod/severe fatigue (>3)	1.29	0.90-1.84
ASA abnormal (<2)	0.85	0.60-1.20
FS abnormal (>1)	1.64	1.06-2.56
Satitiano's index (1)	1.23	0.85-1.78
Satitiano's index (2+)	1.36	0.70-2.65

\* Bold italics: significant relationship (p < 0.05).

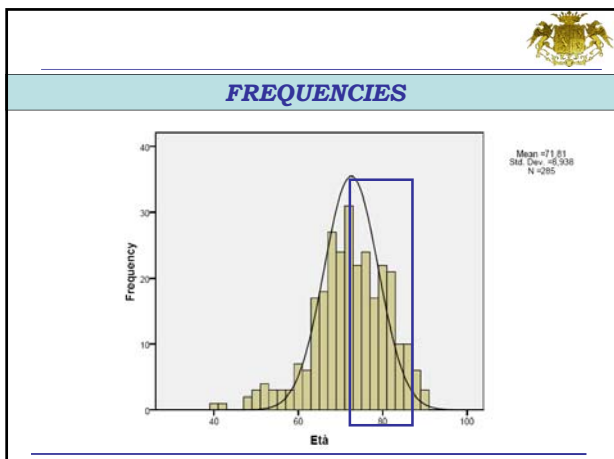
## A Multimodal Perioperative Plan for Radical Cystectomy and Urinary Intestinal Diversion: Effects, Limits and Complications of Early Artificial Nutrition

Massimo Maffezzini,<sup>a</sup> Guido Gerbi, Fabio Campodonico and Donatella Parodi

From the Struttura Complessa di Urologia (MM, FC) and Servizio di Nutrizione (GG, DP), E. O. Ospedali Galliera, Genova, Italy

Parameter	Mean Completed	Mean Not Completed
No. pts	15	13
Lymphocytes (No. × 10 <sup>9</sup> U/ml)		
Preop	1.76	1.90
Postop day 3	0.90	0.97
Postop day 5	1.40	1.20
Total protein (gm/dl):		
Preop	7.35	7.20
Preop day 3	5.15	4.80
Preop day 5	5.50	5.20
Albumin (gm/dl):		
Preop	4.0	3.76
Preop day 3	2.9	2.50
Preop day 5*	3.0	2.47

\* p = 0.00096.

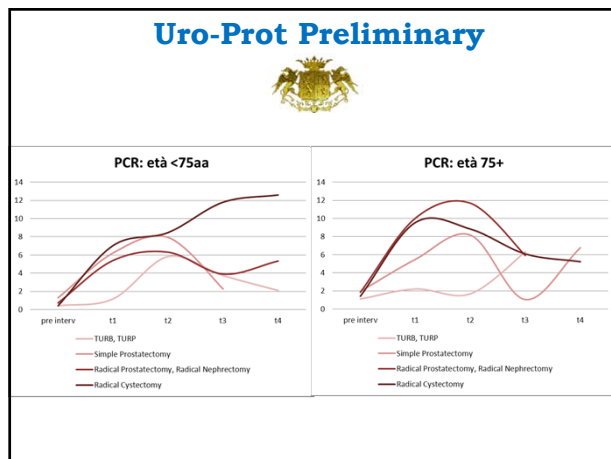
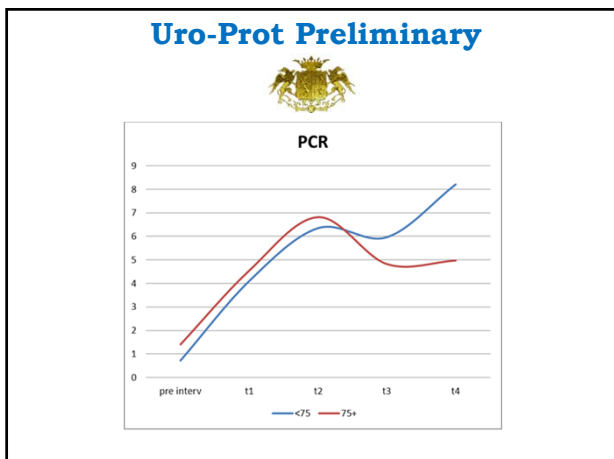
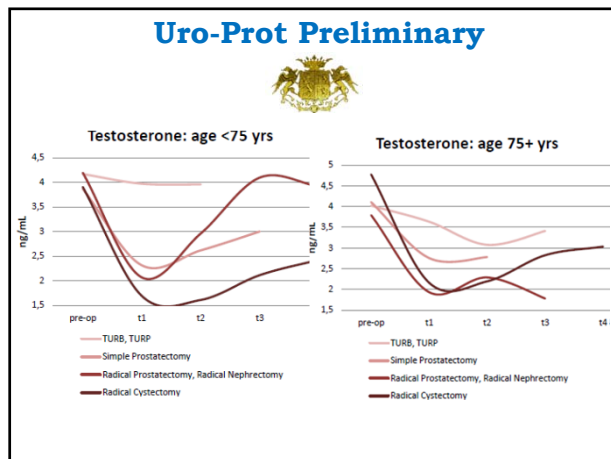
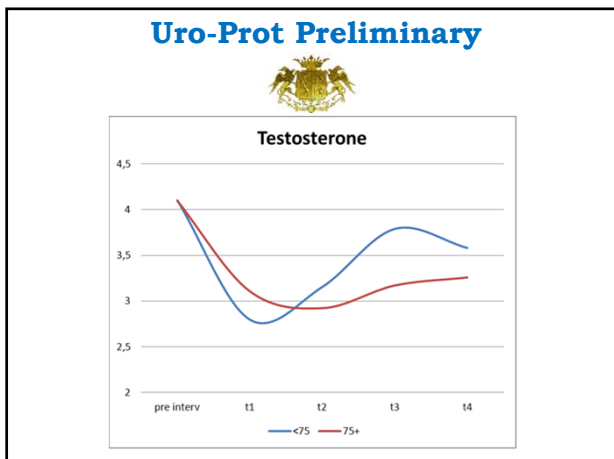


### URO-PROT Study

- TESTOSTERONE
- LH
- FSH
- 17-β-ESTRADIOL
- TSH
- FT3
- FT4
- CORTISOL
- SOMATOMEDINE
- PCR

**Pre -Treatment**  
1°

**Post-Op**  
3° }  
5° }  
7° }







*Summary*

- **Underuse of gold standard treatment, radical cystectomy and continent intestinal urinary reconstruction, due to m & M**
- **Peri- operative *ad hoc* protocols can help in reducing m & M risks**
- **Better assessment of baseline pre-operative parameters can guide individualized peri-operative support**

