



Terapia medica ottimizzata: quando e per quali pazienti

↓
SEMPRE

↓
TUTTI

.... we assigned 1149 patients to undergo PCI with optimal medical therapy (PCI group) and 1138 to receive optimal medical therapy alone (medical-therapy group).

Terapia medica ottimizzata: quando limitarci a essa “soltanto”
e non rivascolarizzare?



...il background.....

In 1994 the Lancet published a meta-analysis of seven randomised trials of CABG versus medical treatment, analysing 2650 patients with a follow-up of ten years.¹ The authors showed there was a survival advantage and marked symptom improvement with CABG as compared with medical therapy in left main stem (LMS) disease, triple vessel disease (3VD) and proximal left anterior descending (LAD) disease. These benefits were enhanced with severe symptoms, a positive stress test and impaired ejection fraction (EF).

Effect of coronary artery bypass graft surgery on survival: overview of 10-year results from randomised trials by the Coronary Artery Bypass Graft Surgery Trialists Collaboration*

Salim Yusuf, David Zucker, Peter Peduzzi, Lloyd D Fisher, Timothy Takaro, J Ward Kennedy, Kathryn Davis, Thomas Killip, Eugene Passamani, Robin Norris, Cynthia Morris, Virendra Mathur, Ed Varnauskas, Thomas C Chalmers

A strategy of initial CABG surgery is associated with lower mortality than one of medical management with delayed surgery if necessary, especially in high-risk and medium-risk patients with stable coronary heart disease. In low-risk patients, the limited data show a non-significant trend towards greater mortality with CABG.

Lancet 1994; 344: 563–70



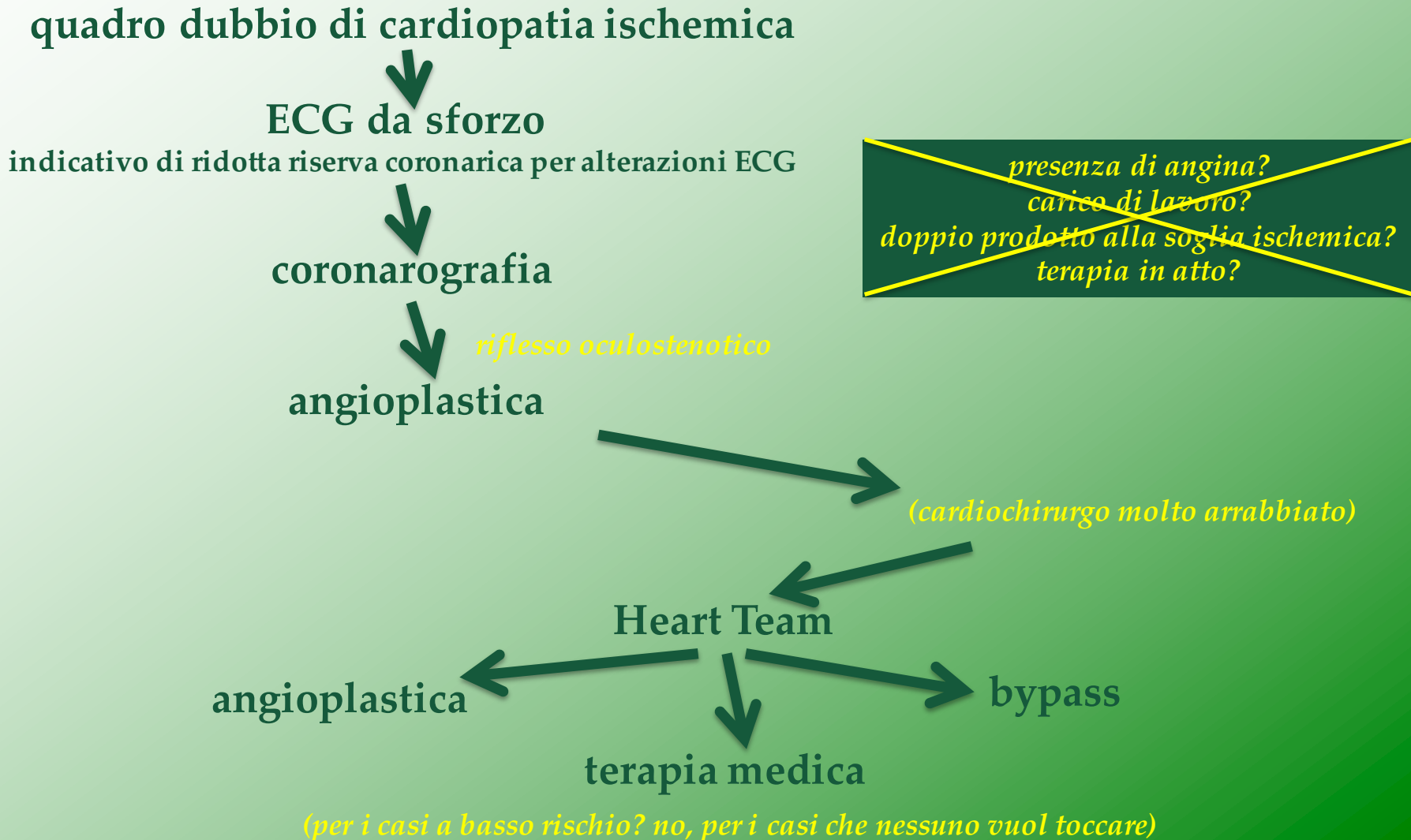
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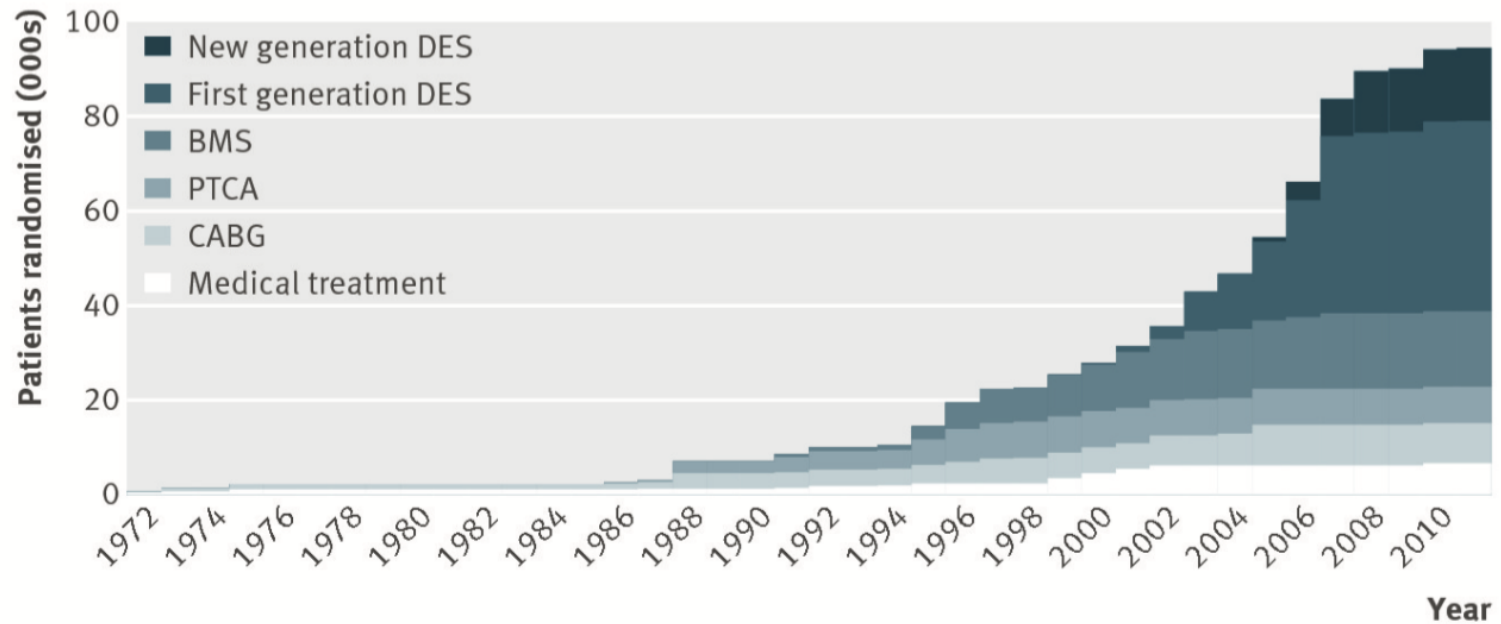
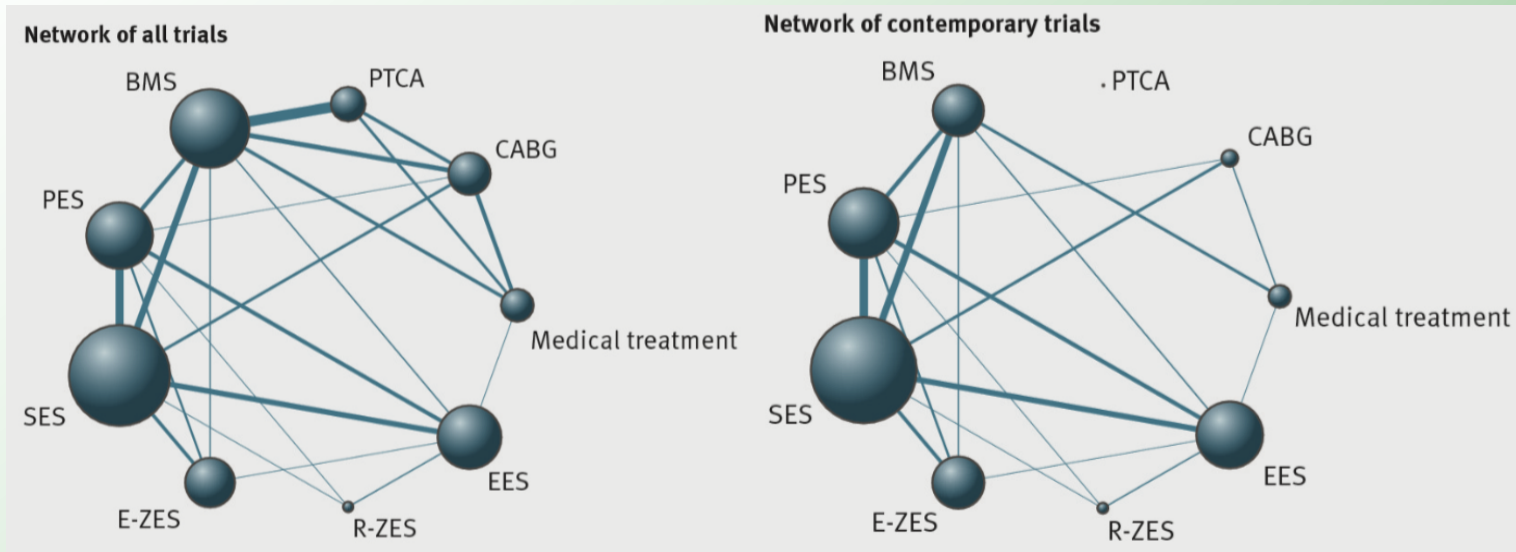
In 1994 the Lancet published a meta-analysis of seven randomised trials of CABG versus medical treatment, analysing 2650 patients with a follow-up of ten years.¹ The authors showed there was a survival advantage and marked symptom improvement with CABG as compared with medical therapy in left main stem (LMS) disease, triple vessel disease (3VD) and proximal left anterior descending (LAD) disease. These benefits were enhanced with severe symptoms, a positive stress test and impaired ejection fraction (EF).

From 1994 to 2002 five major randomised controlled trials of CABG versus PCI were conducted, namely the Randomised Intervention Treatment of Angina (RITA),² the Coronary Angioplasty versus Bypass Revascularisation Investigation (CABRI),³ the German Angioplasty Bypass Surgery Investigation (GABI),⁴ the Bypass Angioplasty Revascularisation Investigation (BARI),⁵ and the Stent or Surgery trial



Algoritmo di trattamento della cardiopatia ischemica stabile nella cardiologia del terzo millennio



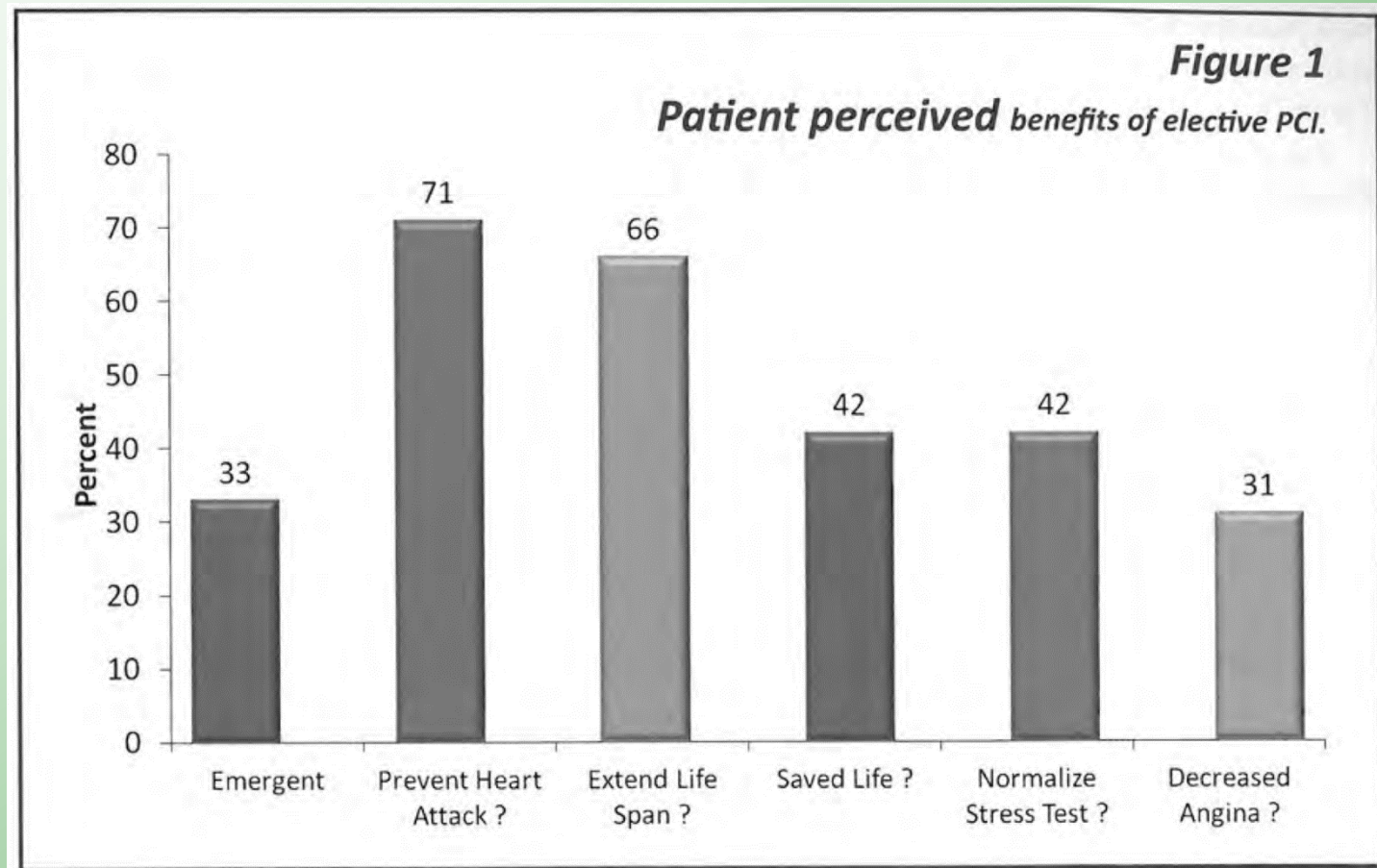




SCIENCE OF MEDICINE

Patients Overestimate the Potential Benefits of Elective Percutaneous Coronary Intervention

by John H. Lee, MD, Kenny Chuu, MD, John Spertus, MD, David J. Cohen, MD, James A. Grantham, MD, Fengming Tang, MS & James H. O'Keefe, MD





Economic analysis of treatments reducing coronary heart disease mortality in England and Wales, 2000–2010

D. FIDAN^{1*}, B. UNAL^{1,2}, J. CRITCHLEY³ and S. CAPEWELL¹

Q J Med 2007; **100**:277–289
doi:10.1093/qjmed/hcm020

¹*From the Division of Public Health, University of Liverpool,* ²*Department of Public Health, Dokuz Eylul University School of Medicine, 35340 Izmir, Turkey,* ³*International Health Research Group, Liverpool School of Tropical Medicine, Liverpool, UK*

Discussion: The cost-effectiveness ratios for standard CHD treatments varied by over 100-fold. Large amounts of NHS funding are being spent on relatively less cost-effective interventions, such as statins for primary prevention, angioplasty and CABG surgery. This merits debate.



Overtesting and Overtreating

A total of 17 medical societies released a list of almost 90 common but often unnecessary tests and procedures, many of them ordered for asymptomatic patients. Twelve of the guidelines issued as part of the "Choosing Wisely" campaign caution physicians that asymptomatic patients probably do not need a given treatment. Two examples are stress echocardiograms, which are not recommended for asymptomatic patients who meet "low-risk" scoring criteria for coronary disease, and computed tomography, which should not be used to evaluate children's minor head injuries. Separately, a national summit involving a wide range of medical groups, as well as hospital organizations, and government agencies, issued a policy paper detailing strategies for dealing with 5 overused treatments that can harm patient safety and quality: antibiotics for the common cold, blood transfusions, ear tubes for children, early-scheduled births, and cardiac stents.

The Year in Medicine 2013: News That Made a Difference

Deborah Flapan; Tanya Priber
December 10, 2013

01 of 17



2013
YEAR IN MEDICINE
2013

THE BIGGEST
MEDICAL NEWS
OF THE YEAR





BMJ

Percutaneous transluminal coronary angioplasty versus medical treatment for non-acute coronary heart disease: meta-analysis of randomised controlled trials

Heiner C Bucher, Peter Hengstler, Christian Schindler and Gordon H Guyatt

BMJ 2000;321:73-77
doi:10.1136/bmj.321.7253.73

Circulation

JOURNAL OF THE AMERICAN HEART ASSOCIATION

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Percutaneous Coronary Intervention Versus Conservative Therapy in Nonacute Coronary Artery Disease A Meta-Analysis

Percutaneous coronary interventions for non-acute coronary artery disease: a quantitative 20-year synopsis and a network meta-analysis

Thomas A Trikalinos, Alawi A Alsheikh-Ali, Athina Tatsioni, Brahmajee K Nallamothu, David M Kent

Percutaneous Coronary Intervention Versus Optimal Medical Therapy in Stable Coronary Artery Disease A Systematic Review and Meta-Analysis of Randomized Clinical Trials

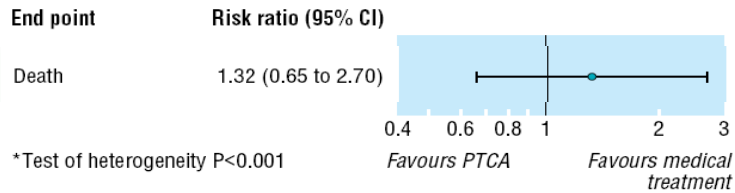
Seema Pursnani, MD, MPH; Frederick Korley, MD; Ravindra Gopaul, MBA, MPH;
Pushkar Kanade, MBBS, MPH; Newry Chandra, MBBS, MPH; Richard E. Shaw, PhD, MA;
Sripal Bangalore, MD, MHA

LESS IS MORE

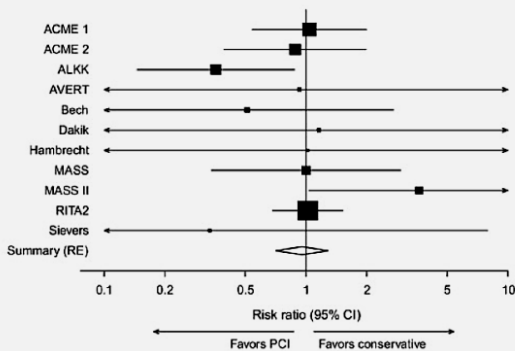
Initial Coronary Stent Implantation With Medical Therapy vs Medical Therapy Alone for Stable Coronary Artery Disease

Meta-analysis of Randomized Controlled Trials

Kathleen Stergiopoulos, MD, PhD; David L. Brown, MD *Arch Intern Med.* 2012;172(4):312-319



A. Death



Study or Subgroup	PCI		OMT		Weight	Risk Ratio		Risk Ratio M-H, Random, 95% CI
	Events	Total	Events	Total		M-H, Random, 95% CI	M-H, Random, 95% CI	
ACME-1 (3yrs) 1992	5	105	7	107	2.5%	0.73	[0.24, 2.22]	
ACME-2 (5yrs) 1997	7	51	9	50	3.7%	0.76	[0.31, 1.89]	
ALKK (5yrs) 2003	6	149	17	151	3.8%	0.36	[0.15, 0.88]	
AVERT (1.5yrs) 1999	1	177	1	164	0.4%	0.93	[0.06, 14.69]	
BARI 2D (5yrs) 2009	86	798	82	807	24.8%	1.06	[0.80, 1.41]	
COURAGE (5yrs) 2007	85	1149	95	1138	25.4%	0.89	[0.67, 1.17]	
DEFER (5yrs) 2001	5	90	6	91	2.4%	0.84	[0.27, 2.66]	
JSAP (3.3yrs) 2008	6	188	7	191	2.7%	0.87	[0.30, 2.54]	
MASS-1 (5yrs) 1995	4	72	6	72	2.1%	0.67	[0.20, 2.26]	
MASS-2 (5yrs) 2004	28	205	35	203	12.6%	0.79	[0.50, 1.25]	
RITA-2 (7yrs) 1997	43	504	43	514	15.3%	1.02	[0.68, 1.53]	
SWISS-2 (10.2yrs) 2007	6	96	22	105	4.2%	0.30	[0.13, 0.70]	
Total (95% CI)		3584		3593	100.0%	0.85	[0.71, 1.01]	
Total events	282		330					
Heterogeneity: $\tau^2 = 0.01$; $\chi^2 = 12.70$, $df = 11$ ($P = 0.31$); $I^2 = 13\%$								
Test for overall effect: $Z = 1.80$ ($P = 0.07$)								

≤ 1 Year								
JSAP (1yr) 2008	0	188	0	191		Not estimable		
ACME-1 (6mo) 1992	0	105	1	107	1.9%	0.34	[0.01, 8.24]	
MASS-1 (1yr) 1995	1	72	0	72	1.9%	3.00	[0.12, 72.44]	
ACME-2 (6mo) 1997	2	51	1	50	3.3%	1.96	[0.18, 20.94]	
ALKK (1yr) 2003	1	149	4	151	3.9%	0.25	[0.03, 2.24]	
MASS-2 (1yr) 2004	9	205	3	203	10.6%	2.97	[0.82, 10.82]	
BARI 2D (1yr) 2009	28	798	16	807	37.6%	1.77	[0.97, 3.25]	
COURAGE (1yr) 2007	23	1149	23	1138	40.8%	0.99	[0.56, 1.76]	
Subtotal (95% CI)		2717		2719	100.0%	1.34	[0.87, 2.08]	
Total events	64		48					
Heterogeneity: $\tau^2 = 0.04$; $\chi^2 = 6.64$, $df = 6$ ($P = 0.36$); $I^2 = 10\%$								
Test for overall effect: $Z = 1.32$ ($P = 0.19$)								

1 to 5 years								
AVERT (1.5yrs) 1999	1	177	1	164	4.0%	0.93	[0.06, 14.69]	
DEFER (2yrs) 2001	2	90	4	91	10.9%	0.51	[0.09, 2.69]	
ACME-1 (3yrs) 1992	5	105	7	107	24.4%	0.73	[0.24, 2.22]	
JSAP (3.3yrs) 2008	6	188	7	191	26.4%	0.87	[0.30, 2.54]	
RITA-2 (2.7yrs) 1997	11	504	7	514	34.4%	1.60	[0.63, 4.10]	
Subtotal (95% CI)		1064		1067	100.0%	0.97	[0.56, 1.69]	
Total events	25		26					
Heterogeneity: $\tau^2 = 0.00$; $\chi^2 = 1.97$, $df = 4$ ($P = 0.74$); $I^2 = 0\%$								
Test for overall effect: $Z = 0.10$ ($P = 0.92$)								

≥ 5 years								
MASS-1 (5yrs) 1995	4	72	6	72	3.1%	0.67	[0.20, 2.26]	
DEFER (5yrs) 2001	5	90	6	91	3.5%	0.84	[0.27, 2.66]	
ACME-2 (5yrs) 1997	7	51	9	50	5.3%	0.76	[0.31, 1.89]	
ALKK (5yrs) 2003	6	149	17	151	5.4%	0.36	[0.15, 0.88]	
SWISS-2 (10.2yrs) 2007	6	96	22	105	5.8%	0.30	[0.13, 0.70]	
MASS-2 (5yrs) 2004	28	205	35	203	14.5%	0.79	[0.50, 1.25]	
RITA-2 (7yrs) 1997	43	504	43	514	16.7%	1.02	[0.68, 1.53]	
BARI 2D (5yrs) 2009	86	798	82	807	22.7%	1.06	[0.80, 1.41]	
COURAGE (5yrs) 2007	85	1149	95	1138	23.0%	0.89	[0.67, 1.17]	
Subtotal (95% CI)		3114		3131	100.0%	0.82	[0.65, 1.02]	
Total events	270		315					
Heterogeneity: $\tau^2 = 0.04$; $\chi^2 = 12.59$, $df = 8$ ($P = 0.13$); $I^2 = 36\%$								
Test for overall effect: $Z = 1.76$ ($P = 0.08$)								

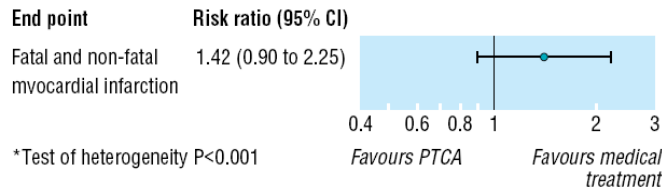
Test for subgroup differences: $\chi^2 = 3.98$, $df = 2$ ($P = 0.14$), $I^2 = 49.7\%$

0.02 0.1 1 10 50
Favours PCI Favours OMT

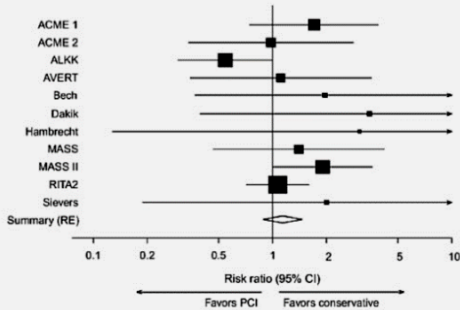
Source	OR (95% CI)	P Value	OR (95% CI)
TOAT ¹⁶	2.20 (0.19-25.52)	.53	
DECOP ¹⁸	0.83 (0.31-2.23)	.71	
OAT ⁵	1.04 (0.76-1.42)	.80	
MASS II ¹⁴	0.95 (0.56-1.62)	.86	
COURAGE ⁶	0.88 (0.65-1.19)	.40	
JSAP ²⁶	0.85 (0.28-2.58)	.78	
BARI 2D ⁷	1.06 (0.79-1.43)	.70	
	0.98 (0.83-1.15)	.82	

Heterogeneity $Q = 1.52$ ($P = .96$); $I^2 = 0.00$

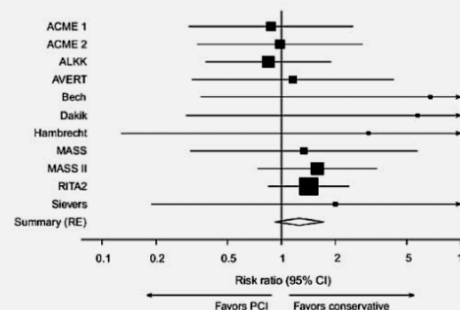
Favours Stent Favours Medical



B. Cardiac death or myocardial infarction

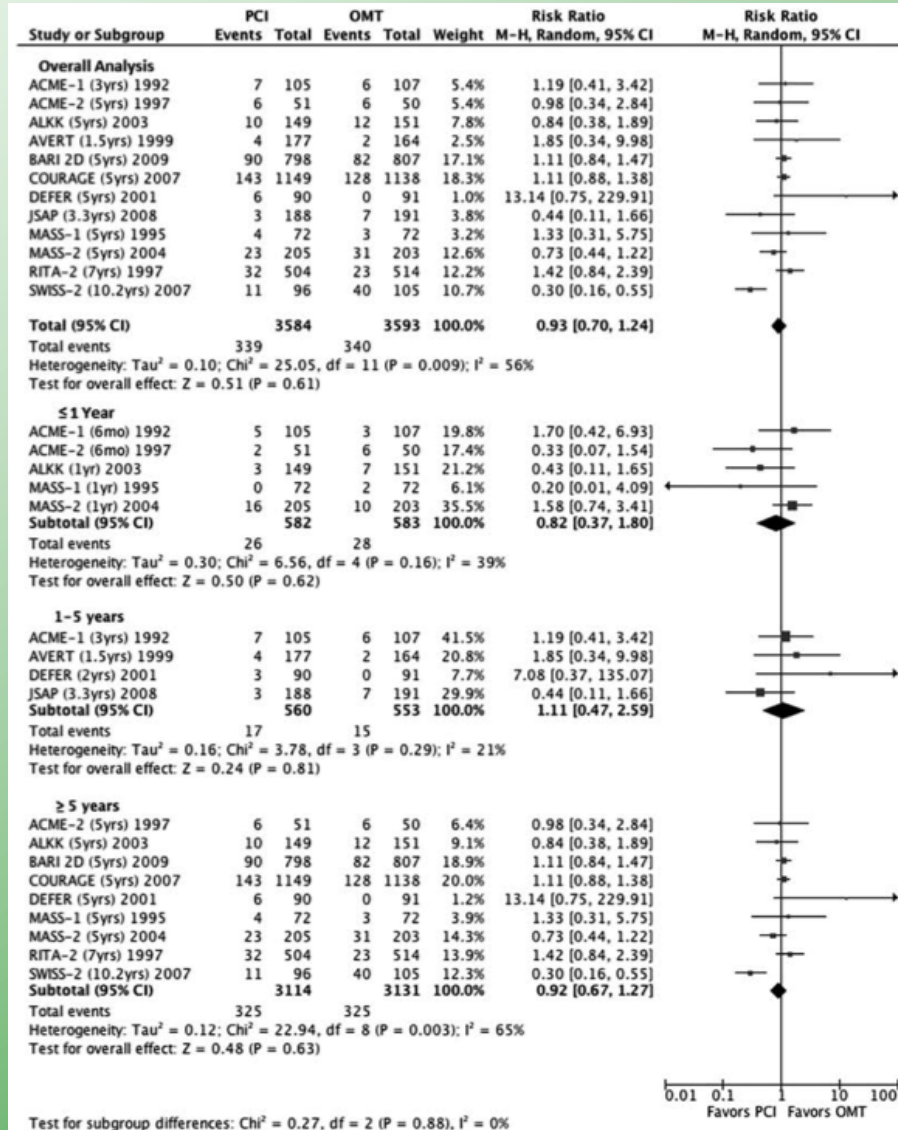
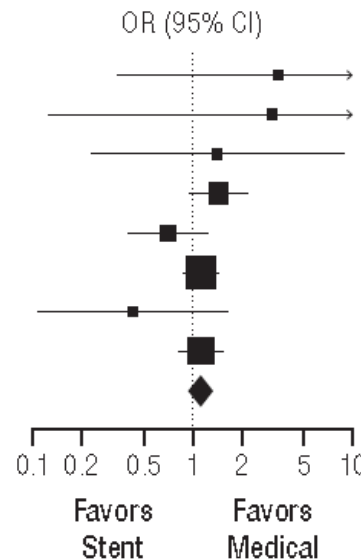


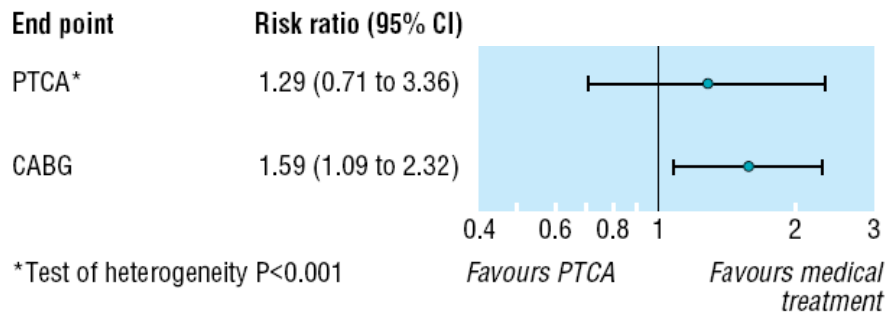
C. Non-fatal myocardial infarction



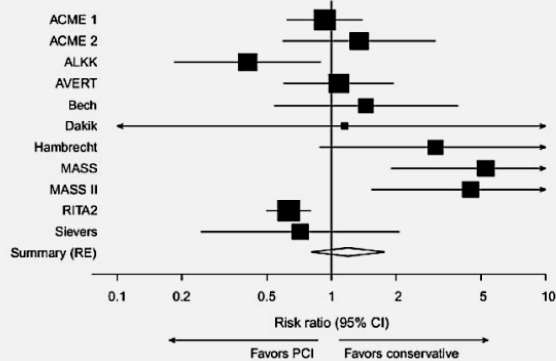
Source	OR (95% CI)	P Value	OR (95% CI)
TOAT ¹⁶	3.41 (0.34-34.65)	.30	
Hambrecht et al ¹⁷	3.12 (0.12-78.45)	.49	
DECOPI ¹⁸	1.43 (0.23-8.73)	.70	
OAT ⁵	1.45 (0.96-2.19)	.08	
MASS II ¹⁴	0.70 (0.39-1.25)	.23	
COURAGE ⁶	1.12 (0.87-1.45)	.38	
JSAP ²¹	0.42 (0.11-1.65)	.21	
BARI 2D ⁷	1.12 (0.82-1.54)	.47	
	1.12 (0.93-1.34)	.22	

Heterogeneity $Q = 7.36$ ($P = .39$); $I^2 = 4.86$

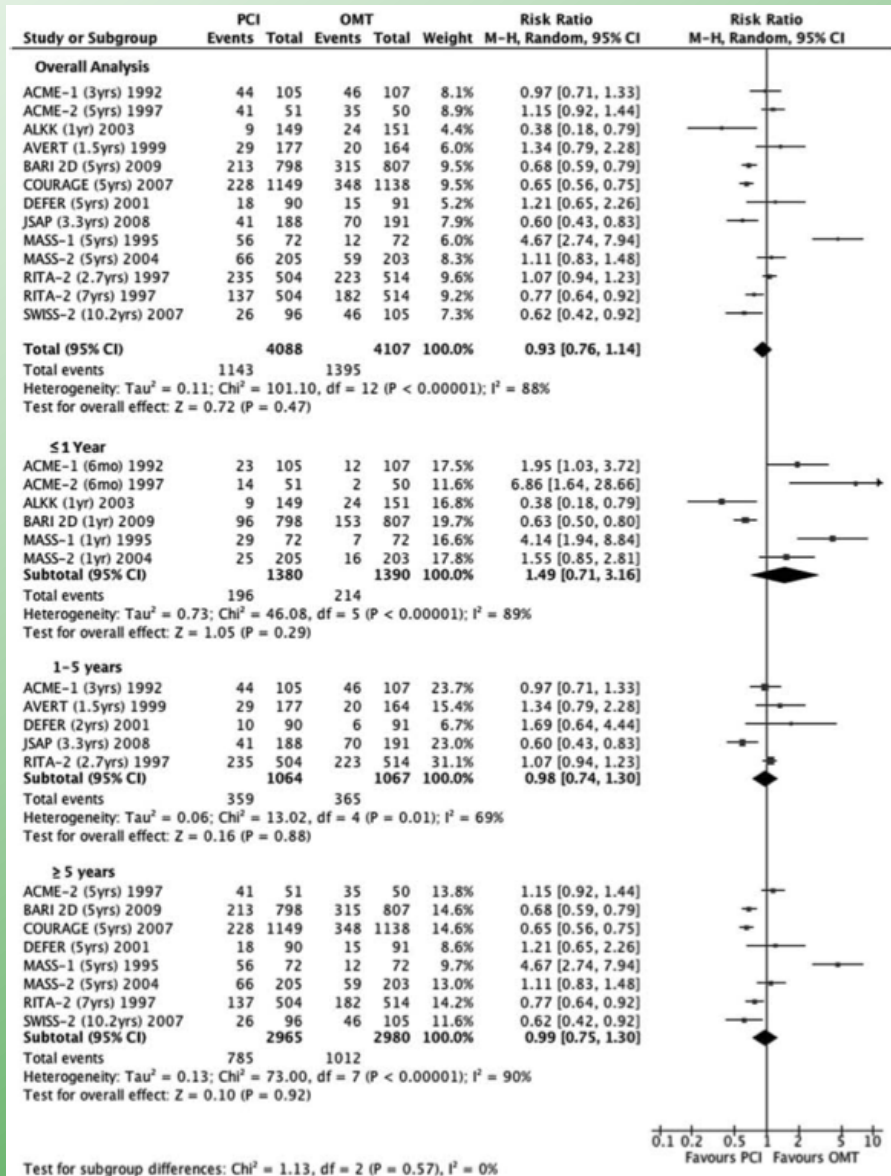
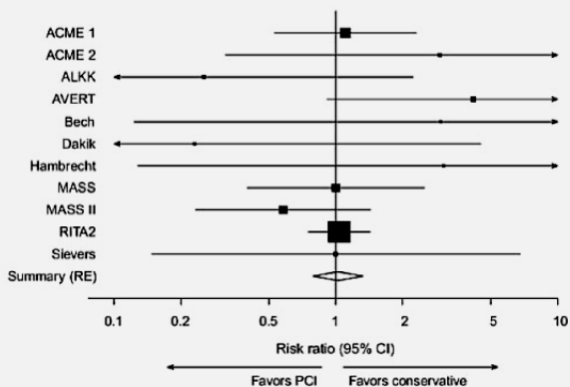




E. Percutaneous coronary intervention



D. Coronary artery bypass grafting





In non-acute coronary disease percutaneous transluminal coronary angioplasty may result in greater relief from angina than medical treatment, though the magnitude of effect varies considerably

The procedure may lead to an increase in coronary bypass grafting compared with medical treatment and is unlikely to reduce non-fatal myocardial infarction, death, or repeated angioplasty

The procedure should be used only in patients with non-acute coronary in whom angina cannot be controlled by medical treatment, though coronary artery bypass grafting is an alternative

We conclude that for patients with chronic CAD and good left ventricular function, PCI does not confer any clear benefit in terms of long-term hard clinical outcomes compared with conservative medical treatment.

PCI may be indicated in special circumstances, eg, relatively early after MI.

By comparing the benefits, if any, against cost considerations, we believe that many percutaneous interventions that currently are performed in patients with nonacute CAD probably are not justified

Conclusion: Initial stent implantation for stable CAD shows no evidence of benefit compared with initial medical therapy for prevention of death, nonfatal MI, unplanned revascularization, or angina.

Arch Intern Med. 2012;172(4):312-319

Conclusions—In this most rigorous and comprehensive analysis in patients with stable coronary artery disease, PCI, as compared with OMT, did not reduce the risk of mortality, cardiovascular death, nonfatal myocardial infarction, or revascularization. PCI, however, provided a greater angina relief compared with OMT alone, larger studies with sufficient power are required to prove this conclusively. (*Circ Cardiovasc Interv.* 2012;5:476-490.)

Interpretation Sequential innovations in the catheter-based treatment of non-acute coronary artery disease showed no evidence of an effect on death or myocardial infarction when compared with medical therapy. These results lend support to present recommendations to optimise medical therapy as an initial management strategy in patients with this disease.



ONLINE FIRST

Use of Drug-Eluting Stents as a Function of Predicted Benefit

Clinical and Economic Implications of Current Practice

Amit P. Amin, MD, MSc; John A. Spertus, MD, MPH; David J. Cohen, MD, MSc; Adnan Chhatriwalla, MD; Kevin F. Kennedy, MS; Katherine Vilain, MS; Adam C. Salisbury, MD, MSc; Lakshmi Venkitachalam, PhD; Sue Min Lai, PhD; Laura Mauri, MD; Sharon-Lise T. Normand, PhD; John S. Rumsfeld, MD, PhD; John C. Messenger, MD; Robert W. Yeh, MD, MSc

Conclusions: Use of DES in the United States varies widely among physicians, with only a modest correlation to patients' risk of restenosis. Less DES use among patients with low risk of restenosis has the potential for significant cost savings for the US health care system while minimally increasing restenosis events.

Interpretation Sequential innovations in the catheter-based treatment of non-acute coronary artery disease showed no evidence of an effect on death or myocardial infarction when compared with medical therapy. These results lend support to present recommendations to optimise medical therapy as an initial management strategy in patients with this disease.



Revascularisation versus medical treatment in patients with stable coronary artery disease: network meta-analysis

OPEN ACCESS

Stephan Windecker, Stefan Stortecky, Giulio G Stefanini, Bruno R daCosta, Anne Wilhelmina Rutjes, Marcello Di Nisio, Maria G Siletta, Ausilia Maione, Fernando Alfonso, Peter M Clemmensen, Jean-Philippe Collet, Jochen Cremer, Volkmar Falk, Gerasimos Filippatos, Christian Hamm, Stuart Head, Arie Pieter Kappetein, Adnan Kastrati, Juhani Knuuti, Ulf Landmesser, Günther Laufer, Franz-Joseph Neumann, Dimitri Richter, Patrick Schauer, Miguel Sousa Uva, David P Taggart, Lucia Torracca, Marco Valgimigli, William Wijns, Adam Witkowski, Philippe Kolh, Peter Juni

Conclusions

Among patients with stable coronary artery disease, coronary artery bypass grafting reduces the risk of death, myocardial infarction, and the need for revascularisation compared with medical treatment. All stent based percutaneous coronary interventions reduce the need for revascularisation to a variable degree. Our results provide evidence for improved survival with new generation drug eluting stents but no other percutaneous coronary intervention compared with medical treatment.

for generating hypotheses, I agree with most observers that the indirect comparisons that are used in this approach should not outweigh more direct comparisons of the treatments at issue.⁵

Brown DL. Review: CABG or stents compared with medical therapy in stable coronary artery disease. *Ann Intern Med* 2014;161:JC10.

All cause mortality

(59 trials; 71 931 patients)

- CABG v medical treatment
- BMS v medical treatment
- PES v medical treatment
- SES v medical treatment
- E-ZES v medical treatment
- R-ZES v medical treatment
- EES v medical treatment

Myocardial infarction

(58 trials; 70 668 patients)

- CABG v medical treatment
- BMS v medical treatment
- PES v medical treatment
- SES v medical treatment
- E-ZES v medical treatment
- R-ZES v medical treatment
- EES v medical treatment

Death or myocardial infarction

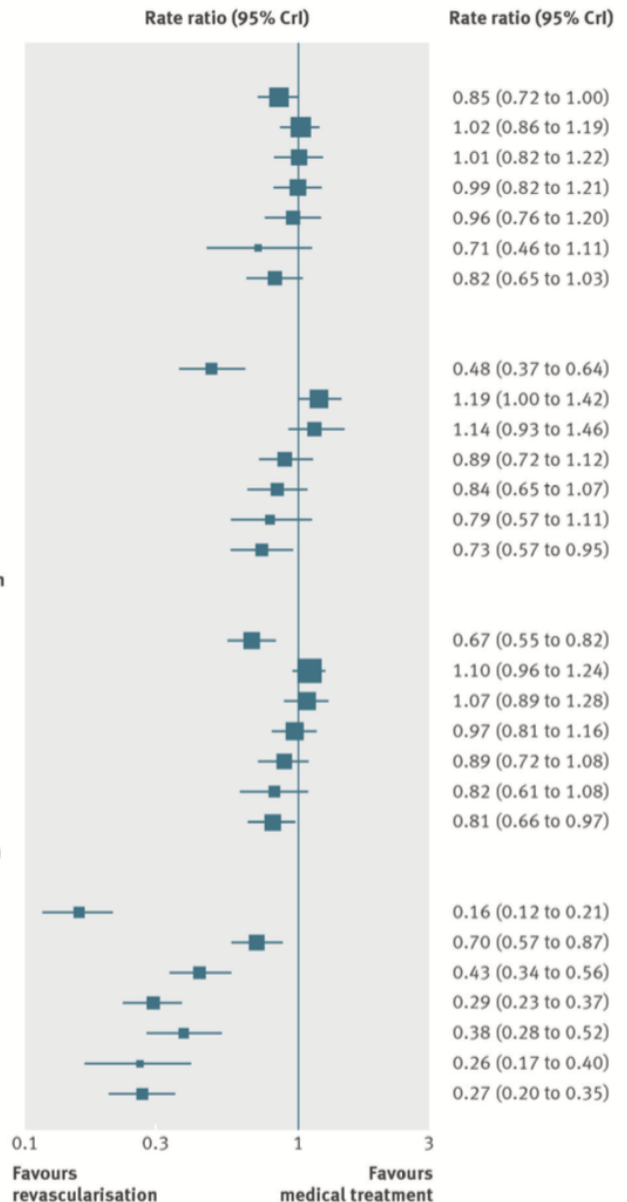
(57 trials; 70 419 patients)

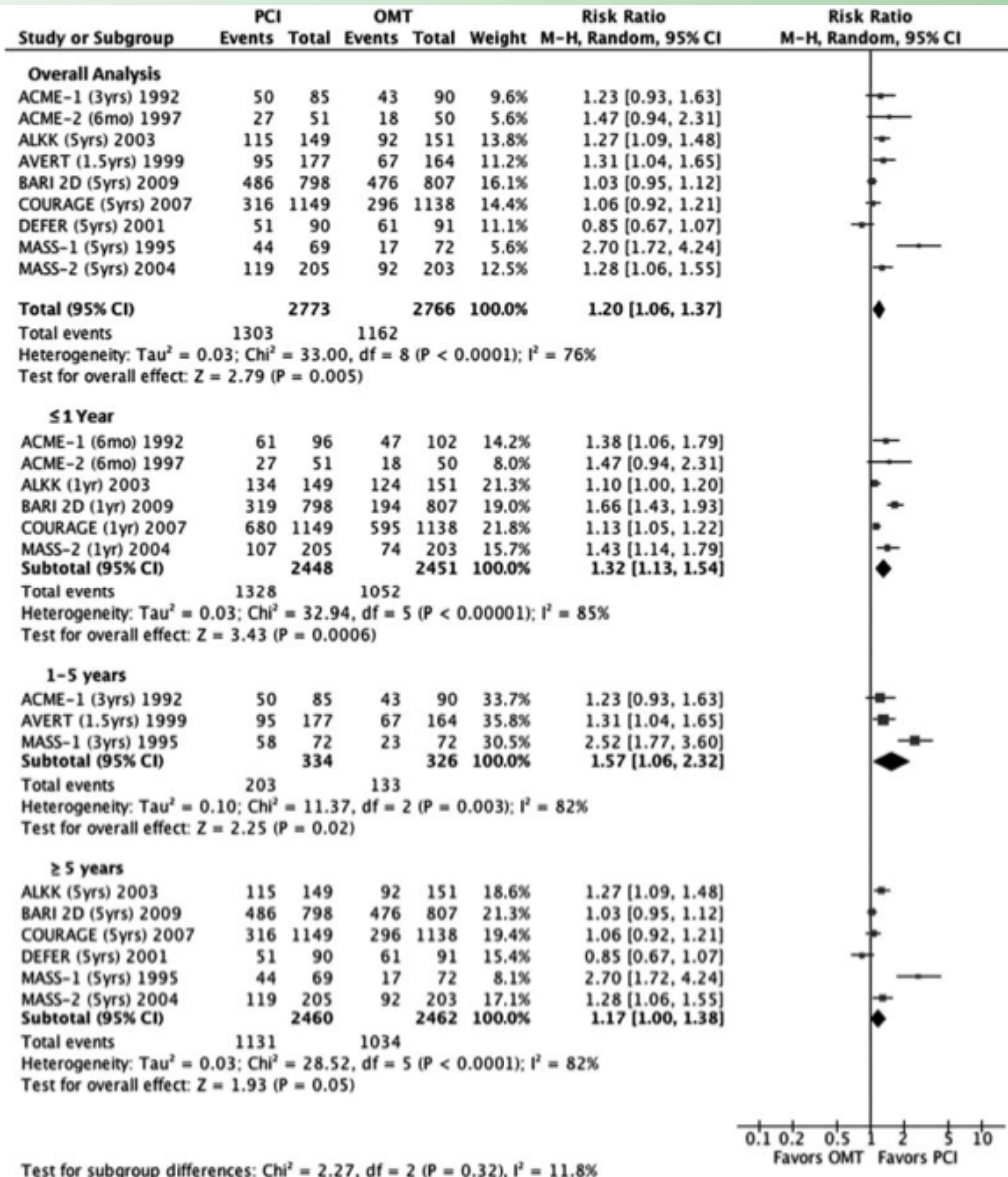
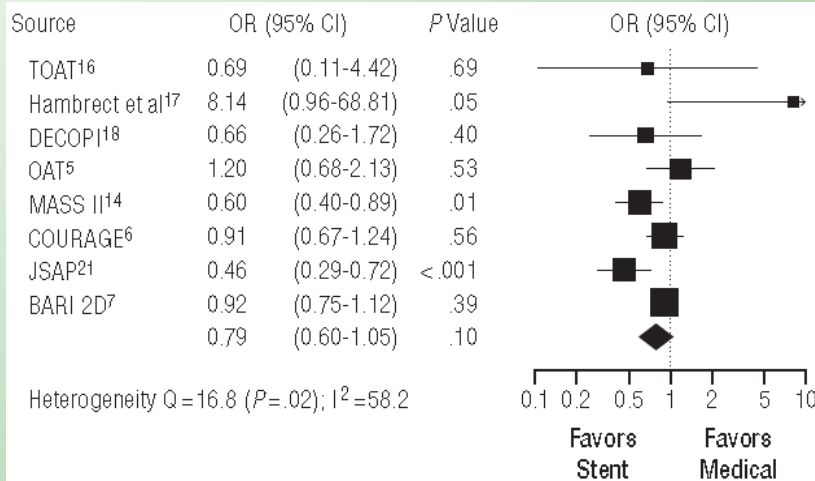
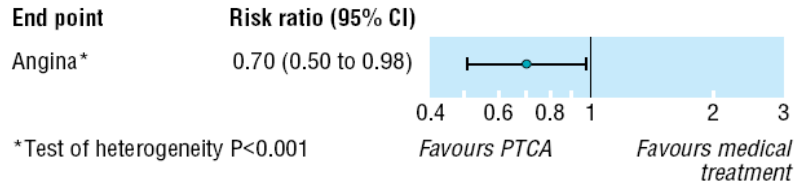
- CABG v medical treatment
- BMS v medical treatment
- PES v medical treatment
- SES v medical treatment
- E-ZES v medical treatment
- R-ZES v medical treatment
- EES v medical treatment

Subsequent revascularisation

(58 trials; 69 620 patients)

- CABG v medical treatment
- BMS v medical treatment
- PES v medical treatment
- SES v medical treatment
- E-ZES v medical treatment
- R-ZES v medical treatment
- EES v medical treatment







Circulation

JOURNAL OF THE AMERICAN HEART ASSOCIATION



2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS Guideline for the Diagnosis and Management of Patients With Stable Ischemic Heart Disease: Executive Summary: A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines, and the American College of Physicians, American Association for Thoracic Surgery, Preventive Cardiovascular Nurses Association, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons

Table 7. Revascularization to Improve Symptoms With Significant Anatomic ($\geq 50\%$ Left Main or $\geq 70\%$ Non-Left Main CAD) or Physiological (FFR ≤ 0.80) Coronary Artery Stenoses

Clinical Setting	COR	LOE
≥ 1 significant stenoses amenable to revascularization and unacceptable angina despite GDMT	1—CABG 1—PCI	A
≥ 1 significant stenoses and unacceptable angina in whom GDMT cannot be implemented because of medication contraindications, adverse effects, or patient preferences	IIa—CABG IIa—PCI	C C
Previous CABG with ≥ 1 significant stenoses associated with ischemia and unacceptable angina despite GDMT	IIa—PCI	C



Effect of PCI on Quality of Life in Patients with Stable Coronary Disease

William S. Weintraub, M.D., John A. Spertus, M.D., M.P.H., Paul Kolm, Ph.D., David J. Maron, M.D., Zefeng Zhang, M.D., Ph.D., Claudine Jurkowitz, M.D., M.P.H., Wei Zhang, M.S., Pamela M. Hartigan, Ph.D., Cheryl Lewis, R.N., Emir Veledar, Ph.D., Jim Bowen, B.S., Sandra B. Dunbar, D.S.N., Christi Deaton, Ph.D., Stanley Kaufman, M.D., Robert A. O'Rourke, M.D., Ron Goeree, M.S., Paul G. Barnett, Ph.D., Koon K. Teo, M.D., and William E. Boden, M.D., for the COURAGE Trial Research Group*

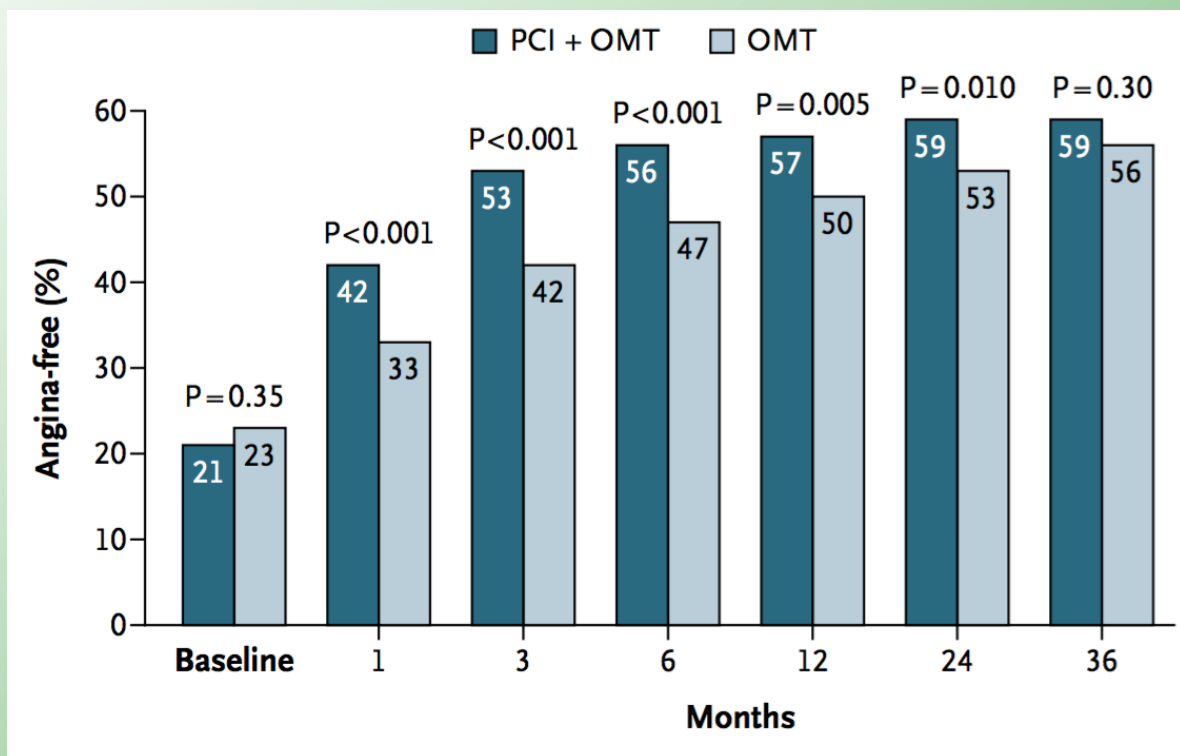
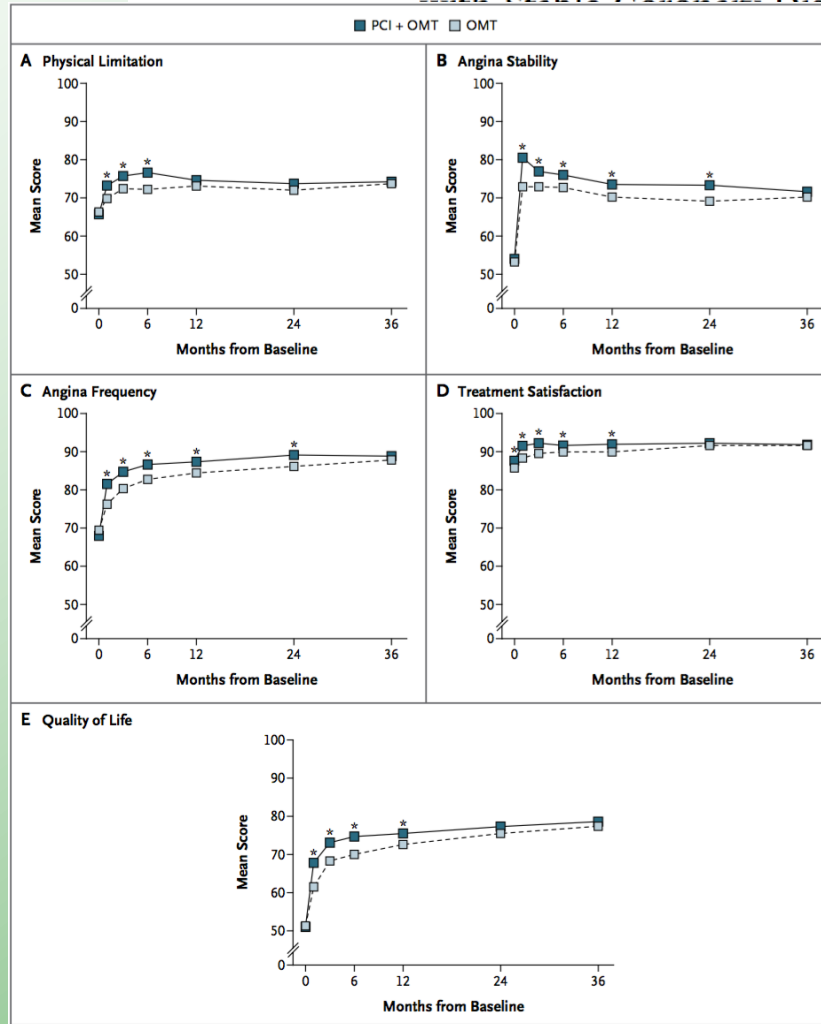


Figure 1. Freedom from Angina over Time as Assessed with the Angina-Frequency Scale of the Seattle Angina Questionnaire, According to Treatment Group.



Effect of PCI on Quality of Life in Patients with Stable Coronary Disease



Ph.D., David J. Maron, M.D.,
M.S., Pamela M. Hartigan, Ph.D.,
ar, D.S.N., Christi Deaton, Ph.D.,
. Barnett, Ph.D., Koon K. Teo, M.D.,
Search Group*

Figure 2. Mean Scores over Time in Five Domains of the Seattle Angina Questionnaire.

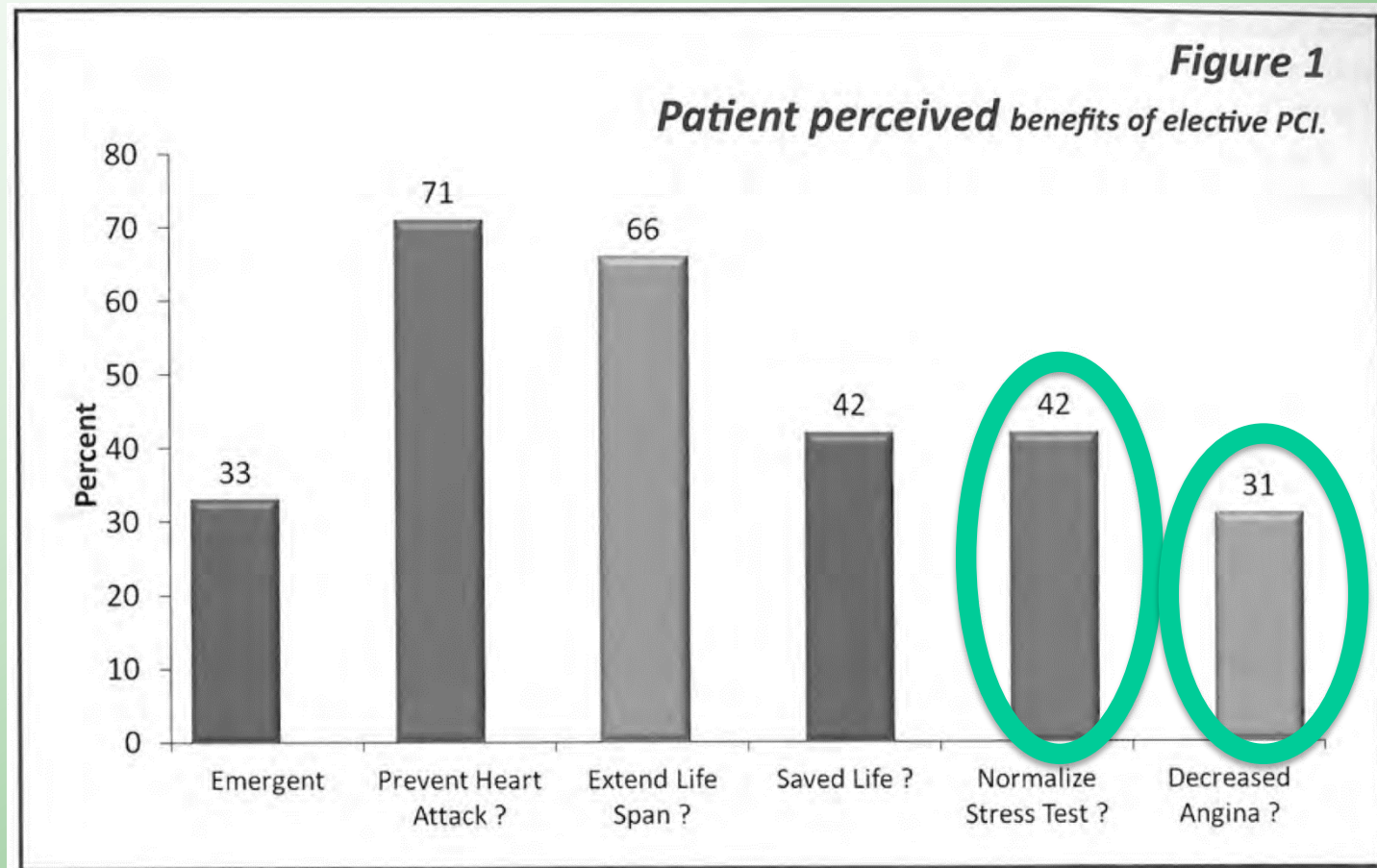
An asterisk indicates $P < 0.01$ for the difference between treatment groups. OMT denotes optimal medical therapy, and PCI percutaneous coronary intervention.



SCIENCE OF MEDICINE

Patients Overestimate the Potential Benefits of Elective Percutaneous Coronary Intervention

by John H. Lee, MD, Kenny Chuu, MD, John Spertus, MD, David J. Cohen, MD, James A. Grantham, MD, Fengming Tang, MS & James H. O'Keefe, MD

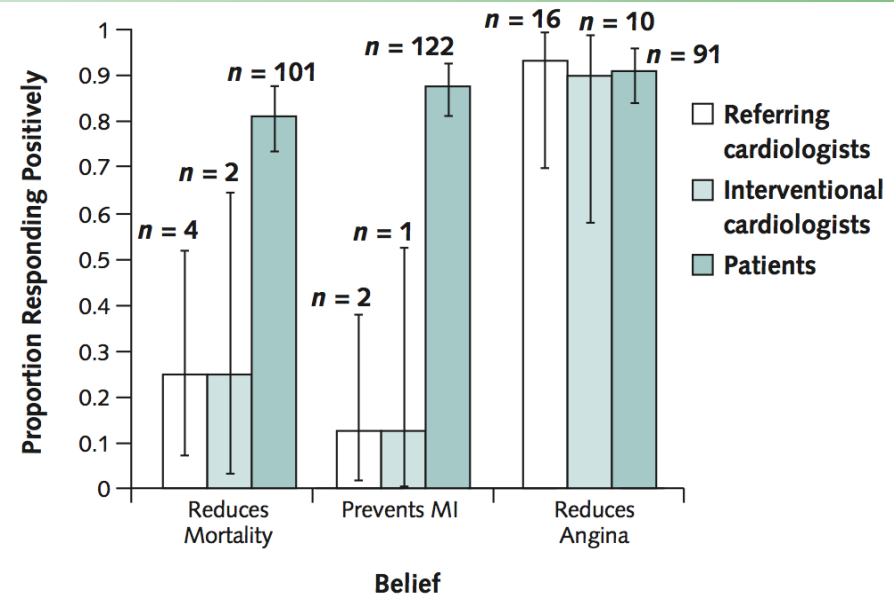
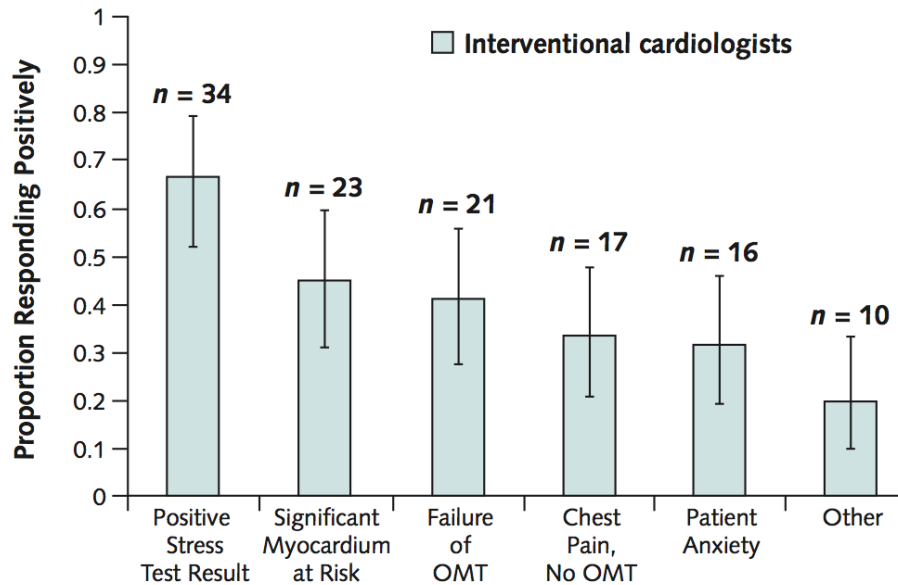




Patients' and Cardiologists' Perceptions of the Benefits of Percutaneous Coronary Intervention for Stable Coronary Disease

Michael B. Rothberg, MD, MPH; Senthil K. Sivalingam, MD; Javed Ashraf, MD, MPH; Paul Visintainer, PhD; John Joelson, MD; Reva Kleppel, MSW, MPH; Neelima Vallurupalli, MD; and Marc J. Schweiger, MD

Ann Intern Med. 2010;153:307-313.



After publication of COURAGE, many cardiologists no longer believe that PCI will prevent MI in stable coronary disease but continue to perform elective PCI for other reasons, most often after an abnormal stress test result. In

contrast, most patients undergoing the procedure still believe that PCI will prevent infarction or death. Further efforts should be directed toward improving communication of medical evidence to help patients make informed decisions about this common procedure.



Perceptions of Benefit and Risk of Patients Undergoing First-time Elective Percutaneous Coronary Revascularization

Eric S. Holmboe, MD, David A. Fiellin, MD, Elizabeth Cusanelli, MSN, Michael Remetz, MD, Harlan M. Krumholz, MD

J GEN INTERN MED 2000;15:632-637.

In conclusion, patients often cite factors other than symptoms as major reasons to undergo PCR, and many patients may have expectations about the long-term benefits of elective PCR that are not supported by the medical literature. Furthermore, the majority of patients were not aware of the potential risks, although they expressed a strong interest in participating in the decision to have PCR. More work is needed to define the optimal strategy to educate CAD patients, confront patient fears and unrealistic expectations about PCR, and whether specific interventions addressing these issues will change patient preferences in treatment decisions.

Interventional Cardiology

Understanding of the benefits of coronary revascularization procedures among patients who are offered such procedures

Jeff Whittle, MD, MPH,^a Joseph Conigliaro, MD, MPH,^b Chester B. Good, MD, MPH,^{c,d} Mary E. Kelley, PhD,^c and Melissa Skanderson, MSW^{c,d} Milwaukee, WI; Lexington, KY; Pittsburgh, PA; and Atlanta, GA

Conclusions Patients have more optimistic expectations about benefits of coronary revascularization than the cardiologist offering the procedure. Further research should confirm this finding and clarify how physician-patient disagreement regarding the benefits of coronary revascularization affects patient participation in decision making. (Am Heart J 2007;154:662-8.)



BMJ 2014;349:g5309 doi: 10.1136/bmj.g5309 (Published 8 September 2014)

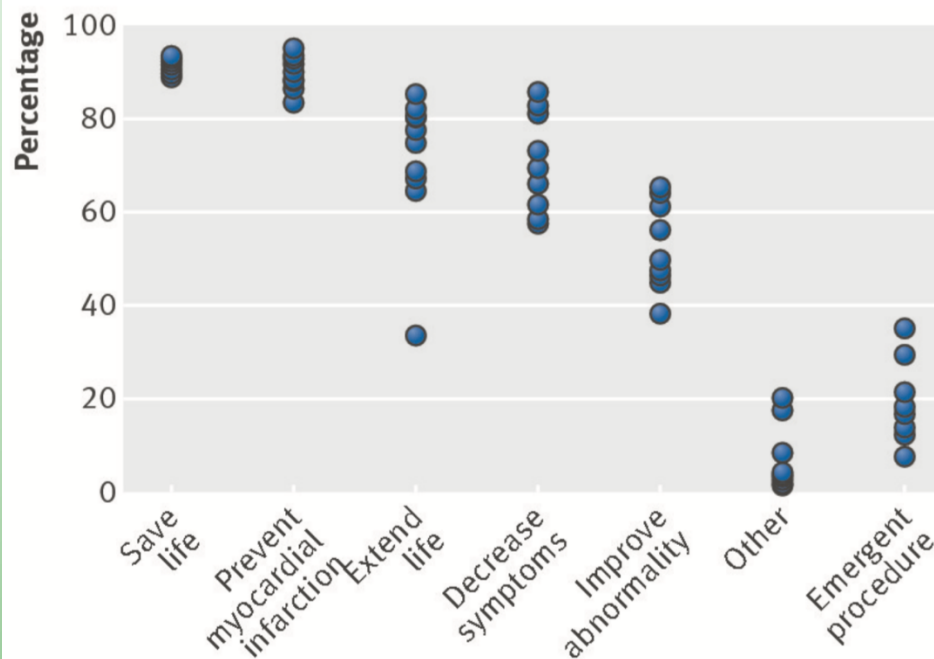
Variation in patients' perceptions of elective percutaneous coronary intervention in stable coronary artery disease: cross sectional study

OPEN ACCESS

Faraz Kureshi *NIH T-32 cardiovascular outcomes research fellow*^{1,2}, Philip G Jones *senior statistician*¹, Donna M Buchanan *cardiovascular outcomes researcher/manager*^{1,2}, Mouin S Abdallah *cardiology fellow*^{1,2}, John A Spertus *Lauer/Missouri endowed chair and tenured professor of medicine*^{1,2}

Conclusions

We interviewed a large cohort of patients with stable coronary artery disease undergoing an elective percutaneous coronary intervention across multiple US hospitals and found that patients substantially overestimate the benefits of the procedure. Most importantly, we found that after adjusting for patient and operator characteristics, there was substantial variation in patients' perceptions across sites, but not across operators within a site. Coupled with the wide variability in the ways in which hospitals obtain informed consent, these findings suggest that hospital level interventions into the structure and processes of obtaining informed consent for percutaneous coronary intervention might improve patient understanding.





INVITED COMMENTARY

Mounting Evidence for Lack of PCI Benefit in Stable Ischemic Heart Disease

What More Will It Take to Turn the Tide of Treatment?

Informed Strategies for Treating Coronary Disease

More than 1 million stents are implanted annually in the United States to treat coronary disease, in the continuing hope that they are more effective than medical therapy in preventing heart attacks and prolonging life, despite abundant evidence to the contrary. Despite the highly publicized COURAGE findings, fewer than half of Americans with stable CAD who undergo stent placement have received medical therapy first. This latest meta-analysis, looking at recent PCI trials, again finds

no benefit of PCI compared with medical therapy. Increasing use of American College of Cardiology Appropriate Use Criteria and realigning incentives for evidence-based approach will help improve quality of care. A “PCI first” strategy for patients with stable CAD gets a *Less Is More* designation because there is no known benefit and there are definite harms.

Rita F. Redberg, MD, MSc
Editor



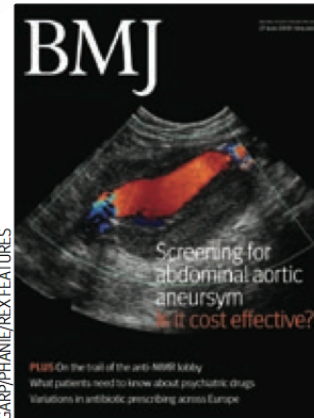
Editor's Choice

How to avoid unnecessary interventions

BMJ 2009; 339 doi: <http://dx.doi.org/10.1136/bmj.b3304> (Published 13 August 2009)
Cite this as: BMJ 2009;339:b3304

Fiona Godlee, editor

"Avoiding unnecessary intervention makes sense for patients because almost all treatments and tests have the potential to do harm. It also makes sense for health care, especially in times of financial constraint"



CARP/PHANIE/REX FEATURES

Editorial, p 1509
Research, pp 1538, 1542

EDITOR'S CHOICE

Less medicine is more

It would be fair to say that the *BMJ* tends towards less rather than more medicine. We've published a lot over the years on the risks of overtreatment and the problems of medicalisation and disease mongering. It's not a bad default to have in times of economic hardship, although I hope we also do our bit to highlight evidence of undertreatment where it exists. In a recent letter David Oliver warned that, although ageing should not be routinely medicalised, there is a risk of "socialising" treatable problems in older people such as incontinence and falls (*BMJ* 2009;338:b1200).

With that proviso, I'm drawn to several articles this week that champion the view that less is more, and in particular that if you give patients complete and unbiased information about the likely effects of an intervention they may well say no to it. Iona Heath sets us off on this tack, writing about her decision to turn down mammography screening (p 1534). She thinks the evidence is pretty clear that the potential harms of overdiagnosis outweigh the potential benefits of an accurate early diagnosis. But she's worried that her decision is based on information that her patients can't easily find because the invitation leaflet doesn't mention harms.



BMJ

Editor's Choice

How to avoid unnecessary interventions

BMJ 2009; 339 doi: <http://dx.doi.org/10.1136/bmj.b3304> (Published 13 August 2009)
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Fiona Godlee, editor

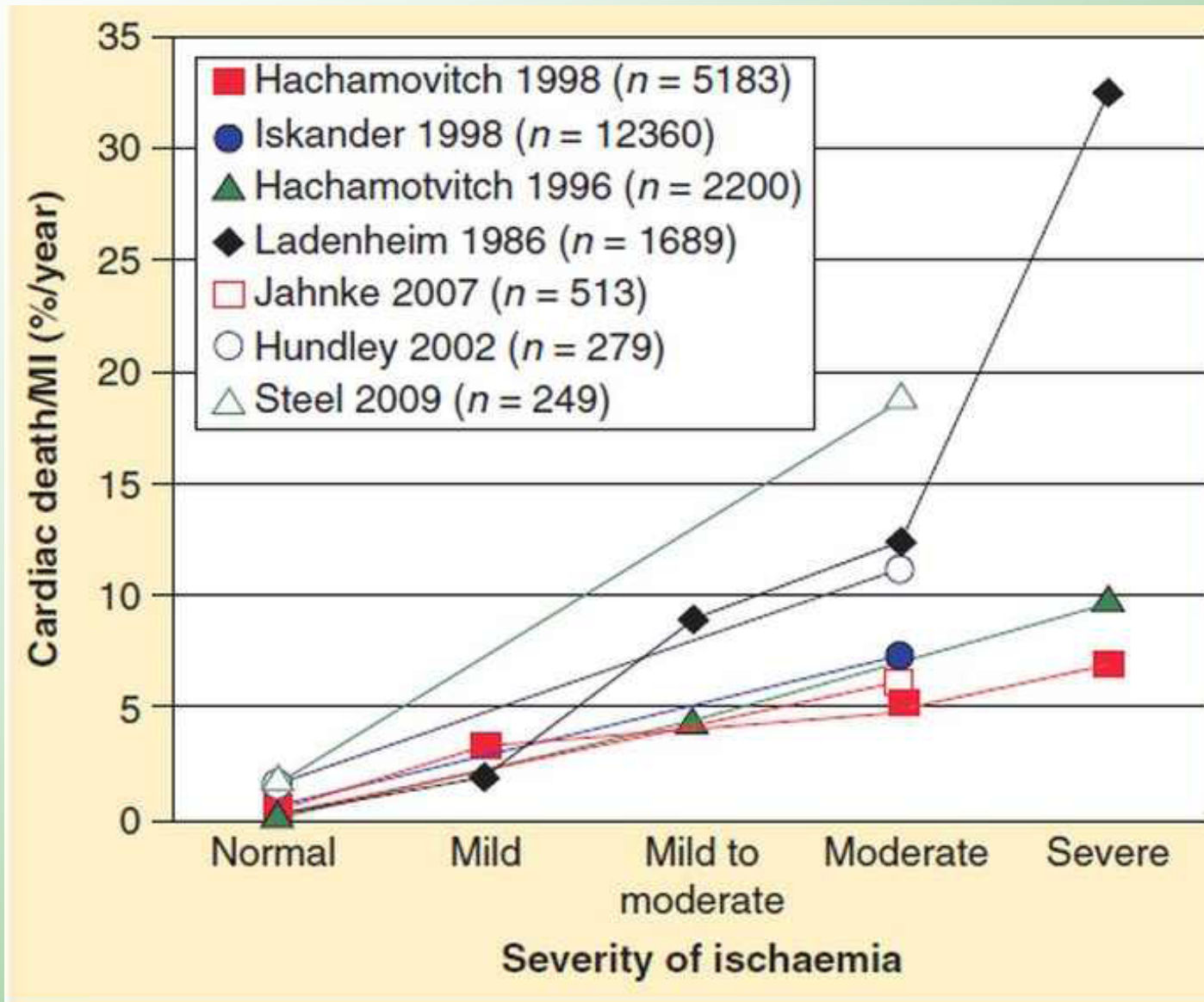
"Avoiding unnecessary intervention makes sense for patients because almost all treatments and tests have the potential to do harm. It also makes sense for health care, especially in times of financial constraint"

UNNECESSARY INTERVENTIONS

If less is more, how much is zero?

If we need less medicine,¹ how much less? Given the accumulating evidence that revascularisation may not add anything to patients' changing their lifestyle, how much angioplasty or coronary artery bypass grafting should be performed? The peer reviewed evidence overwhelmingly suggests that in most stable cases the answer is none.

Why has primary health care failed? Why has Health for All by 2000 been lost to oblivion?
Why is prevention a far cry? Why has caring for





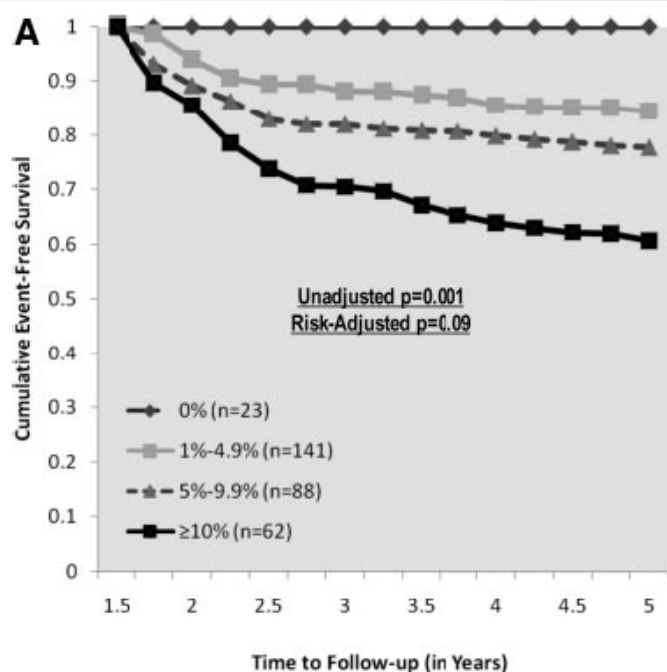
Circulation

JOURNAL OF THE AMERICAN HEART ASSOCIATION



Optimal Medical Therapy With or Without Percutaneous Coronary Intervention to Reduce Ischemic Burden: Results From the Clinical Outcomes Utilizing Revascularization and Aggressive Drug Evaluation (COURAGE) Trial Nuclear Substudy

Circulation. 2008;117:1283-1291; originally published online February 11, 2008;
doi: 10.1161/CIRCULATIONAHA.107.743963



Conclusions

From this substudy of selected COURAGE patients who underwent serial MPS imaging, adding PCI to OMT resulted in greater reduction in inducible ischemia compared with OMT alone, and the benefit was greatest among patients with more severe baseline ischemia. Our exploratory analysis of

Patients with greater than 10% residual ischaemia on stress myocardial perfusion scintigraphy had a higher rate of death or myocardial infarction than did those without ischaemia (39% vs 0%, $p<0.0001$), suggesting a potentially important role of cardiac imaging in the risk stratification of pts with a higher ischaemic burden and who are more likely to benefit from revascularisation than are those with no or only mild ischaemia.

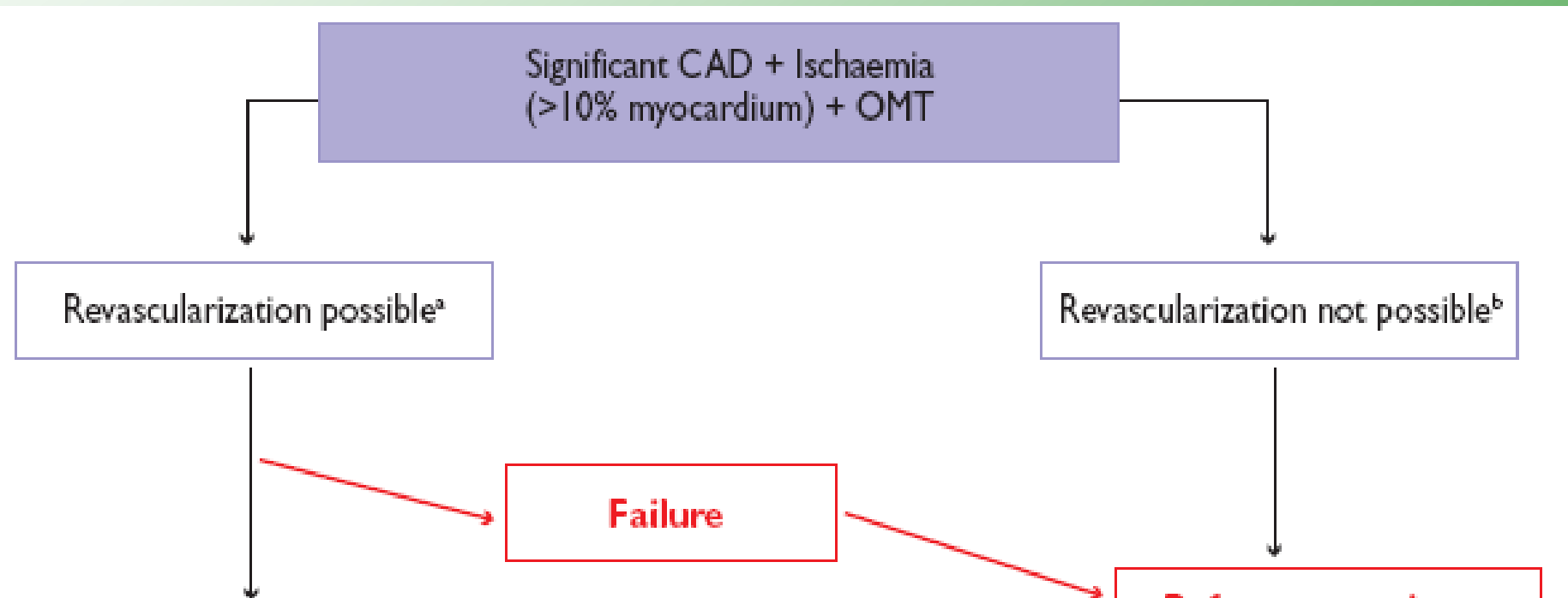


European Heart Journal
doi:10.1093/eurheartj/ehz296

ESC GUIDELINES

2013 ESC guidelines on the management of stable coronary artery disease

The Task Force on the management of stable coronary artery disease of the European Society of Cardiology





Original Article

Appropriateness of Diagnostic Catheterization for Suspected Coronary Artery Disease in New York State

Edward L. Hannan, PhD; Zaza Samadashvili, MD; Kimberly Cozzens, MA; Gary Walford, MD; David R. Holmes Jr, MD; Alice K. Jacobs, MD; Nicholas J. Stamato, MD; Ferdinand J. Venditti, MD; Samin Sharma, MD; Spencer B. King III, MD

coronary intervention inappropriateness). Of the 8986 patients who could be rated for appropriateness, 35.3% were rated as appropriate, 39.8% as uncertain, and 24.9% as inappropriate. Of the 2240 patients rated as inappropriate, 56.7% were asymptomatic/had no previous stress test/had low or intermediate global coronary artery disease risk, 36.0% had a previous stress test with low-risk findings and no symptoms, and 7.3% were symptomatic/had no previous stress test/had low pretest probability. The median hospital-level inappropriateness rate was 28.5%, with a maximum of 48.8%

Conclusions—One quarter of patients undergoing DC for suspected coronary artery disease were rated as inappropriate for the procedure, approximately two thirds of these inappropriate patients had no previous stress test, and ≈90% of inappropriate patients with no previous stress test were asymptomatic with low or intermediate global risk scores. (*Circ Cardiovasc Interv.* 2014;7:00-00.)

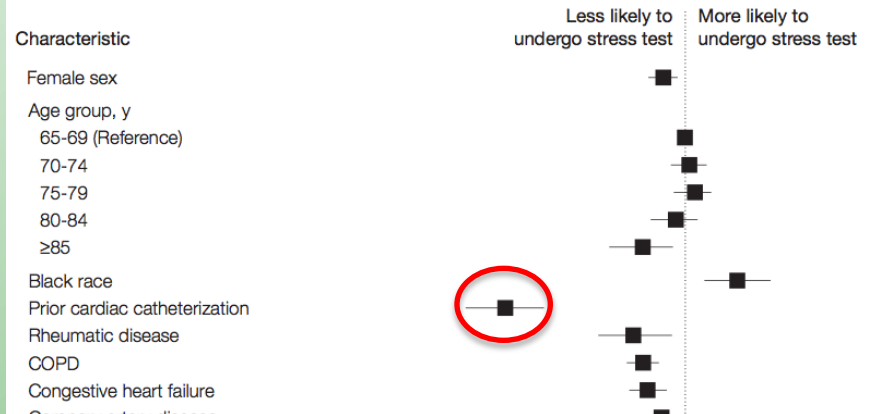


Frequency of Stress Testing to Document Ischemia Prior to Elective Percutaneous Coronary Intervention

Grace A. Lin, MD, MAS
R. Adams Dudley, MD, MBA
F. L. Lucas, PhD
David J. Malenka, MD
Eric Vittinghoff, PhD
Rita F. Redberg, MD, MSc

Conclusion The majority of Medicare patients with stable cor do not have documentation of ischemia by noninvasive testing
JAMA. 2008;300(15):1765-1773

Figure 3. Factors Predicting Receipt of Stress Test Prior to Elective Percutaneous Coronary Intervention (PCI)



Patients with greater than 10% residual ischaemia on stress myocardial perfusion scintigraphy had a higher rate of death or myocardial infarction than did those without ischaemia (39% vs 0%, $p < 0.0001$), suggesting a potentially important role of cardiac imaging in the risk stratification of pts with a higher ischaemic burden and who are more likely to benefit from revascularisation than are those with no or only mild ischaemia.

Lancet 2010 375:763-772



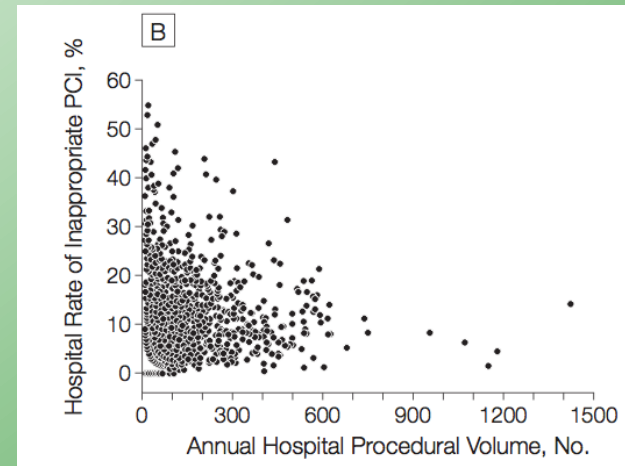
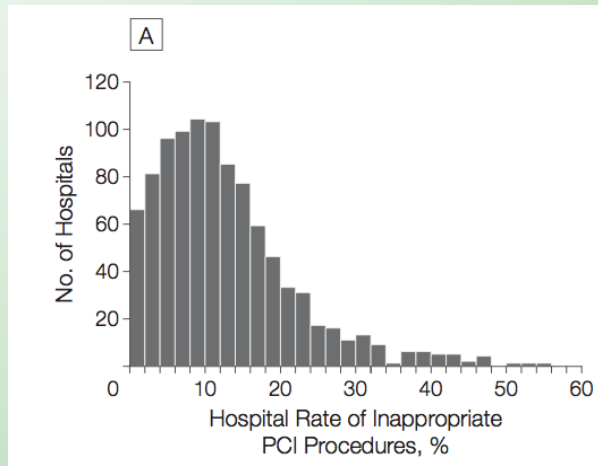
Appropriateness of Percutaneous Coronary Intervention

Paul S. Chan, MD, MSc

Conclusions In this large contemporary US cohort, nearly all acute PCIs were classified as appropriate. For nonacute indications, however, 12% were classified as inappropriate, with substantial variation across hospitals.

JAMA. 2011;306(1):53-61

www.jama.com



For nonacute indications, 72 911 PCIs (50.4%) were classified as appropriate, 54 988 (38.0%) as uncertain, and 16 838 (11.6%) as inappropriate. The majority of inappropriate PCIs for nonacute indications were performed in patients with no angina (53.8%), low-risk ischemia on noninvasive stress testing (71.6%), or suboptimal (≤ 1 medication) antianginal therapy (95.8%).



Ma cosa vuol dire OMT ?.....

The **NEW ENGLAND**
JOURNAL *of* **MEDICINE**

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APRIL 12, 2007

VOL. 356 NO. 15

**Optimal Medical Therapy with or without PCI
for Stable Coronary Disease**

William E. Boden, M.D., Robert A. O'Rourke, M.D., Koon K. Teo, M.B., B.Ch., Ph.D., Pamela M. Hartigan, Ph.D., David J. Maron, M.D., William J. Kostuk, M.D., Merrill Knudtson, M.D., Marcin Dada, M.D., Paul Casperson, Ph.D., Crystal L. Harris, Pharm.D., Bernard R. Chaitman, M.D., Leslee Shaw, Ph.D., Gilbert Gosselin, M.D., Shah Nawaz, M.D., Lawrence M. Title, M.D., Gerald Gau, M.D., Alvin S. Blaustein, M.D., David C. Booth, M.D., Eric R. Bates, M.D., John A. Spertus, M.D., M.P.H., Daniel S. Berman, M.D., G.B. John Mancini, M.D., and William S. Weintraub, M.D., for the COURAGE Trial Research Group*

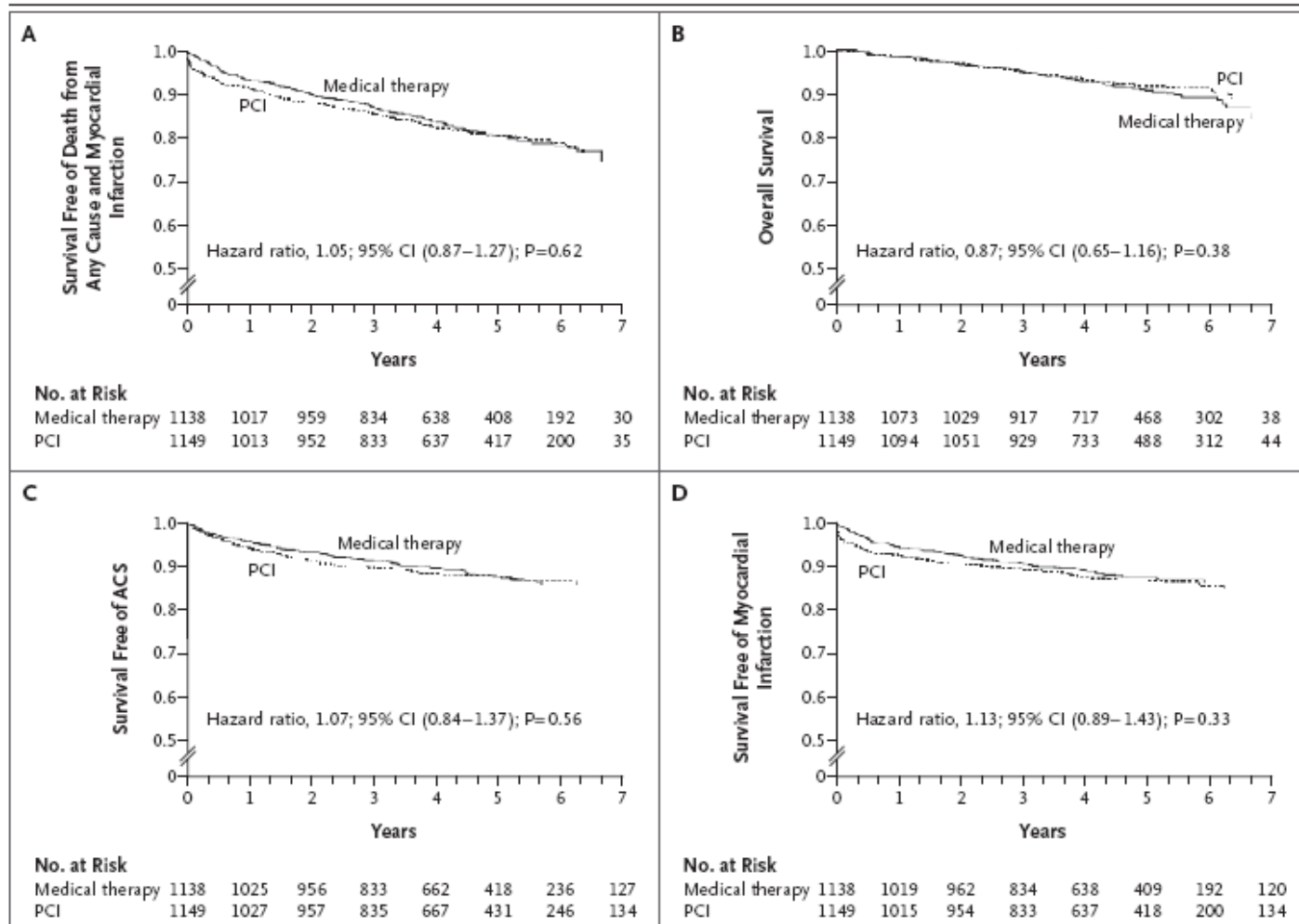


Figure 2. Kaplan–Meier Survival Curves.

In Panel A, the estimated 4.6-year rate of the composite primary outcome of death from any cause and nonfatal myocardial infarction was 19.0% in the PCI group and 18.5% in the medical-therapy group. In Panel B, the estimated 4.6-year rate of death from any cause was 7.6% in the PCI group and 8.3% in the medical-therapy group. In Panel C, the estimated 4.6-year rate of hospitalization for acute coronary syndrome (ACS) was 12.4% in the PCI group and 11.8% in the medical-therapy group. In Panel D, the estimated 4.6-year rate of acute myocardial infarction was 13.2% in the PCI group and 12.3% in the medical-therapy group.



(CABG) as a stratifying variable. All patients received antiplatelet therapy with aspirin at a dose of 81 to 325 mg per day or 75 mg of clopidogrel per day, if aspirin intolerance was present. Patients undergoing PCI received aspirin and clopidogrel, in accordance with accepted treatment guidelines and established practice standards. Medical anti-ischemic therapy in both groups included long-acting metoprolol, amlodipine, and isosorbide mononitrate, alone or in combination, along with either lisinopril or losartan as standard secondary prevention. All patients received aggressive therapy to lower low-density lipoprotein (LDL) cholesterol levels (simvastatin alone or in combination with ezetimibe) with a target level of 60 to 85 mg per deciliter (1.55 to 2.20 mmol per liter). After the LDL cholesterol target was achieved, an attempt was made to raise the level of high-density lipoprotein (HDL) cholesterol to a level above 40 mg per deciliter (1.03 mmol per liter) and lower triglyceride to a level below 150 mg per deciliter (1.69 mmol per liter) with exercise, extended-release niacin, or fibrates, alone or in combination.

Patients had a high rate of receiving multiple, evidence-based therapies after randomization and during follow-up, with similar rates in both study groups (Table 2). At the 5-year follow-up visit, 70% of subjects had an LDL cholesterol level of less than 85 mg per deciliter (2.20 mmol per liter) (median, 71 ± 1.3 mg per deciliter [1.84 ± 0.03 mmol per liter]); 65% and 94% had systolic and diastolic blood pressure targets of less than 130 mm Hg and 85 mm Hg, respectively; and 45% of patients with diabetes had a glycated hemoglobin level of no more than 7.0% (Table 2). Patients had high rates of adherence to the regimen of diet, regular exercise, and smoking cessation as recommended by clinical practice guidelines,^{1,2} although the mean body-mass index did not decrease.

“OMT”



Comparative-Effectiveness of Revascularization Versus Routine Medical Therapy for Stable Ischemic Heart Disease: A Population-Based Study.

*Wijeyesundera HC; Bennell MC; Qiu F; Ko DT; Tu JV; Wijeyesundera DN; Austin PC,
Journal Of General Internal Medicine [J Gen Intern Med]*



Background: Randomized studies have shown optimal medical therapy to be as efficacious as revascularization in stable ischemic heart disease (IHD). It is not known if these efficacy results are reflected by real-world effectiveness. **Objective:** To evaluate the comparative effectiveness of routine medical therapy versus revascularization with percutaneous coronary intervention (PCI) or coronary artery bypass grafting (CABG) in stable IHD.

We identified 39,131 stable IHD patients, of whom 15,139 were treated medically, and 23,992 were revascularized (PCI = 15,604; CABG = 8,388). Mean follow-up was 2.5 years. Revascularization was associated with fewer deaths, MIs (HR 0.78; 95 and repeat PCI/CABG (HR 0.59; 95 % CI 0.50-0.70; than medical therapy. In the propensity-matched analysis of 12,362 well-matched pairs of revascularized and medical therapy patients, fewer deaths (8.6 % vs 12.7 %), Mis (11.7 % vs 14.4%) and repeat PCI/CABG (17.4 % vs 24.1 %) occurred in revascularized patients, over the 4.1 years of follow-up. The revascularization patients had higher uptake of clopidogrel, β -blockers and statins in the 1-year post-angiogram.

Conclusions: Stable IHD patients treated with revascularization had improved risk-adjusted outcomes in clinical practice, potentially due to under-treatment of medical therapy patients.



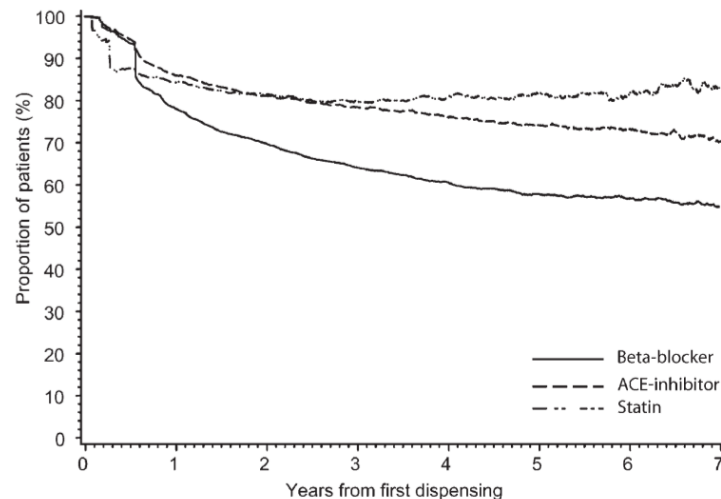
OMT vuole dire stretta aderenza alla terapia.....



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Long-term compliance with beta-blockers, angiotensin-converting enzyme inhibitors, and statins after acute myocardial infarction

Gunnar H. Gislason^{1,2*}, Jeppe N. Rasmussen², Steen Z. Abildstrøm^{2,3}, Niels Gadsbøll⁴,
Pernille Buch^{1,2}, Jens Friberg¹, Søren Rasmussen², Lars Køber⁵, Steen Stender⁶, Mette Madsen²,
and Christian Torp-Pedersen¹



Number of patients under observation (alive)

Beta-blockers	32 259	25 253	19 275	14 478	10 684	7 275	4 449	2 038
ACE-inhibitors	16 068	11 778	8 695	6 469	4 752	3 238	1 973	943
Statins	16 433	13 493	9 566	6 651	4 260	2 500	1 360	503

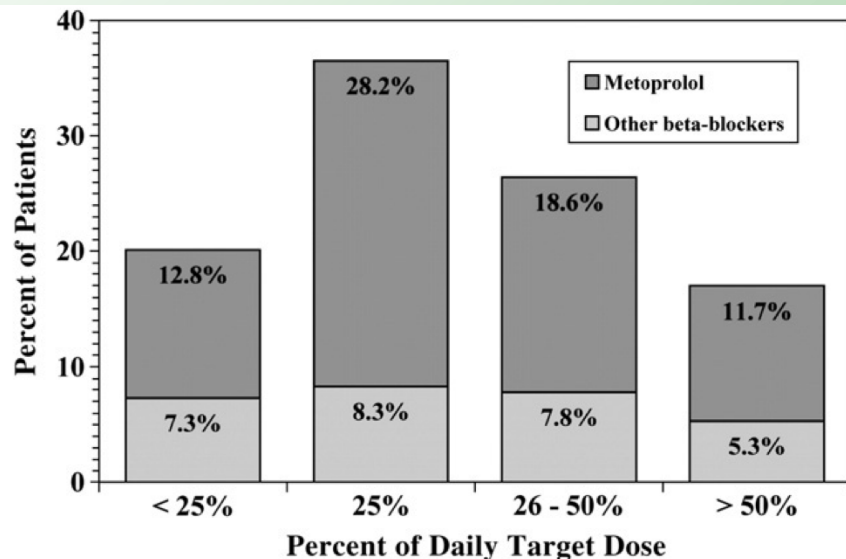
Figure 2 Persistence with therapy in patients who claimed at least one prescription early after AMI. Each point represents number of patients with available medication divided by the number of patients alive at that time.



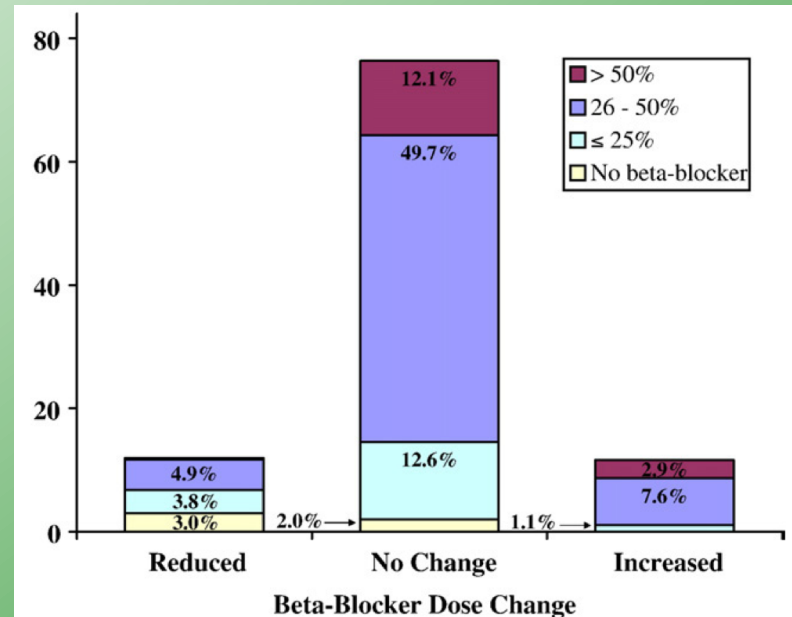
β-Blocker use following myocardial infarction: Low prevalence of evidence-based dosing

Jeffrey J. Goldberger, MD,^a Robert O. Bonow, MD,^a Michael Cuffe, MD,^b Alan Dyer, PhD,^a Yves Rosenberg, MD,^c Robert O'Rourke, MD,^d Prediman K. Shah, MD,^e and Sidney C. Smith, Jr, MD^f for the PACE-MI Investigators
Chicago, IL; Durham and Chapel Hill, NC; Bethesda, MD; San Antonio, TX; and Los Angeles, CA

Conclusions Underdosing of β-blockers is highly prevalent among patients post-MI. This represents an important opportunity in quality improvement for the care of patients who have suffered an MI. (Am Heart J 2010;160:435-442.e1.)



The graph shows the percentage of patients taking various doses of β-blockers at discharge. Doses are shown as the proportion or percentage of daily target dose: <25%, n = 347; 25%, n = 629; 26% to 50%, n = 454; >50%, n = 293. Each bar is subdivided to indicate metoprolol dosing and dosing of other β-blockers.



The graph shows the distribution of β-blocker dosing (shown as percentage of daily target dose; see legend) at 3 weeks stratified by whether the dose was reduced (n = 171), remained the same (n = 1095), or increased (n = 167) since hospital discharge.



Medicine®

OBSERVATIONAL STUDY

OPEN

Improving Patient's Primary Medication Adherence

The Value of Pharmaceutical Counseling

Géraldine Leguelinel-Blache, PharmD, PhD, Florent Dubois, PharmD, Sophie Bouvet, PhD, Clarisse Roux-Marson, PharmD, Fabrice Arnaud, PharmD, Christel Castelli, PhD, Valérie Ray, MD, Jean-Marie Kinowski, PharmD, PhD, and Albert Sotto, MD, PhD

CONCLUSION

This study highlights that discharge counseling sessions are essential to improve outpatient primary adherence. Ward-based pharmacist plays an indispensable role before patient discharge by transmitting medication information and assessing its understanding. He liaises between hospital and community. We identified predictive factors of primary nonadherence in order to target the most eligible patients for discharge counseling sessions. However, additional studies must be conducted to identify further criteria of primary nonadherence. Moreover, the implementation of discharge counseling could be facilitated by using Health Information Technology to adapt human resources and select patients at risk of nonadherence.

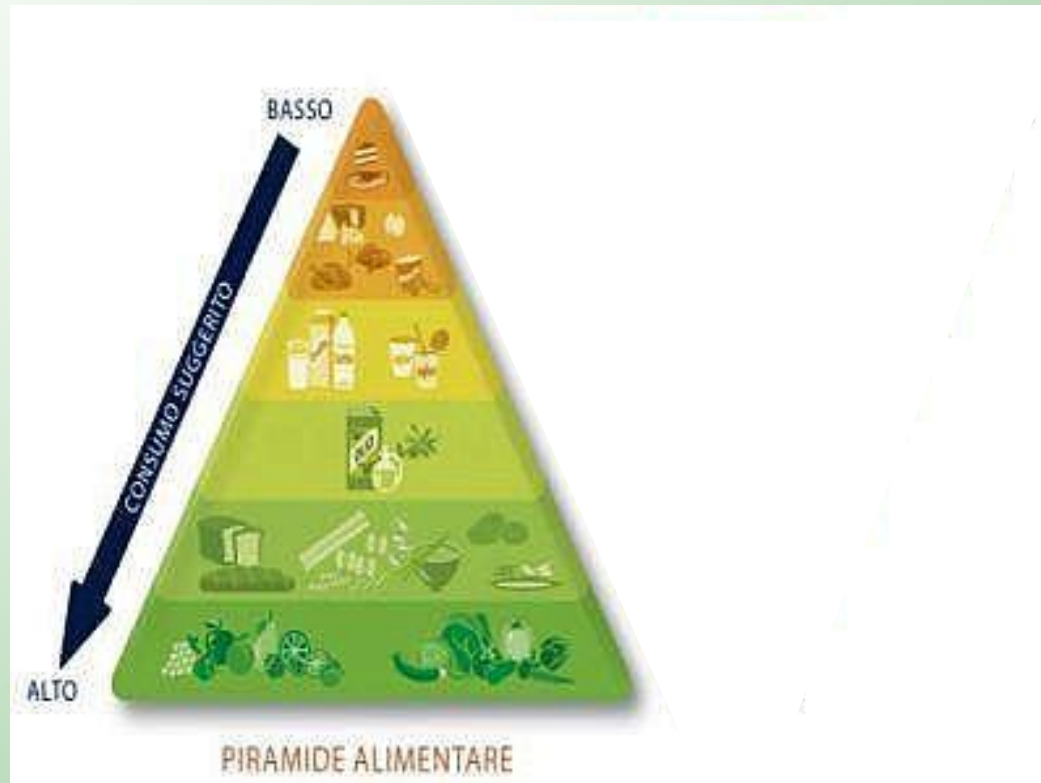
TABLE 2. Medication Adherence Assessment

Period	Primary Medication Adherence		P-Value
	Yes (%)	No (%)	
Observational period (n = 157)	51.0	49.0	
Interventional period (n = 123)	66.7	33.3	<0.01
Interventional period with DC (n = 74)	79.7	20.3	<0.0001

DC = discharge counseling.



OMT vuole dire attenzione all'alimentazione.....



Nulla darà all'uomo la possibilità di sopravvivenza sulla terra quanto l'evoluzione verso una dieta vegetariana.

- Albert Einstein



OMT vuole dire attività fisica.....

Percutaneous Coronary Angioplasty Compared With Exercise Training in Patients With Stable Coronary Artery Disease

A Randomized Trial *Circulation*

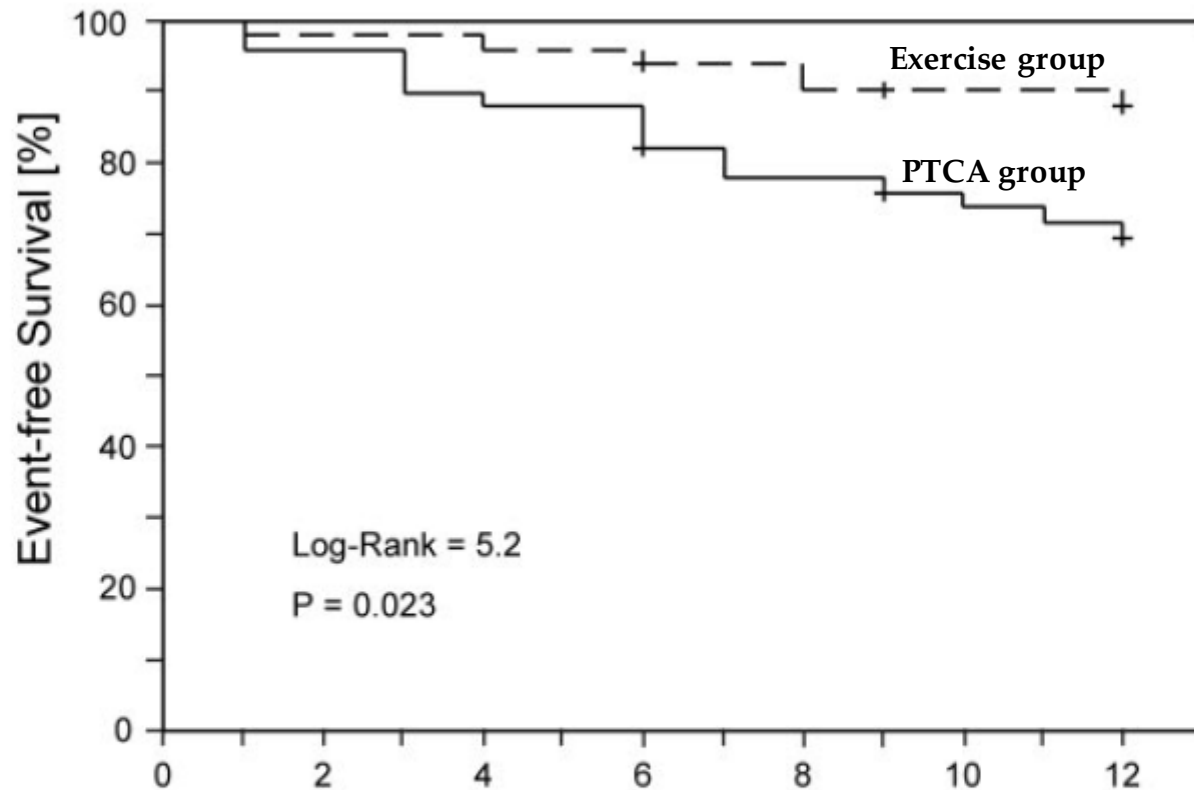


Rainer Hambrecht, MD; Claudia Walther, MD; Sven Möbius-Winkler, MD; Stephan Gielen, MD; Axel Linke, MD; Katrin Conradi, MD; Sandra Erbs, MD; Regine Kluge, MD; Kai Kendziorra, MD; Osama Sabri, MD; Peter Sick, MD; Gerhard Schuler, MD

Background—Regular exercise in patients with stable coronary artery disease has been shown to improve myocardial perfusion and to retard disease progression. We therefore conducted a randomized study to compare the effects of exercise training versus standard percutaneous coronary intervention (PCI) with stenting on clinical symptoms, angina-free exercise capacity, myocardial perfusion, cost-effectiveness, and frequency of a combined clinical end point (death of cardiac cause, stroke, CABG, angioplasty, acute myocardial infarction, and worsening angina with objective evidence resulting in hospitalization).

Methods and Results—A total of 101 male patients aged ≤ 70 years were recruited after routine coronary angiography and randomized to 12 months of exercise training (20 minutes of bicycle ergometry per day) or to PCI. Cost efficiency was calculated as the average expense (in US dollars) needed to improve the Canadian Cardiovascular Society class by 1 class. Exercise training was associated with a higher event-free survival (88% versus 70% in the PCI group, $P=0.023$) and increased maximal oxygen uptake (+16%, from 22.7 ± 0.7 to 26.2 ± 0.8 mL O_2 /kg, $P<0.001$ versus baseline, $P<0.001$ versus PCI group after 12 months). To gain 1 Canadian Cardiovascular Society class, \$6956 was spent in the PCI group versus \$3429 in the training group ($P<0.001$).

Conclusions—Compared with PCI, a 12-month program of regular physical exercise in selected patients with stable coronary artery disease resulted in superior event-free survival and exercise capacity at lower costs, notably owing to reduced rehospitalizations and repeat revascularizations. (*Circulation*. 2004;109:1371-1378.)



Patients at Risk

PTCA/Stent Group	50	41	35
Exercise Training Group	51	48	45



“prima dell’angioplastica viene la ginnastica...”
JAMA 2013; 309 (2): 144-145

EXERCISE RECOMMENDATIONS

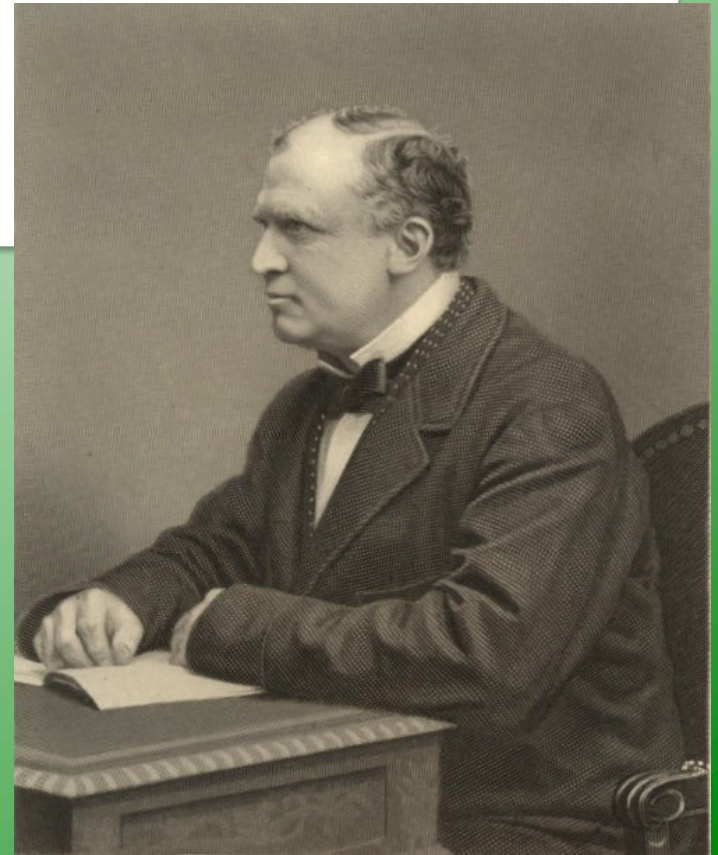
- Health.gov General Recommendation:
 - 2 hours 30 minutes weekly
(150 minutes)
- New data published in The Lancet:
 - 15 minutes daily reduces risk of death by 14%
 - Increase life expectancy by 3 years



“Those who think they have no time for bodily exercise will sooner or later have to find time for illness”

Edward Stanley, Earl of Derby

Liverpool College, December 20, 1873.



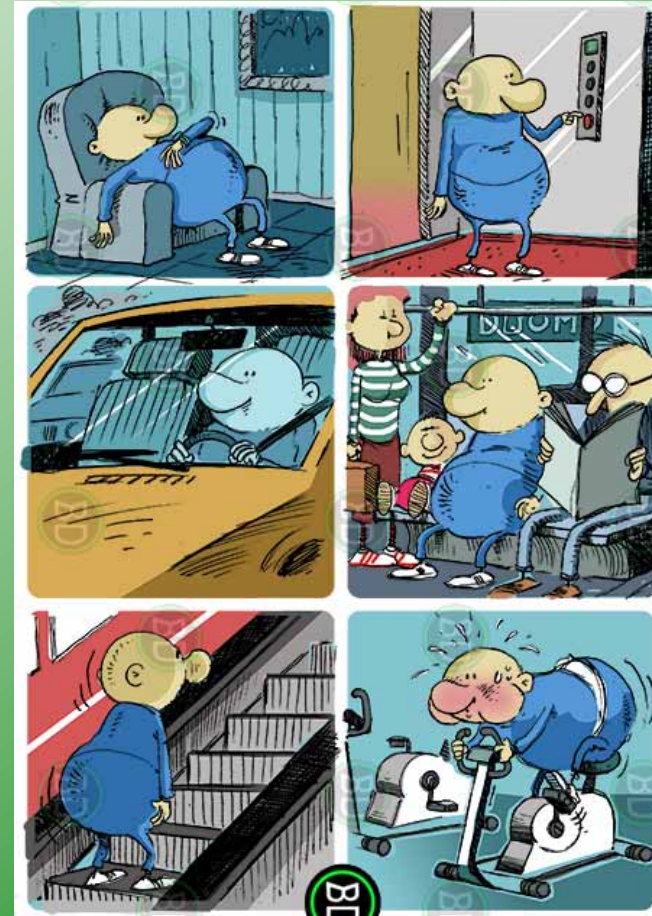


UBC News

Don't sweat it: Are exercise pills in our future?

October 5, 2015

Could an "exercise pill" really replace going to the gym?





AGGRESSIVE LIPID-LOWERING THERAPY COMPARED WITH ANGIOPLASTY IN STABLE CORONARY ARTERY DISEASE

BERTRAM PITT, M.D., DAVID WATERS, M.D., WILLIAM VIRGIL BROWN, M.D., AD J. VAN BOVEN, M.D., PH.D.,
LEONARD SCHWARTZ, M.D., LAWRENCE M. TITLE, M.D., DANIEL EISENBERG, M.D., LINDA SHURZINSKE, M.S.,
AND LISA S. MCCORMICK, PHARM.D., FOR THE ATORVASTATIN VERSUS REVASCUARIZATION TREATMENT INVESTIGATORS*

Conclusions In low-risk patients with stable coronary artery disease, aggressive lipid-lowering therapy is at least as effective as angioplasty and usual care in reducing the incidence of ischemic events. (N Engl J Med 1999;341:70-6.)

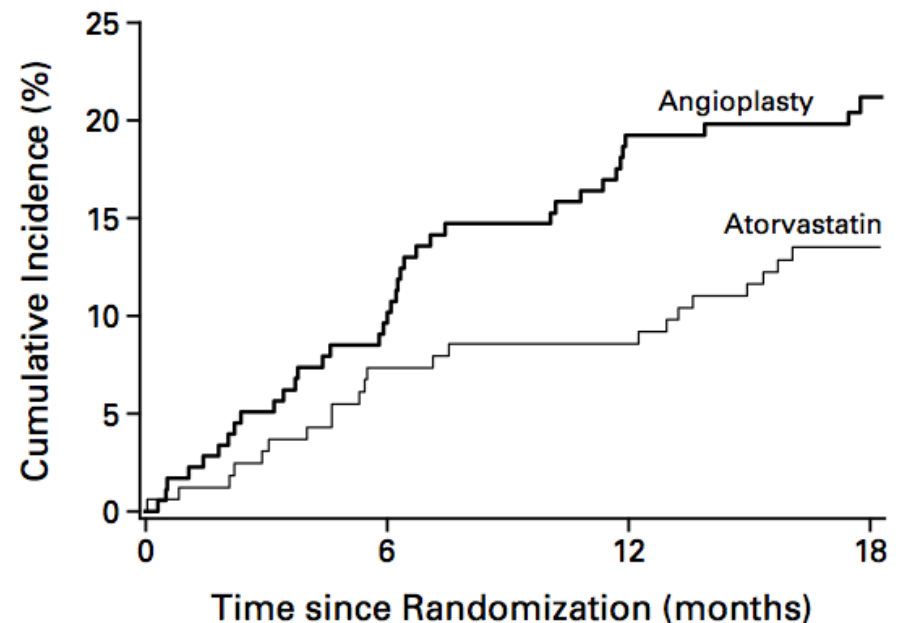


Figure 2. Cumulative Incidence of First Ischemic Events. The time to an ischemic event was significantly longer in the atorvastatin group ($P=0.03$), and the risk reduction was 36 percent (95 percent confidence interval, 5 to 67 percent).



**AGGRESSIVE LIPID-LOWERING THERAPY COMPARED WITH ANGIOPLASTY
IN STABLE CORONARY ARTERY DISEASE**

BERTRAM PITT, M.D., DAVID WATERS, M.D., WILLIAM VIRGIL BROWN, M.D., AD J. VAN BOVEN, M.D., PH.D.,
LEONARD SCHWARTZ, M.D., LAWRENCE M. TITLE, M.D., DANIEL EISENBERG, M.D., LINDA SHURZINSKE, M.S.,
AND LISA S. MCCORMICK, PHARM.D., FOR THE ATORVASTATIN VERSUS REVASCULARIZATION TREATMENT INVESTIGATORS*

European Heart Journal (2000) **21**, 1029–1031

doi:10.1053/euhj.1999.2015, available online at <http://www.idealibrary.com> on **IDEAL**[®]

Hotline Editorial

Is a mechanical or a metabolic approach superior in the treatment of coronary disease? Results of the Atorvastatin Versus Revascularization (AVERT) Trial

evidence supporting aggressive cholesterol lowering in such patients is incontrovertible. As cardiologists, our attitude should be a lot more ‘metabolic’ and a lot less ‘mechanical’.

D. WATERS

*Cardiology Division,
San Francisco General Hospital,
San Francisco, California, U.S.A.*

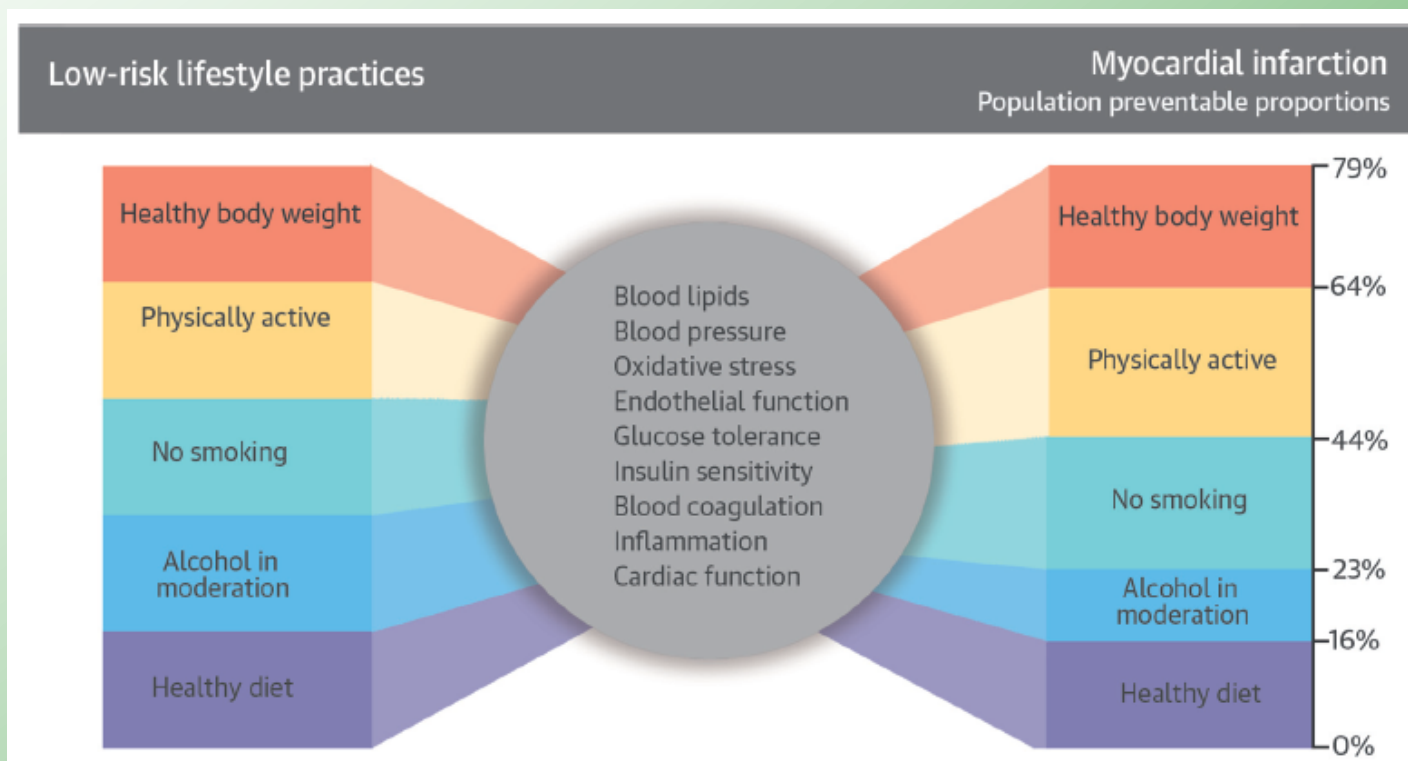


OMT vuole dire prevenzione.....



Low-Risk Diet and Lifestyle Habits in the Primary Prevention of Myocardial Infarction in Men

A Population-Based Prospective Cohort Study



CONCLUSIONS Almost 4 of 5 MIs in men may be preventable with a combined low-risk behavior. (J Am Coll Cardiol 2014;64:1299-306) © 2014 by the American College of Cardiology Foundation.



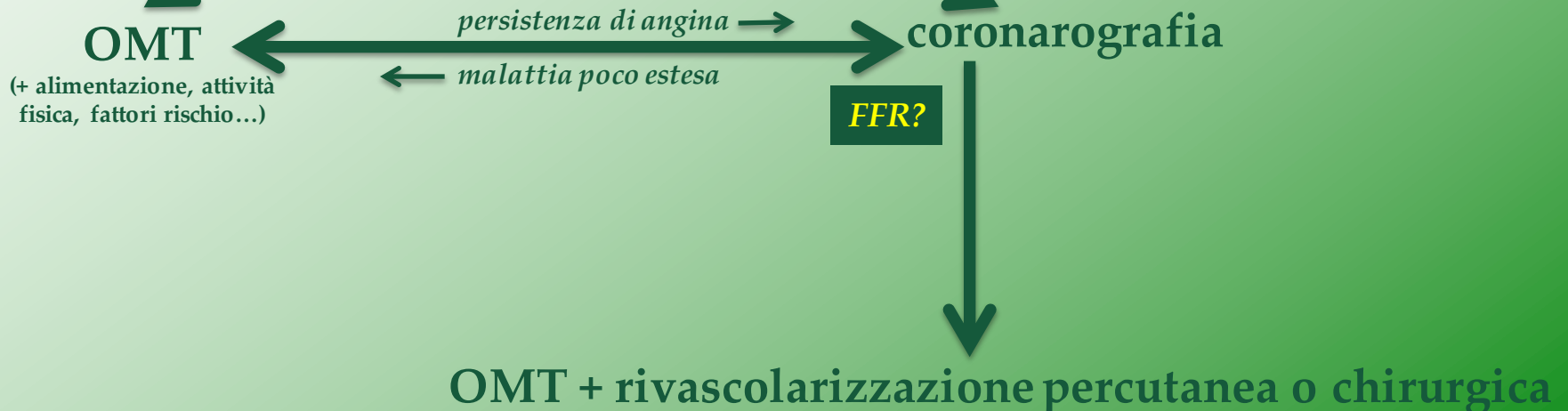
Conclusioni: algoritmo di trattamento della cardiopatia ischemica stabile Proposta clinicocentrica / metabolicocentrica

quadro dubbio di cardiopatia ischemica

ECG da sforzo

indicativo di ridotta riserva coronarica per alterazioni ECG

*presenza di angina?
carico di lavoro?
doppio prodotto alla soglia ischemica?
terapia in atto?
tipo di paziente?
fattori di rischio?*





Conclusioni: informazione al paziente

- **Benefici e rischi della procedura di rivascolarizzazione**
 - **Eventuali alternative**
 - **Aderenza alla terapia**

Box 1. *Le 5 domande che si dovrebbero rivolgere al medico prima di sottoporsi a un test, un trattamento o una procedura.*

- Ho proprio bisogno di questa procedura? I test aiutano te e il tuo medico a decidere se trattare una malattia e le procedure aiutano a trattarlo.
- Quali sono i rischi? Sono noti effetti indesiderati? Quali sono le probabilità di ottenere un risultato non accurato? Questo comporterà ulteriori test o procedure?
- Ci sono soluzioni più semplici o più sicure? Certe volte può essere sufficiente un cambiamento dello stile di vita come mangiare cibi sani e svolgere più attività fisica.
- Cosa succede se non faccio nulla? Chiedi se la tua condizione può peggiorare o migliorare a non eseguire quella procedura in tempi stretti.
- Quanto costa? Chiedi se ci sono procedure meno costose o farmaci equivalenti.



Conclusioni: appropriatezza di trattamento, corretto utilizzo delle risorse

Spesa sanitaria

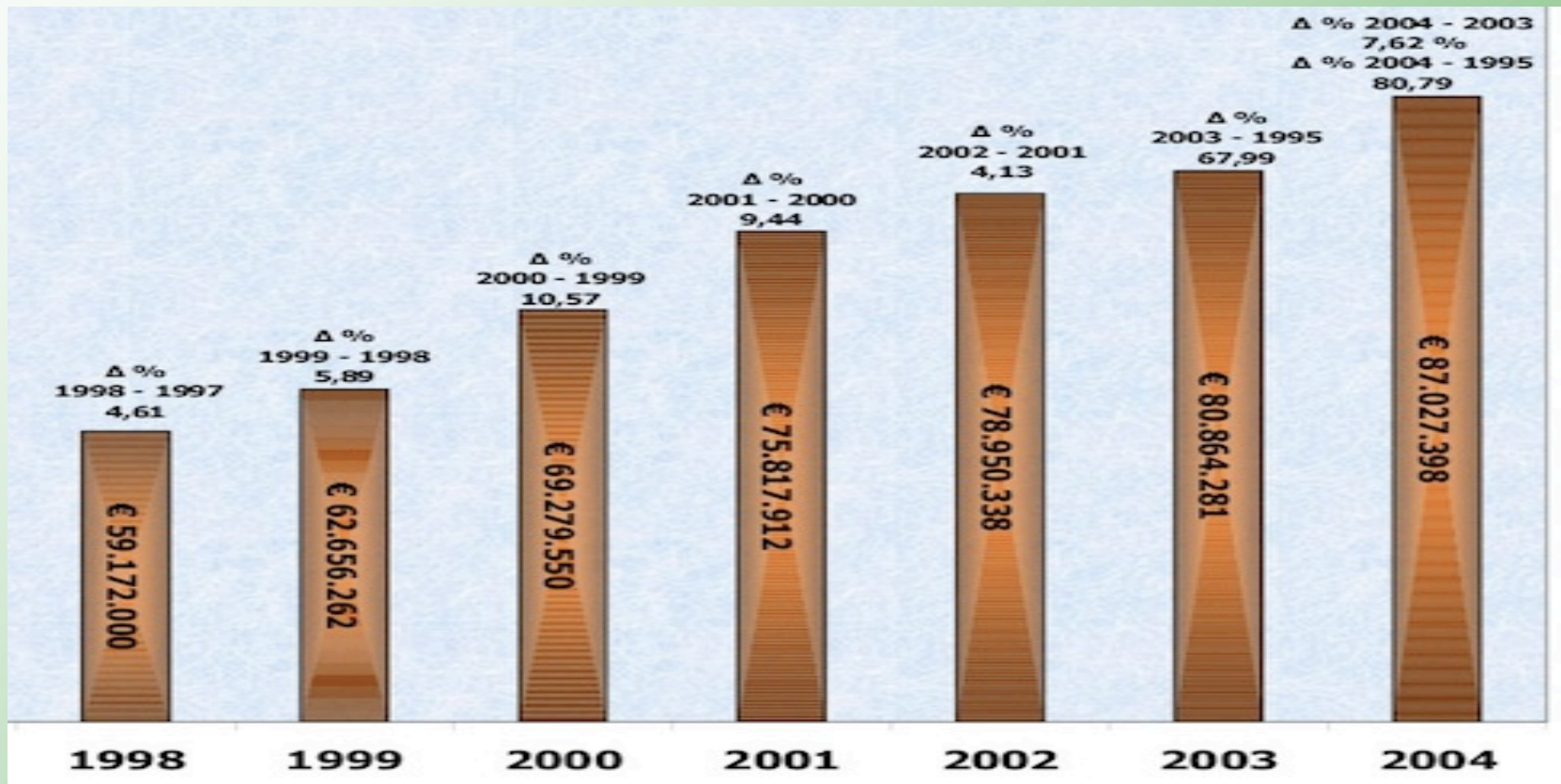
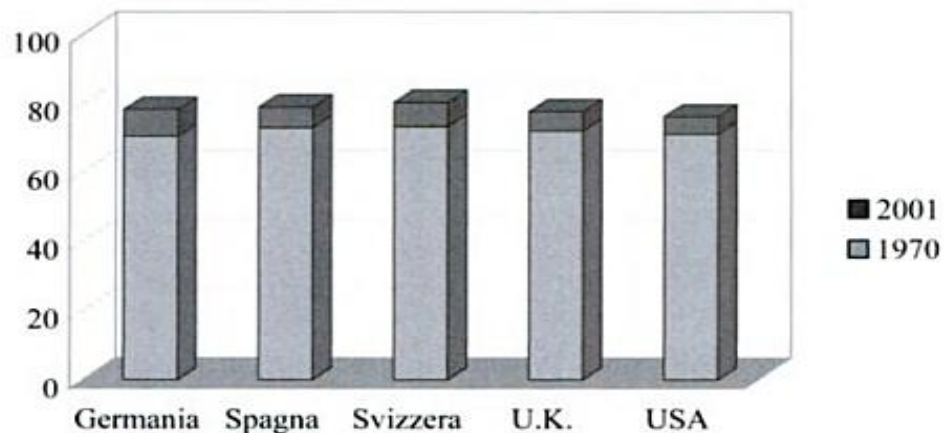


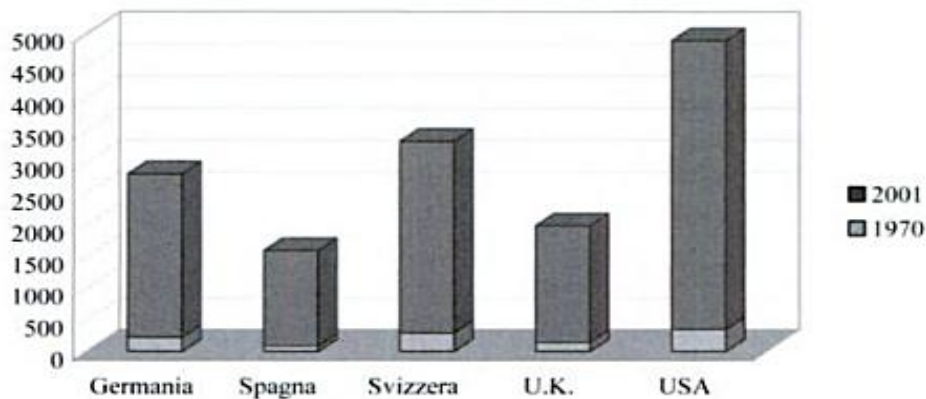


Fig. 2 - Variazione dell'aspettativa di vita alla nascita, in anni, tra il 1970 e il 2001



Fonte: Elaborazione su dati WHO World Report 2002

Fig. 3 - Variazione della spesa pro capite, in dollari a parità di potere di acquisto, tra il 1970 e il 2001



Fonte: Elaborazione su dati OECD Health Data 2003

Marcello Crivellini
**SANITÀ E SALUTE:
 UN CONFLITTO
 DI INTERESSE**
*I sistemi sanitari
 dei maggiori paesi europei e degli Stati Uniti*



FrancoAngeli





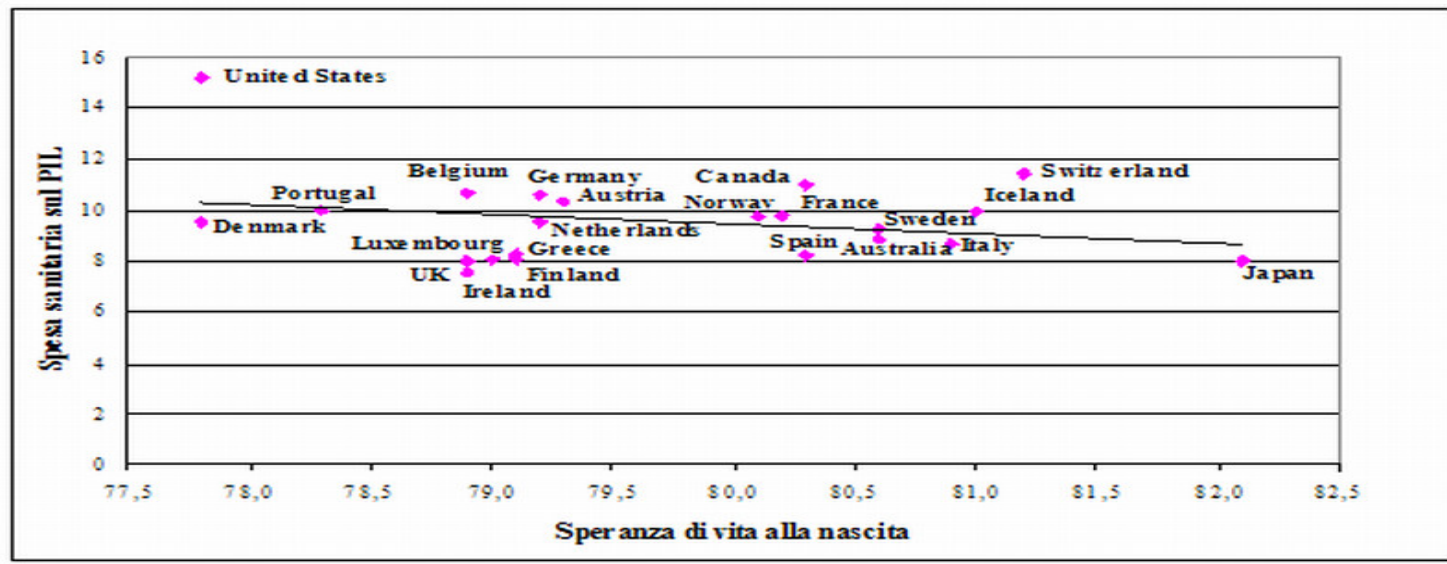
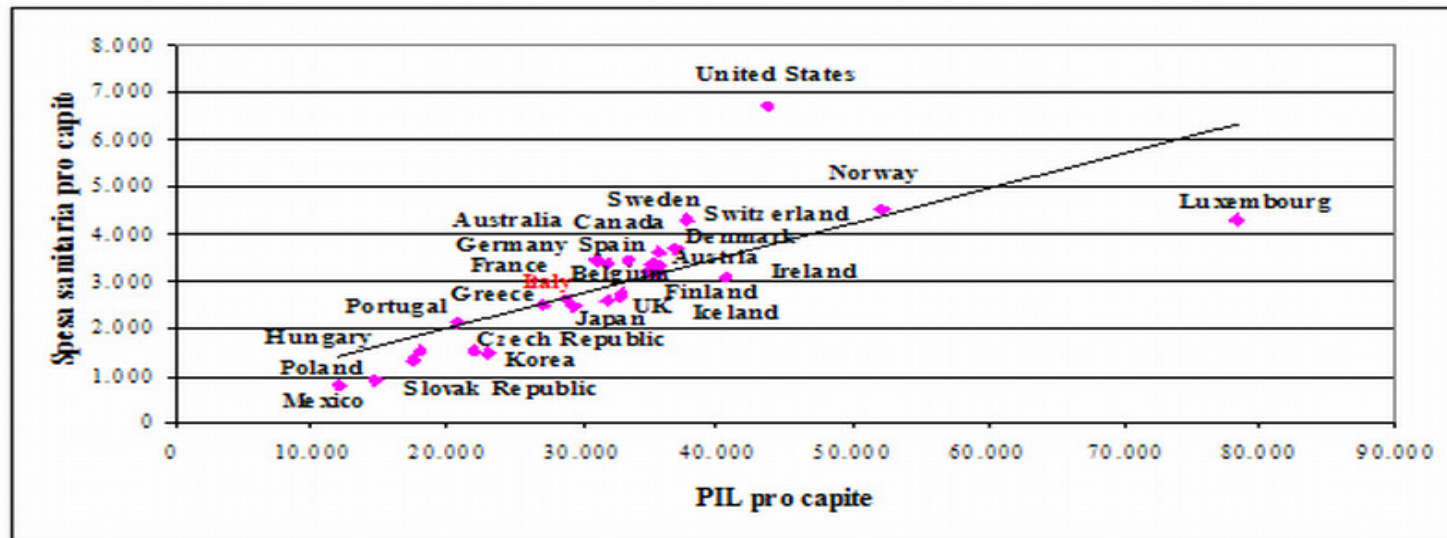
Conclusioni: appropriatezza di trattamento, corretto utilizzo delle risorse

Predicting prognosis in stable angina—results from the Euro heart survey of stable angina: prospective observational study

Caroline A Daly, Bianca De Stavola, Jose L Lopez Sendon, Luigi Tavazzi, Eric Boersma, Felicity Clemens, Nicholas Danchin, Francois Delahaye, Anselm Gitt, Desmond Julian, David Mulcahy, Witold Ruzyllo, Kristian Thygesen, Freek Verheugt, Kim M Fox, on behalf of the Euro Heart Survey Investigators

Table 3 Major clinical events occurring during follow-up in the overall population and in patients with confirmed coronary disease

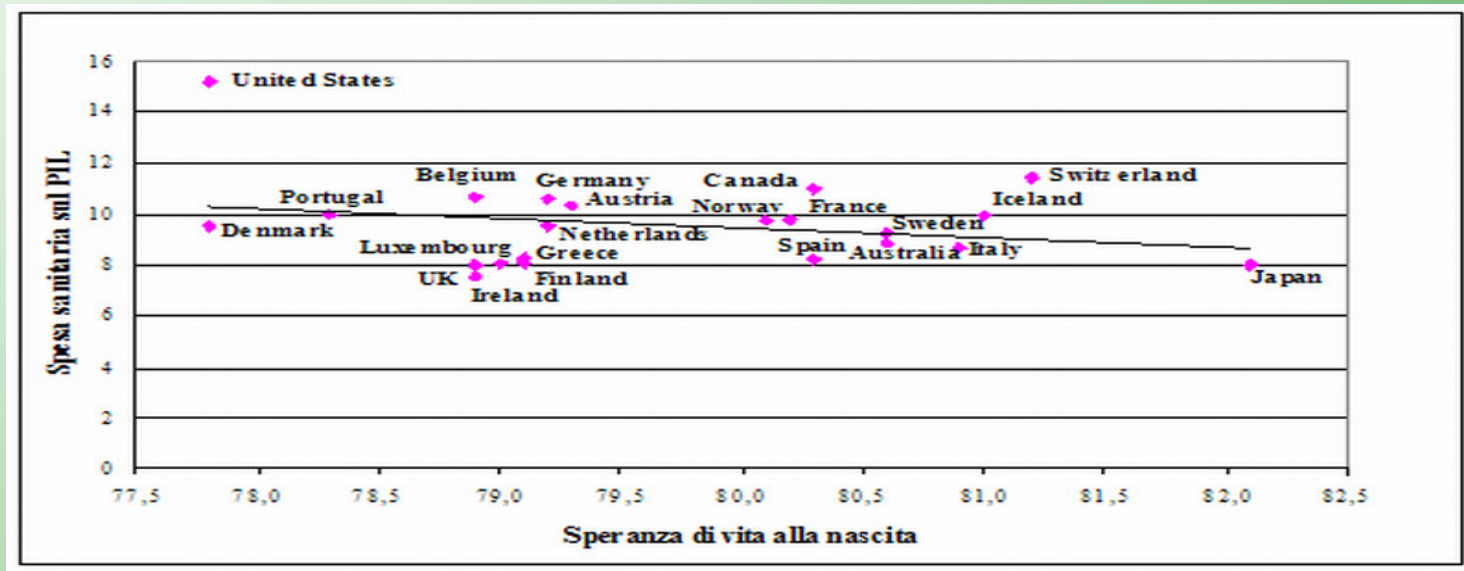
End point	Stable angina (n=3031)		Stable angina with confirmed CAD (n=994)	
	No of events	Event rate (95% CI) per 100 patient years	No of events	Event rate (95% CI) per 100 patient years
Death*	50	1.5 (1.1 to 1.9)	19	1.8 (1.1 to 2.8)
Non-cardiovascular death	14 (28%)		2 (11%)	
Non-fatal myocardial infarction	48	1.4 (1.1 to 1.9)	34	3.2 (2.3 to 4.4)
Death and non-fatal myocardial infarction	93	2.3 (1.9 to 2.8)	50	3.9 (2.9 to 5.1)
Cerebrovascular event	34	1.1 (0.8 to 1.5)	15	1.6 (1.0 to 2.6)
Heart failure	49	1.5 (1.1 to 2.0)	20	2.1 (1.3 to 3.2)
Unstable angina	164	5.2 (4.4 to 6.0)	114	12.1 (10.1 to 14.6)
All cardiovascular events†	328	10.3 (9.3 to 11.5)	207	21.9 (19.1 to 25.2)





“...la sanità ha effetti relativi sulla salute, essendo maggiori gli effetti dell'igiene, delle condizioni di vita, dell'alimentazione e in genere dello stile di vita; anche se non è agevole separare i diversi effetti, alcuni ricercatori hanno stimato che il raggiungimento della longevità dipende per il 20-30% dal patrimonio genetico, per il 20% dall'eco-sistema, per il 40-50% da fattori socio-economici e solo per il 10-15% da fattori strettamente sanitari...”

(M. Crivellini, Sanità e Salute: un Conflitto di Interesse”)





ONLINE FIRST

Eliminating Waste in US Health Care

Donald M. Berwick, MD, MPP

Andrew D. Hackbarth, MPhil

The need is urgent to bring US health care costs into a sustainable range for both public and private payers. Commonly, programs to contain costs use cuts, such as reductions in payment levels, benefit structures, and eligibility. A less harmful strategy would reduce waste, not value-added care. The opportunity is immense. In just 6 categories of waste—overtreatment, failures of care coordination, failures in execution of care processes, administrative complexity, pricing failures, and fraud and abuse—the sum of the lowest available estimates exceeds 20% of total health care expenditures. The actual total may be far greater. The savings potentially achievable from systematic, comprehensive, and cooperative pursuit of even a fractional reduction in waste are far higher than from more direct and blunter cuts in care and coverage. The potential economic dislocations, however, are severe and require mitigation through careful transition strategies.

JAMA. 2012;307(14):1513-1516
Published online March 14, 2012. doi:10.1001/jama.2012.362

www.jama.com

Here is a better idea: cut waste. That is a basic strategy for survival in most industries today, ie, to keep processes, products, and services that actually help customers and systematically remove the elements of work that do not.



ONLINE FIRST

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Table. Estimates of Annual US Health Care Waste, by Category^a

	\$ in Billions					
	Annual Cost to Medicare and Medicaid in 2011 ^b			Annual Cost to US Health Care System in 2011		
	Low	Midpoint	High	Low	Midpoint	High
Failures of care delivery	26	36	45	102	128	154
Failures of care coordination	21	30	39	25	35	45
Overtreatment	67	77	87	158	192	226
Administrative complexity	16	36	56	107	248	389
Pricing failures	36	56	77	84	131	178
Fraud and abuse	30	64	98	82	177	272
Total^c	197	300	402	558	910	1263
% of Total Spending				21	34	47



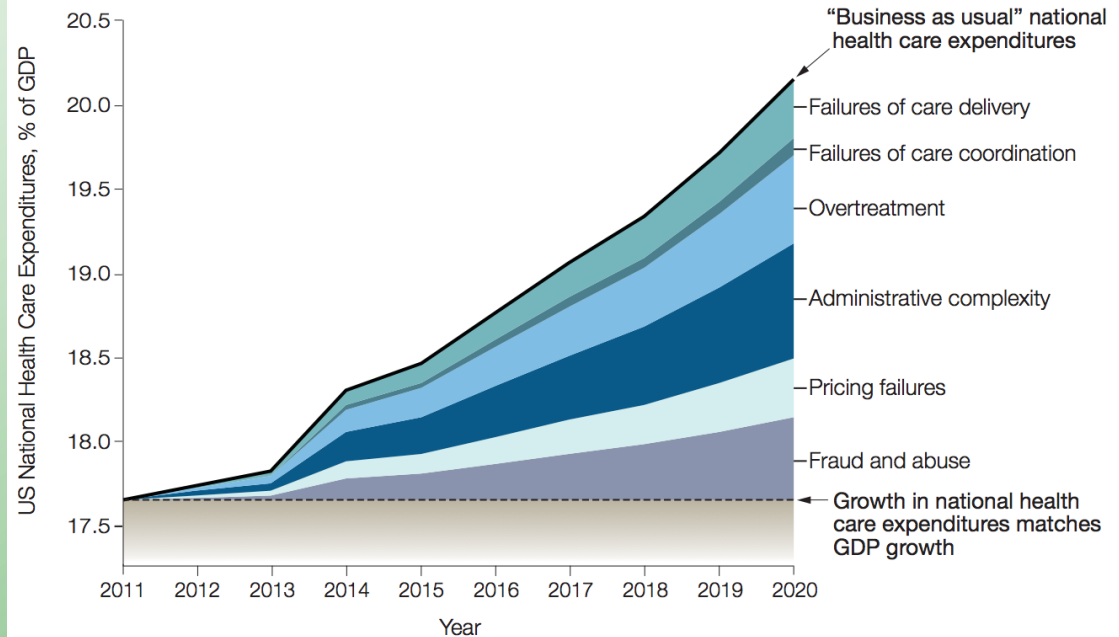
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Figure. Proposed “Wedges” Model for US Health Care, With Theoretical Spending Reduction Targets for 6 Categories of Waste



The “wedges” model for US health care follows the approach based on the model by Pacala and Socolow.⁹ The solid black “business as usual” line depicts a current projection of health care spending, which is estimated to grow faster than the gross domestic product (GDP), increasing the percentage of GDP spent on health care; the dashed line depicts a more sustainable level of health care spending growth that matches GDP growth, fixing the percentage of GDP spent on health care at 2011 levels. Between these lines lies the “stabilization triangle”—the reduction in national health care expenditures needed to close the gap. The 6 colored regions filling the triangle show one possible set of spending reduction targets; each region represents health care expenditures as a percentage of GDP that could be eliminated by reduction of spending in that waste category over time.

nel 2020:
0.5% del PIL USA



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American College of Cardiology



Five Things Physicians and Patients Should Question

1

Don't perform stress cardiac imaging or advanced non-invasive imaging in the initial evaluation of patients without cardiac symptoms unless high-risk markers are present.

Asymptomatic, low-risk patients account for up to 45 percent of unnecessary "screening." Testing should be performed only when the following findings are present: diabetes in patients older than 40-years-old; peripheral arterial disease; or greater than 2 percent yearly risk for coronary heart disease events.

2

Don't perform annual stress cardiac imaging or advanced non-invasive imaging as part of routine follow-up in asymptomatic patients.

Performing stress cardiac imaging or advanced non-invasive imaging in patients without symptoms on a serial or scheduled pattern (e.g., every one to two years or at a heart procedure anniversary) rarely results in any meaningful change in patient management. This practice may, in fact, lead to unnecessary invasive procedures and excess radiation exposure without any proven impact on patients' outcomes. An exception to this rule would be for patients more than five years after a bypass operation.

3

Don't perform stress cardiac imaging or advanced non-invasive imaging as a pre-operative assessment in patients scheduled to undergo low-risk non-cardiac surgery.

Non-invasive testing is not useful for patients undergoing low-risk non-cardiac surgery (e.g., cataract removal). These types of tests do not change the patient's clinical management or outcomes and will result in increased costs.

4

Don't perform echocardiography as routine follow-up for mild, asymptomatic native valve disease in adult patients with no change in signs or symptoms.

Patients with native valve disease usually have years without symptoms before the onset of deterioration. An echocardiogram is not recommended yearly unless there is a change in clinical status.

5

Don't perform stenting of non-culprit lesions during percutaneous coronary intervention (PCI) for uncomplicated hemodynamically stable ST-segment elevation myocardial infarction (STEMI).

Stent placement in a noninfarct artery during primary PCI for STEMI in a hemodynamically stable patient may lead to increased mortality and complications. While potentially beneficial in patients with hemodynamic compromise, intervention beyond the culprit lesion during primary PCI has not demonstrated benefit in clinical trials to date.

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of limited clinical resources





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We come together as researchers, health care professionals, activists, advocates, patients, caregivers and citizens deeply troubled about the growing corruption of medical science and health care.

We demand an end to industry-promoted *disease-mongering* that manipulates health concerns and causes harm through practices that medicalise normal life and deceive professionals and the public.

Hazardous practices and distorted science harm patients, waste public resources, create illness and health anxiety, hoodwink the public, corrupt knowledge, corrode professionalism, and expose everyone to unnecessary, costly and dangerous tests and treatments.



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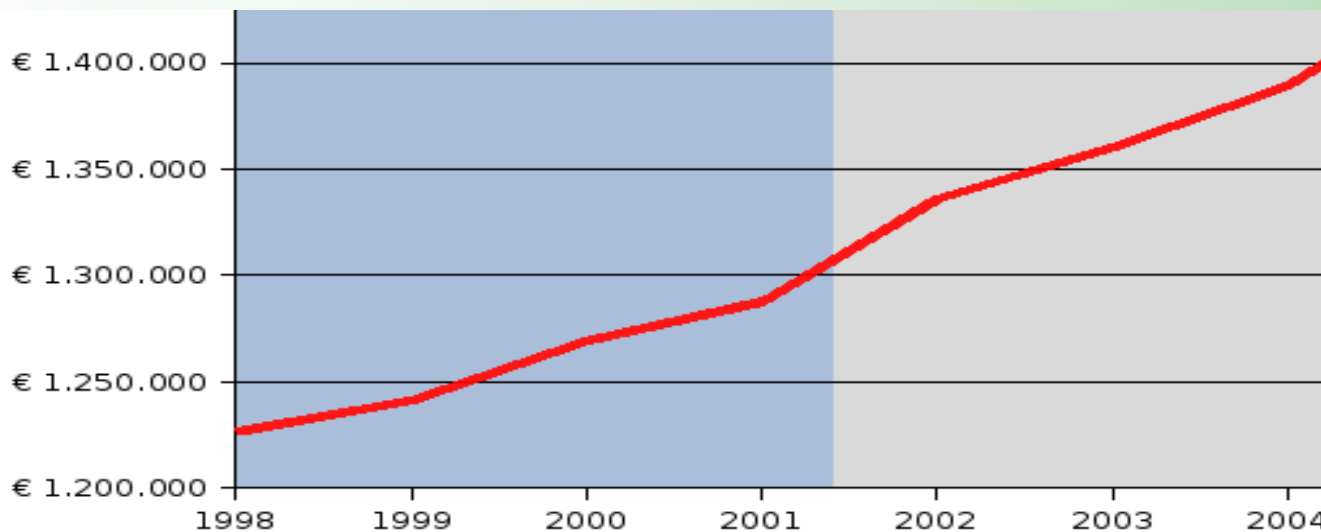
Responsabile dell'U. O. di Riabilitazione e del

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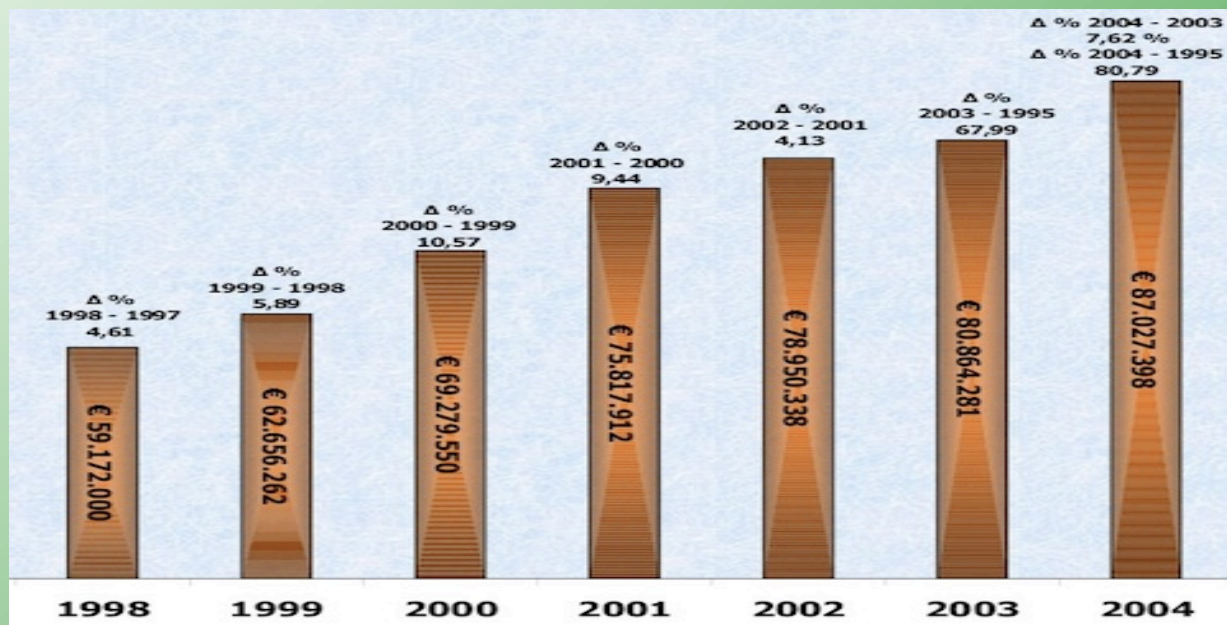
Humanitas Gavazzeni, Bergamo



Debito pubblico



Spesa sanitaria





11,7%

la disoccupazione
(record dal 1993)

38,7%

la disoccupazione
giovanile

3%

il deficit

-2,4%

il calo del Pil

-4,3%

il calo dei consumi

127%

il debito pubblico

44%

la pressione
fiscale

1,9% l'inflazione

2.800.000

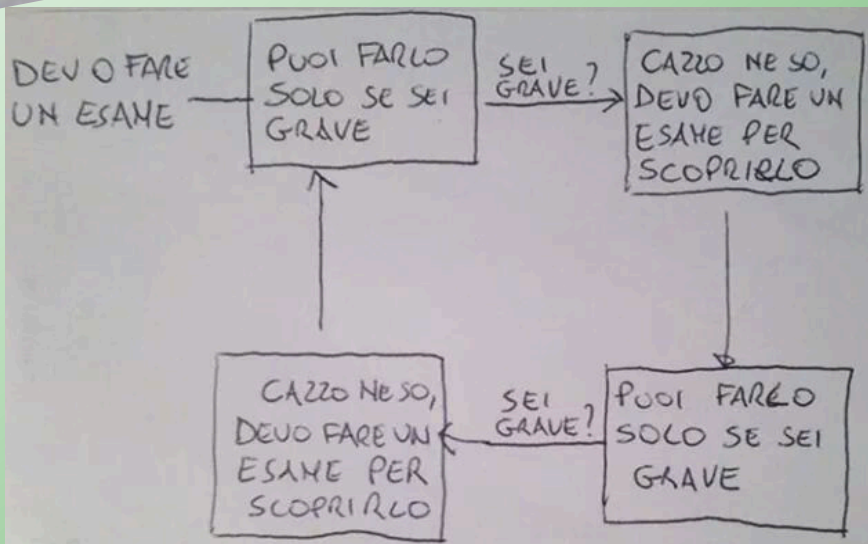
i precari



Sanità, tagli per decreto tetto a esami e visite: chi sfora dovrà pagare

Oggi in aula misure da 2,3 miliardi quest'anno e altrettanti nei prossimi due. I medici inadempienti avranno decurtazioni del loro stipendio

ALLA SALUTE L'assistenza parallela dei parlamentari costa 17 milioni l'anno
I politici che tagliano la sanità hanno tutti gli esami gratis



Sanità, drastici tagli su esami preventivi. Seppellire è meglio che curare.
(Renata Toniazzi)



Salute, medici sul piede di guerra: "Decreto taglia-esami? Sarà sciopero"

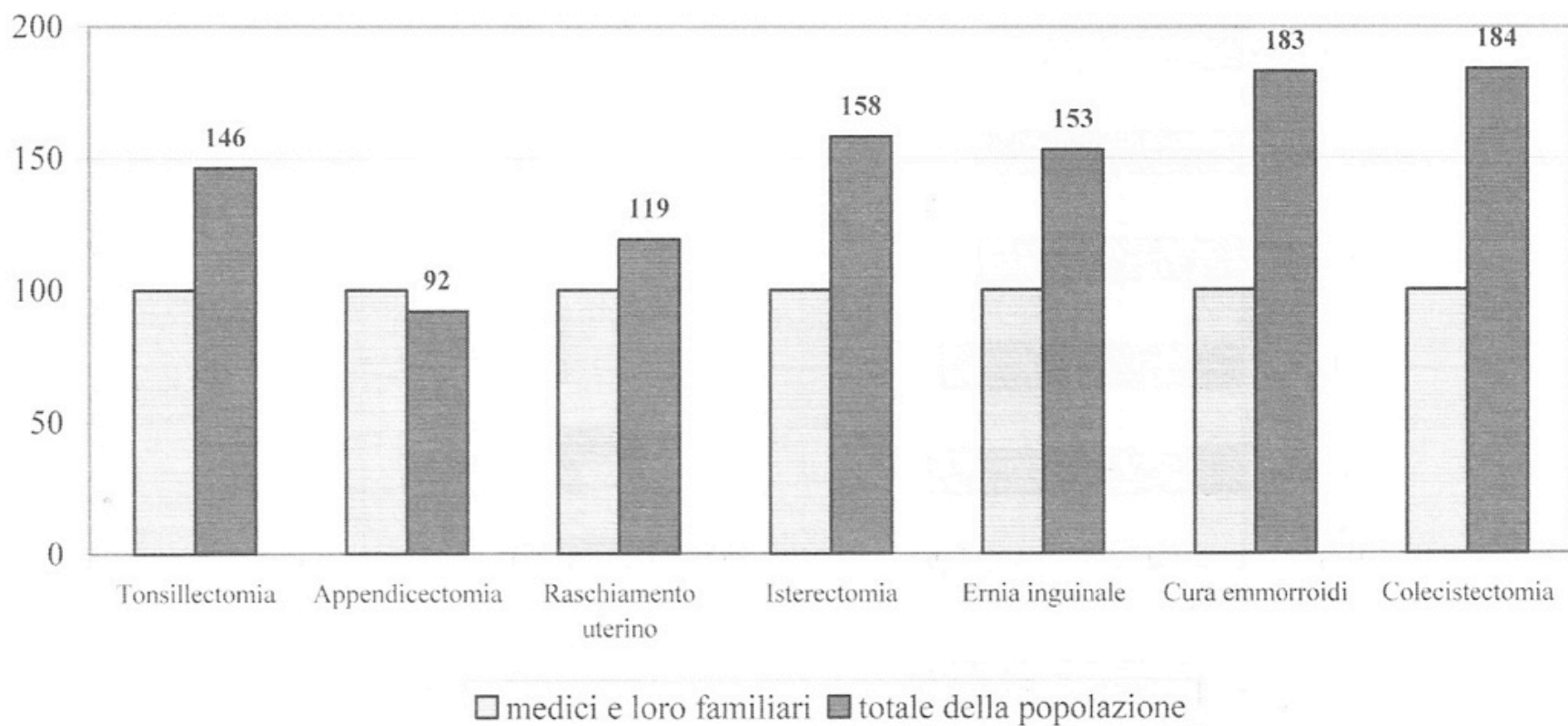
Ai camici bianchi non è andato giù per niente l'offensiva del Governo contro gli esami considerati 'inutili', soprattutto per la ventilata multa ai danni di chi eccede in richieste di accertamenti. E le associazioni di malati pronte a fare fronte comune

Dopo il decreto taglia esami Il premier ai medici: «Vi ascoltiamo»

«Se i medici ci vogliono suggerire modi diversi per tagliare gli sprechi, saremo ben felici di ascoltarli senza che si arrivi allo sciopero. Noi stiamo mettendo più soldi nella sanità». Così il premier Matteo Renzi dopo l'annuncio di scioperi contro il decreto «taglia esami», bocciato dai sindacati di categoria. Il segretario nazionale dei medici ospedalieri, Costantino Troise: «Non siamo d'accordo con il principio che i medici possano venire multati».



Fig. 8 - La diversa incidenza degli interventi chirurgici fra i medici e i loro familiari rispetto a quella di tutta la popolazione





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Registrations Closed, Full House at Preventing Overdiagnosis conference

The Preventing Overdiagnosis conference is taking place in New York City on 14-15 September 2013 in the United States, hosted by the Dartmouth Institute for Health Policy & Clinical Practice, one of the world's most renowned research centers in New-York.

February 2013)

Page 1 of 2

BMJ 2013;346:f1271 doi: 10.1136/bmj.f1271 (Published 26 February 2013)

EDITORIALS

Winding back the harms of too much medicine

Registration is opening and abstracts closing soon for our "Preventing Overdiagnosis" conference



ecg da sforzo

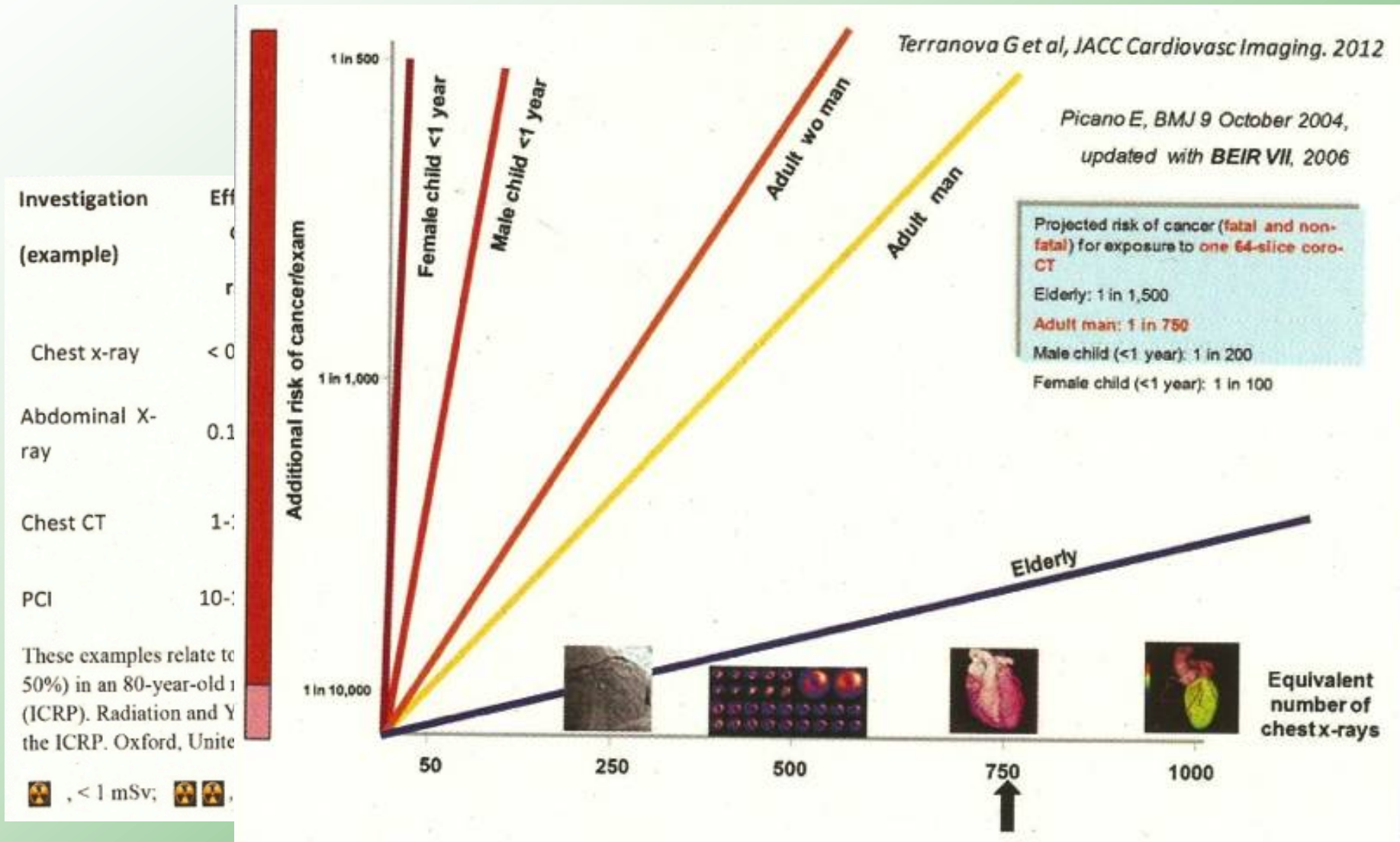
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TC coronarica

coronarografia



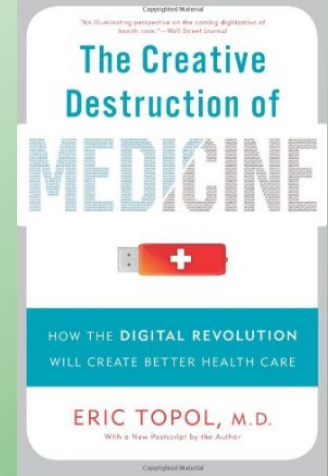
scintigrafia





Topol: Runaway Use of Radiation Harming Patients

Eric J. Topol, MD | Dec 17, 2012



The topic here is radiation and how we're not doing the right things for patients. We have a serious problem with overcooking radiation in the United States. It's by far worse here than anywhere else in the world. We have runaway uses of nuclear scans, CT scans, and PET scanning, and we don't even warn our patients; we don't give patients any data on the dangers. In my book, imaging is a really important topic because there's so much progress in imaging and use of nonionizing radiation like ultrasound or MRI, but we continue to rely heavily on scans. In cardiology, for example, there are more than 10 million nuclear scans being performed each year, mostly CT scans. We know from all the data we have today that 2%-3% of cancers in this country are related to use of medical imaging and ionized radiation.

So, why don't we tell patients when they have a particular imaging scan exactly how many millisievert (mSv) they're getting exposed to? A CT angiogram of the heart is 16 mSv; a lot is being done to try to reduce that, but that is equivalent to 800 chest x-rays. How about a typical nuclear scan? A lot of patients who are treated in cardiology get this done every year. At 41 mSv, it's equivalent to 2000 chest x-rays. But patients aren't told any of this. And not only that, but we could actually measure exactly how many mSv they got by using the same type of radiation badges that the medical professionals use when they work in a cardiac cath lab or in an x-ray suite. But we don't do that. This is a serious breach of our responsibility to patients.



Dopo il decreto taglia esami

Il premier ai medici: «Vi ascoltiamo»

«Se i medici ci vogliono suggerire modi diversi per tagliare gli sprechi, saremo ben felici di ascoltarli senza che si arrivi allo sciopero. Noi stiamo mettendo più soldi nella sanità». Così il premier Matteo Renzi dopo l'annuncio di scioperi contro il decreto «taglia esami», bocciato dai sindacati di categoria. Il segretario nazionale dei medici ospedalieri, Costantino Troise: «Non siamo d'accordo con il principio che i medici possano venire multati».