



**INTERCOOPERAR
PARA CRESCER**

◀ **28º SUESPAR** ▶



Auditoria Médica

Dr. Marcos Santos

*Sociedade Brasileira de
Auditoria Médica*

marcosrxt@gmail.com

61 983554308

Auditoria Médica

- Fundação da Sociedade Brasileira de Auditoria Médica (SBAM)
 - www.sbam.org.br
 - Reconhecimento da Área de Atuação

Fase 1: segunda metade do século XX

Fase 2: a partir do final da década de 90

Fase 3: fase da insuficiência gerencial

HMOs

Baylor University Hospital – Dallas/TX, 1929

1500 professores primários

6 US\$/ano = 21 dias de internação hospitalar

Blue Cross – Sacramento/CA, 1932

Lista de hospitais

HMOs

Baylor University Hospital – Dallas/TX, 1929

1500 professores primários

6 US\$/ano = 21 dias de internação hospitalar

Blue Cross – Sacramento/CA, 1932

Lista de hospitais

- 2ª guerra mundial
 - Emergency Price Control Act of 1942
 - Mão de obra escassa
 - Atratividade: melhores planos de saúde
 - Isenção de impostos

HMOs

Baylor University Hospital – Dallas/TX, 1929

1500 professores primários

6 US\$/ano = 21 dias de internação hospitalar

Blue Cross – Sacramento/CA, 1932

Lista de hospitais

- 2ª guerra mundial
 - Emergency Price Control Act of 1942
 - Mão de obra escassa
 - Atratividade: melhores planos de saúde
 - Isenção de impostos



1965: Medicare / Medicaid

Fase 1: segunda metade do século XX

Fase 2: a partir do final da década de 90

Fase 3: fase da insuficiência gerencial



Saúde

OMS: completo bem estar físico, mental e social

Constituição 1988, artigo 196: a saúde e um direito de todos e dever do Estado, mediante políticas sociais e econômicas que visem a redução do risco de doenças, de outros agravos e o acesso universal igualitário às ações e serviços para sua promoção, proteção e recuperação

Barroso LR. Vinte anos da Constituição brasileira de 1988: o Estado a que chegamos. Cadernos da Escola de Direito. 2008;1(8).



MOVIMENTO
SAUDE

SIN

D. DE CARIAS CUT

M D
DT

TAS

SAUDE

VOLUME 25 · NUMBER 15 · MAY 20 2007

JOURNAL OF CLINICAL ONCOLOGY

ORIGINAL REPORT

Erlotinib Plus Gemcitabine Compared With Gemcitabine
Alone in Patients With Advanced Pancreatic Cancer:
A Phase III Trial of the National Cancer Institute
of Canada Clinical Trials Group

Malcolm J. Moore, David Goldstein, John Hamm, Arie Figer, Joel R. Hecht, Steven Gallinger, Heather J. Au, Pawel Murawa, David Walde, Robert A. Wolff, Daniel Campos, Robert Lim, Keyue Ding, Gary Clark, Theodora Voskoglou-Nomikos, Mieke Ptasynski, and Wendy Parulekar

A

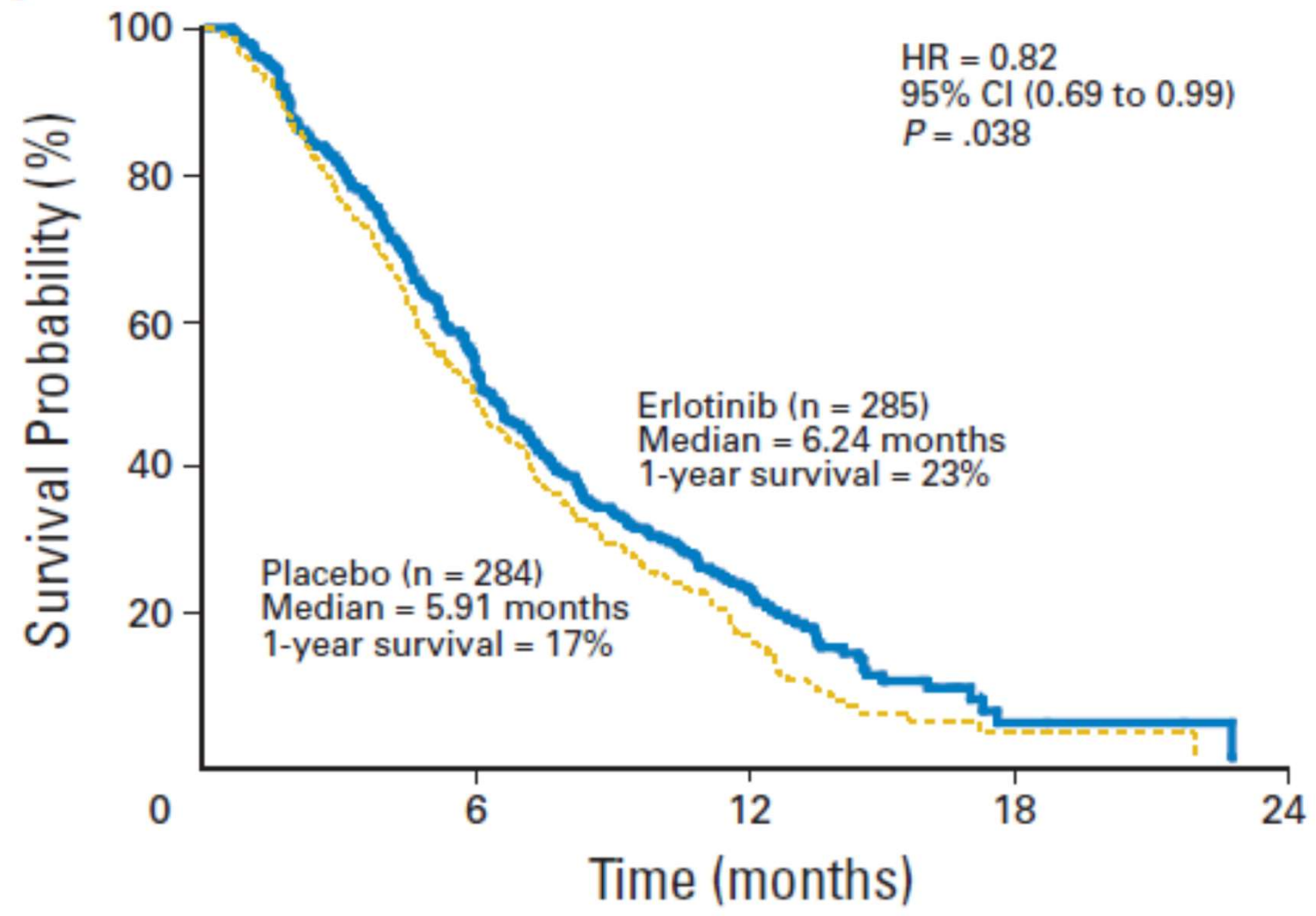
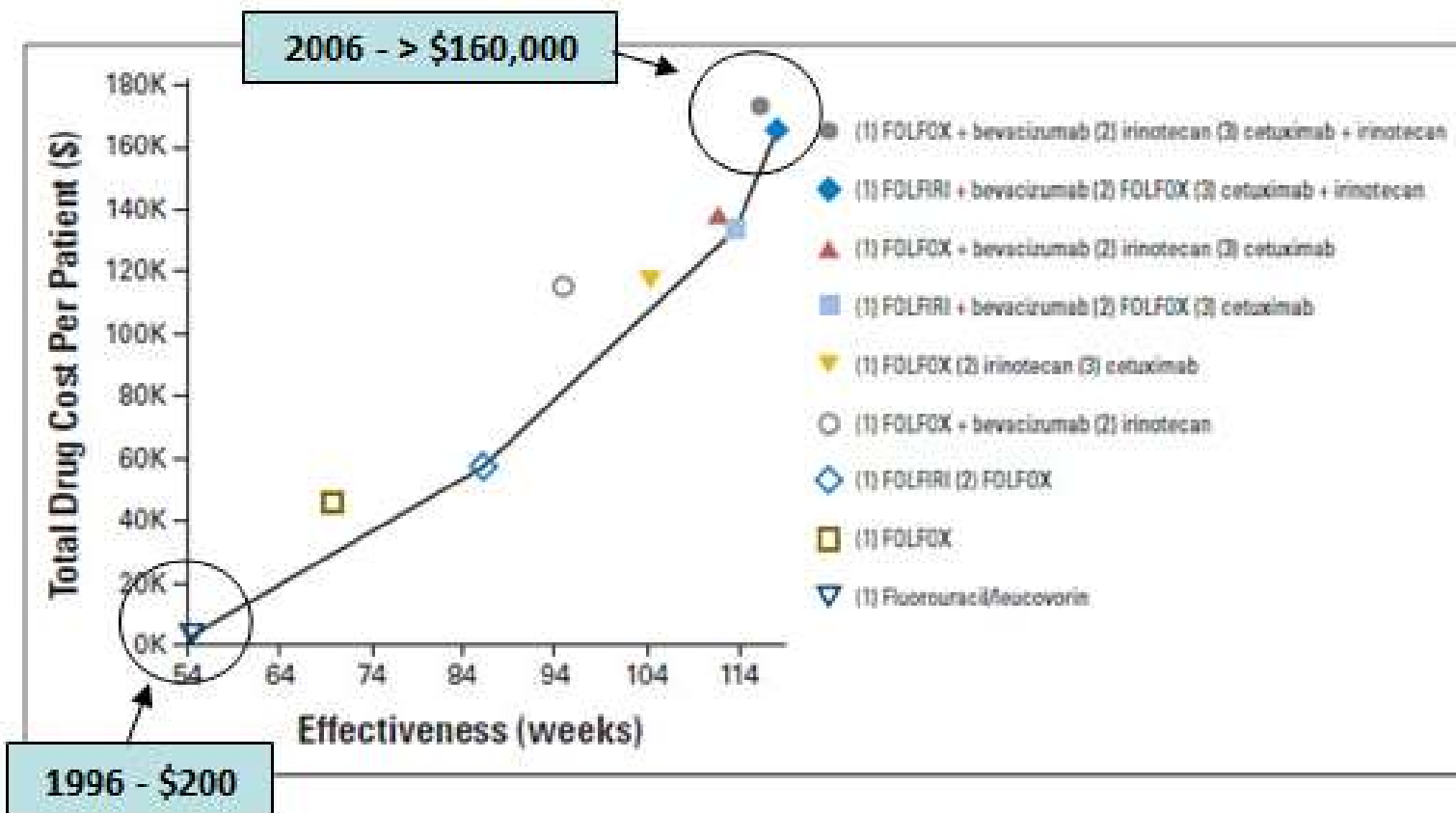


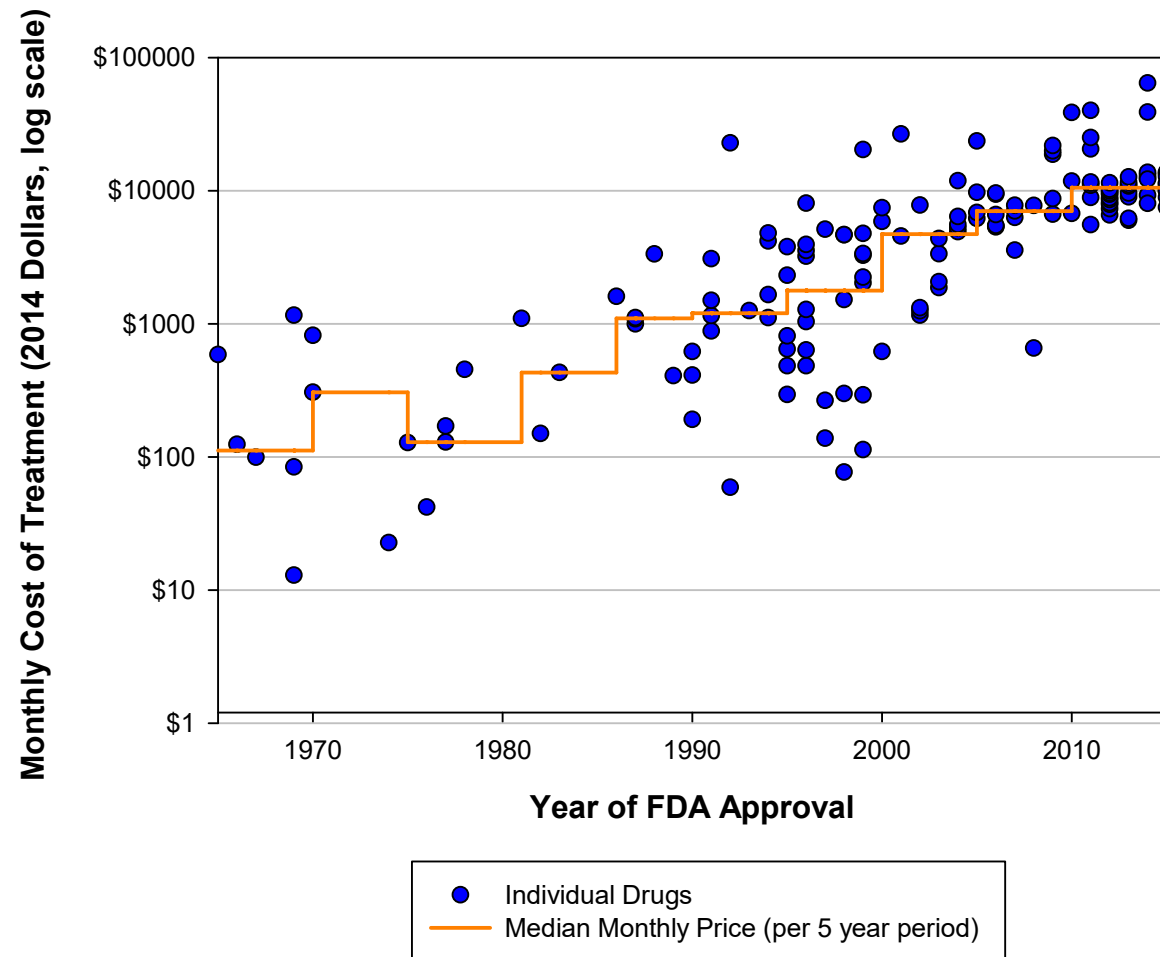
Table 1. Incremental Efficacy, Costs, and Cost-Effectiveness Ratios for Gemcitabine Plus Erlotinib Compared With Gemcitabine Alone for Advanced Pancreatic Cancer

Variable*	Value
End point benefit per person for erlotinib plus gemcitabine*	
OS benefit adjusted for QOL, days	
Low impact of diarrhea	9.36
High impact of diarrhea	7.98
Lifetime incremental costs per person for erlotinib plus gemcitabine*, \$	
Cost of erlotinib (weighted for dose reductions and early discontinuations)	10,293
Cost of incremental adverse effects (weighted by frequency of events)	780
Cost of incremental days survived (third-party payer for palliative care)	4,101
Total incremental costs*	15,194
Incremental cost per life year saved*†	410,000
Incremental cost per quality-adjusted life year*† (low impact of diarrhea to high impact of diarrhea)	430,000-510,000



Adapted from: Meropol, N, Schulman, Cost of Cancer Care: Issues and Implications, *J Clin Oncol* 2007;25:180-186.

Monthly and Median Costs of Cancer Drugs at the Time of FDA Approval 1965-2015



Source: Peter B. Bach, MD, Memorial Sloan-Kettering Cancer Center

JUL 14 | MORE ON MEDICARE & MEDICAID

New Alzheimer's drug could cost Medicaid more than \$2 billion

Medicaid will see increased costs through beneficiaries' direct payment of the drug, plus potentially higher Medicare premium payments.



Jeff Lagasse, Associate Editor



HIMSS 21

August 10 - 11 | Las Vegas
August 18 | Digital

Career Fair

Your next career could be waiting for you.

- Meet one-on-one with recruiters
- Attend education sessions and networking activities
- Get your resume and LinkedIn profile reviewed and a new professional headshot

Register now

*Complimentary for HIMSS21 attendees



Democracy: State Of Our Union

Mayor Rahm Emanuel, David Gregory, Michael Duffy, Nancy Gibbs, Mark Halperin, John Helleman, & Richard Stengel

October 8, 7:00 – 8:30 pm / Oriental Theatre / \$15 per ticket

think out loud



CHICAGO
IDEAS
WEEK

HEALTH CARE

\$750 billion

Amount wasted yearly by the U.S. health care system — roughly 30 cents of every medical dollar — through unnecessary care, complex paperwork, fraud and other misspending, according to a [report](#) from the Institute of Medicine. The report comes amidst accusations from President Barack Obama and Republican Mitt Romney that the other candidate wants to cut Medicare and risk seniors' health. But the report concludes that substantial cuts are still possible, without rationing care and possibly even improving it. [\[via the Associated Press\]](#)

September 7, 2012 |



6



33



2



1

Related Topics: [Facts & Statistics](#), [Health Care](#), [Medicare & Medicaid](#), [Numbers](#), [Policy & Industry](#)

Paid For By: Patriot Majority USA



Stop The
 +1 [FeedAgenda.com](#)

Recent Topics

[All Topics](#)



Value-Based Care

Understanding the 25% of Healthcare Spending Estimated to be Waste

How value-based care creates a more viable future.

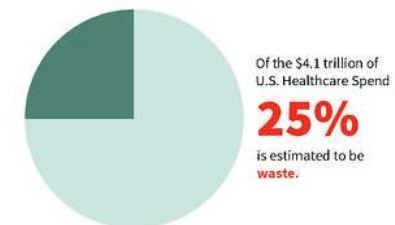
Jun 28, 2022

Healthcare waste is, unfortunately, a shared experience – one more common than most realize.

Michael Gonzales, CEO of HNI Healthcare, said, “We all have, or know of someone who has, encountered inefficient care and the resulting financial strain. That’s why, at HNI, we’re fostering a system that breaks this cycle. We’re focused on creating **value for all** – patients, providers, and hospitals alike.”

What is healthcare waste?

Healthcare waste is defined as “medical services that provide little or no benefit to the consumer, or as avoidable overspending on services that could be more efficiently delivered” (*CareCentrix*) – including mounting administrative costs and redundant tests or procedures.



JAMA | Special Communication

Waste in the US Health Care System

Estimated Costs and Potential for Savings

William H. Shrank, MD, MSHS; Teresa L. Rogstad, MPH; Natasha Parekh, MD, MS

IMPORTANCE The United States spends more on health care than any other country, with costs approaching 18% of the gross domestic product (GDP). Prior studies estimated that approximately 30% of health care spending may be considered waste. Despite efforts to reduce overtreatment, improve care, and address overpayment, it is likely that substantial waste in US health care spending remains.

OBJECTIVES To estimate current levels of waste in the US health care system in 6 previously developed domains and to report estimates of potential savings for each domain.

 [Viewpoint](#)

 [Audio and Supplemental content](#)

Table 1. Six Waste Domains With Cost and Intervention Components

Berwick and Hackbarth Definition ³	Targeted Cost Components	Targeted Intervention Components
Failure of Care Delivery		
"[W]aste that comes with poor execution or lack of widespread adoption of known best care processes, including, for example, patient safety systems and preventive care practices that have been shown to be effective. The results are patient injuries and worse clinical outcomes."	Clinician- or hospital-related inefficiency: variability in care, inefficient use of high-cost clinicians or hospitals Practice- and system-based inefficiency: inefficient clinic processes, redundant testing Medical errors or adverse events Lack of adoption of preventive care practices	Clinical pathways, centers of excellence, physician/hospital benchmarking, bundled payment models Quality improvement initiatives Patient safety initiatives or hospital-acquired condition reduction Primary, secondary, and tertiary prevention initiatives
Failure of Care Coordination		
"[W]aste that comes when patients fall through the slats in fragmented care. The results are complications, hospital readmissions, declines in functional status, and increased dependency, especially for the chronically ill, for whom care coordination is essential for health and function."	Unnecessary ED visits or admissions Unnecessary readmissions Avoidable complications	Interventions focused on reducing admissions: urgent care, telehealth or retail clinics, observation units, ED co-pay increases, high-user interventions Transitions of care and readmission initiatives, hospital readmissions reduction program Effective care management for medically complex patients
Overtreatment or Low-Value Care		
"[W]aste that comes from subjecting patients to care that, according to sound science and the patients' own preferences, cannot possibly help them—care rooted in outmoded habits, supply-driven behaviors, and ignoring science. Examples include excessive use of antibiotics, use of surgery when watchful waiting is better, and unwanted intensive care at the end of life for patients who prefer hospice and home care."	Overtreatment or overuse of low-value treatments (medications and procedures) Overtesting or overdiagnosis Overuse in end-of-life care	Clinician facing: choosing wisely, clinician feedback, clinical pathways, stepped care, incorporating low-value care in quality measures, shared decision-making Insurance facing: prior authorization (for medications, testing, and procedures) Pharmacy focused: prior authorization, formulary design, exclusivity or closed classes, indication-based pricing, generics or biosimilars, early palliative care and hospice efforts
Pricing Failure		
"[W]aste that comes as prices migrate far from those expected in well-functioning markets, that is, the actual costs of production plus a fair profit. For example, because of the absence of effective transparency and competitive markets, US prices for diagnostic procedures such as MRI and CT scans are several times more than identical procedures in other countries."	Variability and inflation in pricing of medications, testing, procedures, devices, and durable medical equipment	Insurance facing: efforts to standardize prices of services; value-based benefit design; negotiations for services Pharmacy focused: drug price negotiations, value-based contracting for drugs and services Patient facing: cost transparency initiatives
Fraud and Abuse		
"[W]aste that comes as fraudsters issue fake bills and run scams, and also from blunt procedures of inspection and regulation that everyone faces because of the misbehaviors of a very few."	Costs of fraud and abuse	Interventions that address costs of fraud and abuse
Administrative Complexity		
"[W]aste that comes when government, accreditation agencies, payers, and others create inefficient or misguided rules. For example, payers may fail to standardize forms, thereby consuming limited physician time in needlessly complex billing procedures."	Billing and coding costs Physician administrative burden Insurance administrative burden, inefficiencies	Interventions to facilitate billing and coding Elimination of processes that do not improve quality and access to care and do not reduce costs Streamlining administrative personnel and processes

Abbreviations: CT, computed tomography; ED, emergency department; MRI, magnetic resonance imaging.

CONCLUSIONS AND RELEVANCE In this review based on 6 previously identified domains of health care waste, the estimated cost of waste in the US health care system ranged from \$760 billion to \$935 billion, accounting for approximately 25% of total health care spending, and the projected potential savings from interventions that reduce waste, excluding savings from administrative complexity, ranged from \$191 billion to \$282 billion, representing a potential 25% reduction in the total cost of waste. Implementation of effective measures to eliminate waste represents an opportunity reduce the continued increases in US health care expenditures.

7 Ways Money Gets Wasted in Healthcare

Fraude

Falta de coordenação entre os centros (exames ou cuidados repetidos)

Overtreatment

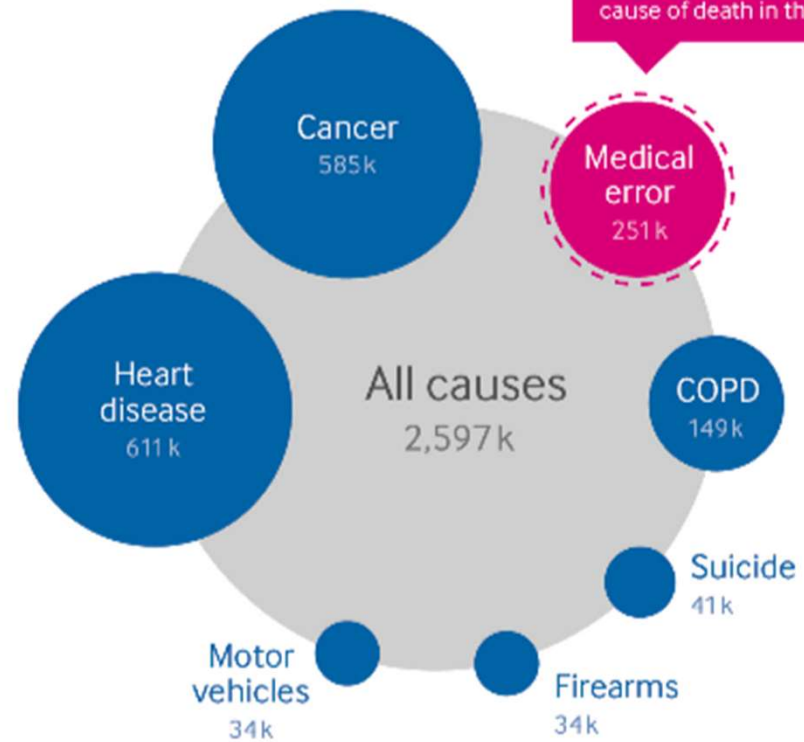
Custos administrativos

Transparência nos preços

Erros

Pouca priorização na prevenção

Causes of death, US, 2013



Based on our estimate, medical error is the 3rd most common cause of death in the US

However, we're not even counting this - medical error is not recorded on US death certificates

© 2016 BMJ Publishing group Ltd.

Data source:
http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_02.pdf

Fig 1 Most common causes of death in the United States, 2013²

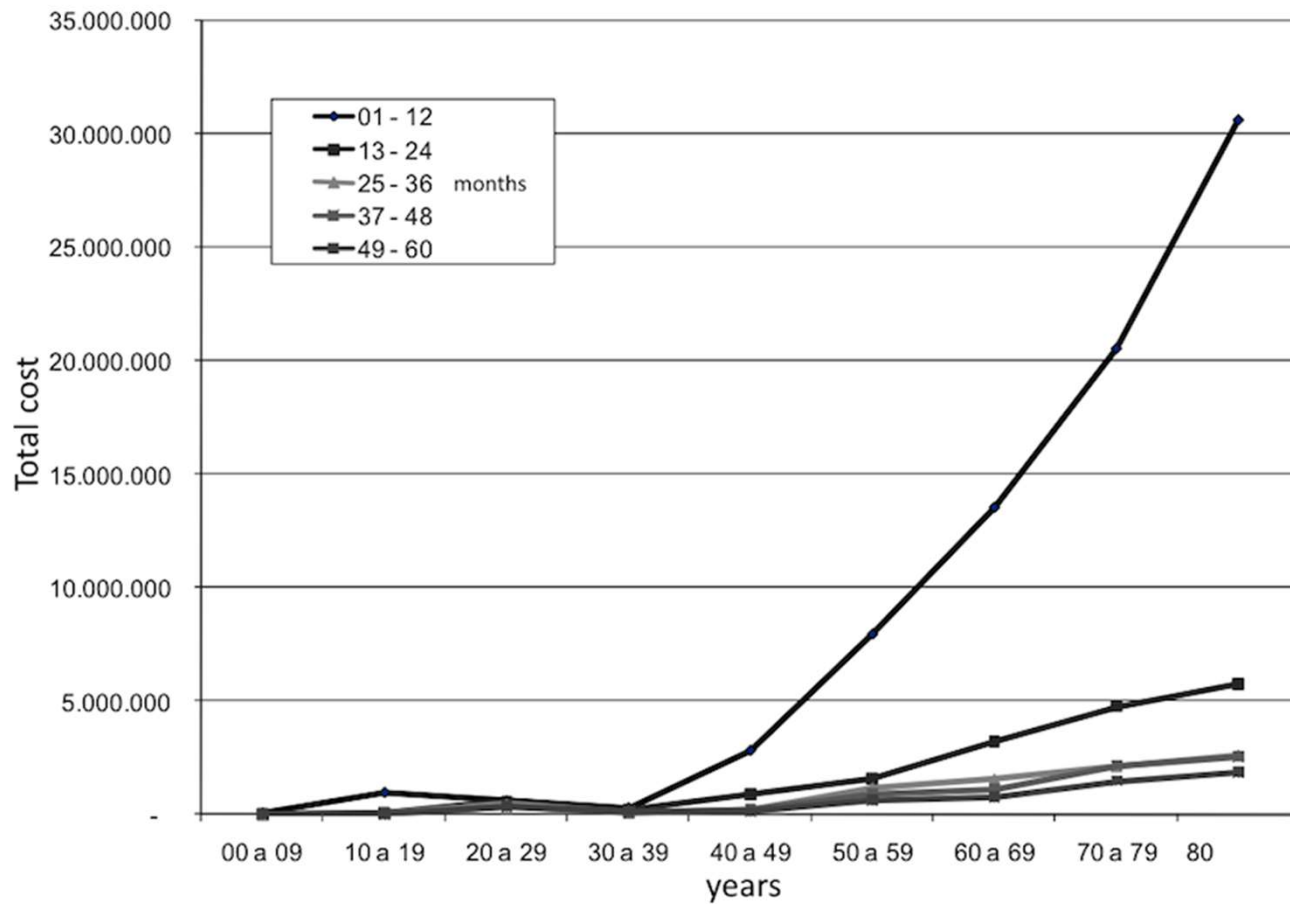
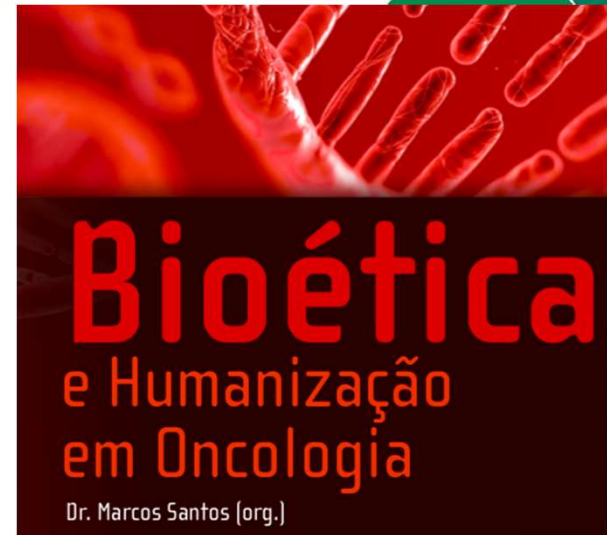


Figure 2: Cost in the months before death, by age group



Santos MA. New Challenges in Oncology for the Brazilian Private Health Sector: Specialists Concerns after the ISPOR International Congress in Boston, MA, United States, 2017. Value in Health Reg Issues *in press*

Futilidade

- Coisa sem utilidade, frívola
- Em medicina: atitude que não resulta em benefício para o paciente
- NA PRÁTICA, É MAIS FÁCIL FAZER

Saúde Pública

- Recursos escassos
- Problemas
 - Negros são menos tratados do que brancos
 - Não segurados são menos tratados do que segurados
 - Segurados, com bons seguros de saúde, potencialmente estão mais sujeitos a atitudes médicas fúteis...



Mota JA. Quando um tratamento torna-se fútil? Rev Bioética 1999 , vol. 7 (1)

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Early Palliative Care for Patients with Metastatic Non–Small-Cell Lung Cancer

Jennifer S. Temel, M.D., Joseph A. Greer, Ph.D., Alona Muzikansky, M.A.,
Emily R. Gallagher, R.N., Sonal Admane, M.B., B.S., M.P.H.,
Vicki A. Jackson, M.D., M.P.H., Constance M. Dahlin, A.P.N.,
Craig D. Blinderman, M.D., Juliet Jacobsen, M.D., William F. Pirl, M.D., M.P.H.,
J. Andrew Billings, M.D., and Thomas J. Lynch, M.D.

The Palliation of Symptomatic Osseous Metastases

Final Results of the Study by the Radiation Therapy Oncology Group

DAPHNE TONG, MD,* LAURENCE GILLYCK, PhD,† AND FRANK R. HENDRICKSON, MD‡

Different dose fractionation irradiation schedules have been evaluated in a randomized Radiation Therapy Oncology Group (RTOG) study to determine their palliative effectiveness in patients with osseous metastases. The frequency, promptness and duration of pain relief were utilized as measures of response. Ninety percent of patients experienced some relief of pain and 54% achieved eventual complete pain relief. Important prognosticators included the initial pain score and the site of the primary lesions. Administration of steroid or chemotherapy during the one-month on-study period did not influence the frequency of pain relief. The low-dose, short-course schedules were as effective as the high-dose protracted programs.

Cancer 50:893–899 **1982.**









Ela passou a maior parte de sua vida arrancando aplausos, mas na hora

Elis Regina fez todo mundo chorar

ELIS

SOBRELA. Ao mesmo tempo, ela se tornou a maior cantora brasileira de todos os tempos. Ela não apenas cantava, ela fazia o povo chorar. Ela era a rainha do rock brasileiro, a cantora mais amada do Brasil. Ela morreu em um acidente de trânsito em 1982, aos 35 anos. Sua morte foi um choque para o Brasil inteiro. Ela deixou um legado que continua a inspirar gerações de músicos e fãs.





Ela passou a maior parte de sua vida arrancando aplausos, mas na hora

Elis Regina fez todo mundo chorar

ELIS

SORRIDA. Ao sofrer, foi a quem fez todo mundo chorar. Ela passou a maior parte de sua vida arrancando aplausos, mas na hora da morte fez todo mundo chorar. Elis Regina morreu de câncer no estômago em 20 de junho de 1982, aos 38 anos. Ela foi sepultada no Cemitério de São João Batista, em São Paulo, com um funeral que reuniu milhares de fãs e admiradores. O corpo foi velado no Teatro Municipal de São Paulo, onde ela havia se apresentado em sua última performance em 1981. A morte de Elis Regina foi considerada uma grande perda para o Brasil e o mundo da música.

Elis Regina nasceu em 1945, em São Paulo. Ela começou a cantar aos 15 anos e se tornou uma das maiores cantoras do Brasil. Seu estilo musical era uma mistura de samba, bossa nova e rock. Ela foi casada com o cantor Sérgio Frusacari e teve dois filhos. Ela morreu de câncer no estômago, uma doença que ela havia escondido por muitos anos.

Seu legado é imortalizado em sua música e em sua personalidade. Ela foi uma verdadeira rainha do Brasil e do mundo da música. Sua morte foi um grande choque para todos que a conheciam e para quem amava sua música.





Ela passou a maior parte de sua vida arrancando aplausos, mas na hora

Elis Regina fez todo mundo chorar

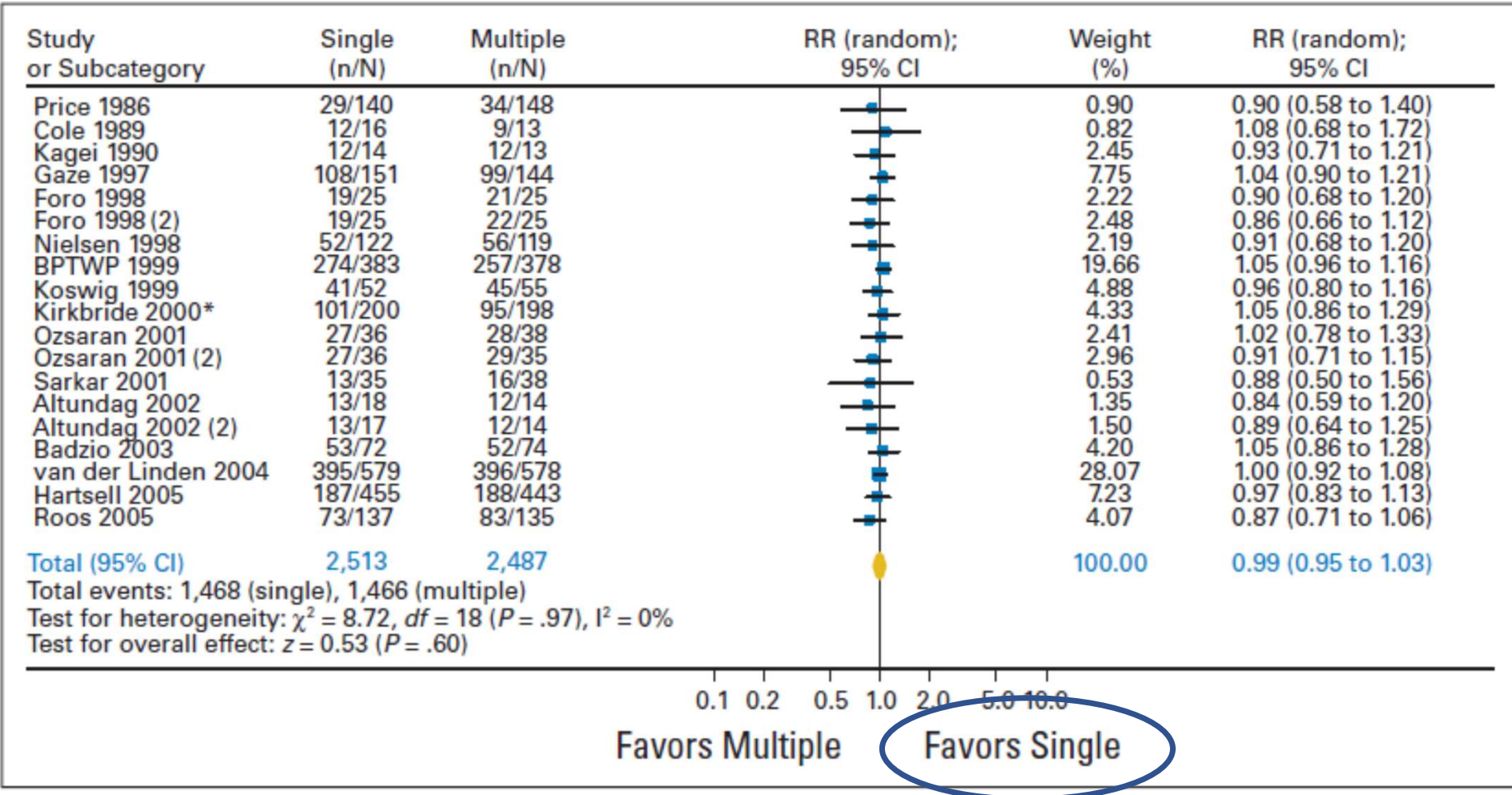
ELIS

SORRIDA. Ao morrer, ela não teve tempo de fazer o que mais gostava: cantar. Ela morreu em um acidente aéreo, em um voo particular, no dia 20 de setembro de 1969, aos 34 anos. Ela estava em um voo particular de São Paulo para Rio de Janeiro, com uma parada em Belo Horizonte. Ela estava com uma gripe e estava tomando um remédio para a gripe. Ela estava com uma gripe e estava tomando um remédio para a gripe. Ela estava com uma gripe e estava tomando um remédio para a gripe.



Ninety percent of patients with painful osseous metastases experience some relief of pain and 54% eventually obtain complete relief when they receive palliative radiotherapy. There were no significant differences in the frequency of relief among the various treatment arms in the solitary metastasis and multiple metastases groups. Both the primary site and the initial pain score were prognostic factors for pain relief, with patients with breast and prostate primaries or initial pain scores under 9 doing better. All treatment dose schedules were equally effective in palliation. The site of metastasis was not a factor in relief although pelvic metastases were slower in response.

19 estudos



Chow E, Zeng L, Salvo N, Dennis K, Tsao M, Lutz S. Update on the systematic review of palliative radiotherapy trials for bone metastasis. Clin Oncol. 2012;112-24.

Metástases ósseas

Tratamento: Radioterapia

26 ensaios clínicos randomizados

+ de 5000 pacientes

Sempre o mesmo resultado

Não importa a dose

Não importa o fracionamento



O controle da dor é sempre o mesmo!

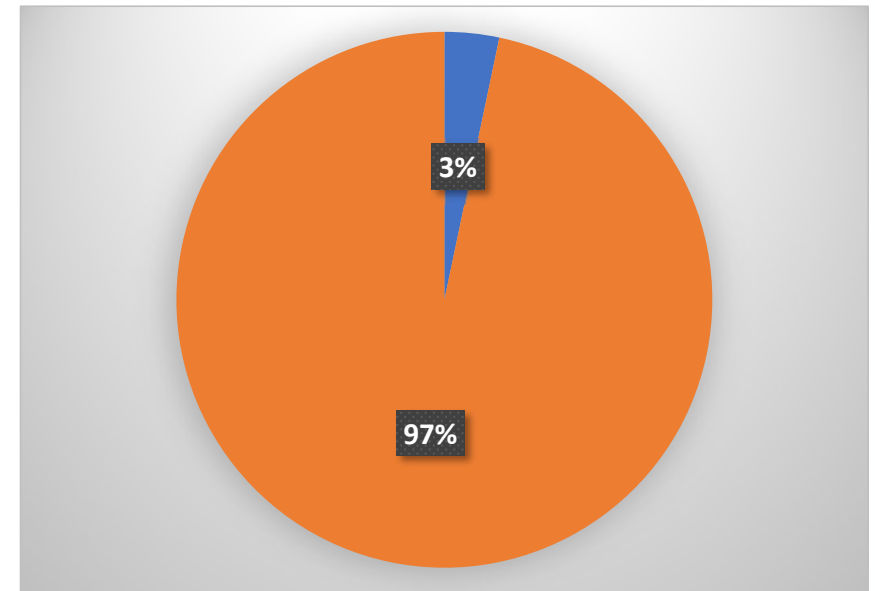
1. Chow E, Zeng L, Salvo N, Dennis K, Tsao M, Lutz S. Update on the systematic review of palliative radiotherapy trials for bone metastasis. Clin Oncol. 2012: p. 112-24.
2. Chow E, Harris K, Fan G, Tsao M, Sze W. Palliative radiotherapy trials for bone metastases: a systematic review. J Clin Oncol. 2007: p. 1423-36.

Metástases ósseas

Dose única de Radioterapia

EUA: 3,3% dos beneficiários do *Medicare*

Fairchild A, Barnes E, Ghosh S, Ben-Josef E, Roos D, Hartsell W, et al. International patterns of practice in palliative radiotherapy for painful bone metastases: evidence-based practice? *Int J Radiat Oncol Biol Phys.* 2009: p. 1501-10



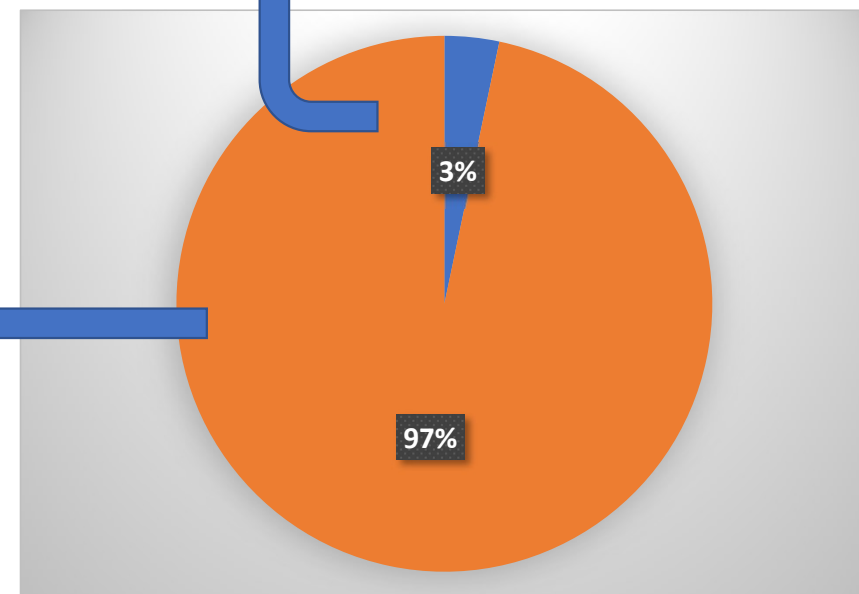
Metástases ósseas

Dose única de Radioterapia

EUA: 3,3% dos beneficiários do *Medicare*

2221,00 US\$ (2003)

630,00 US\$ (2003)

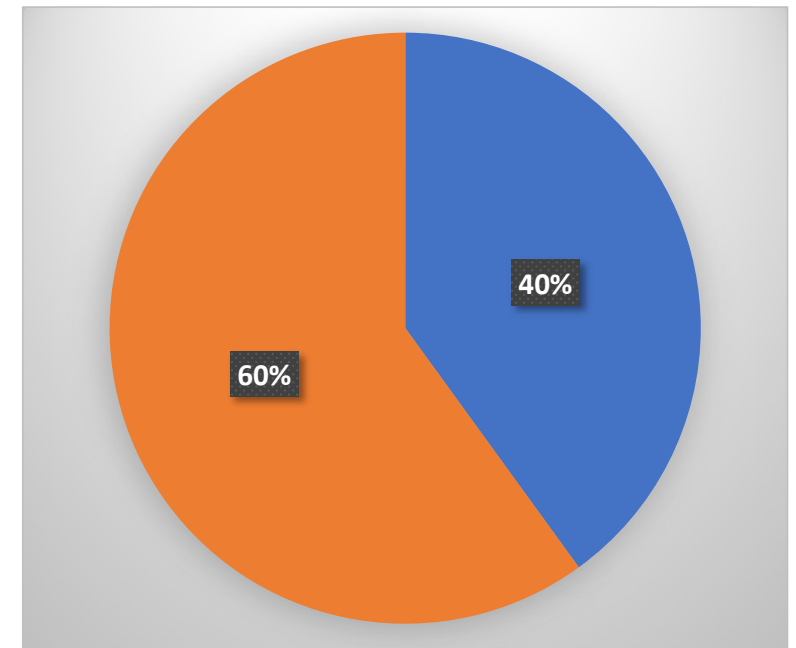


Fairchild A, Barnes E, Ghosh S, Ben-Josef E, Roos D, Hartsell W, et al. International patterns of practice in palliative radiotherapy for painful bone metastases: evidence-based practice? *Int J Radiat Oncol Biol Phys.* 2009; p. 1501-10

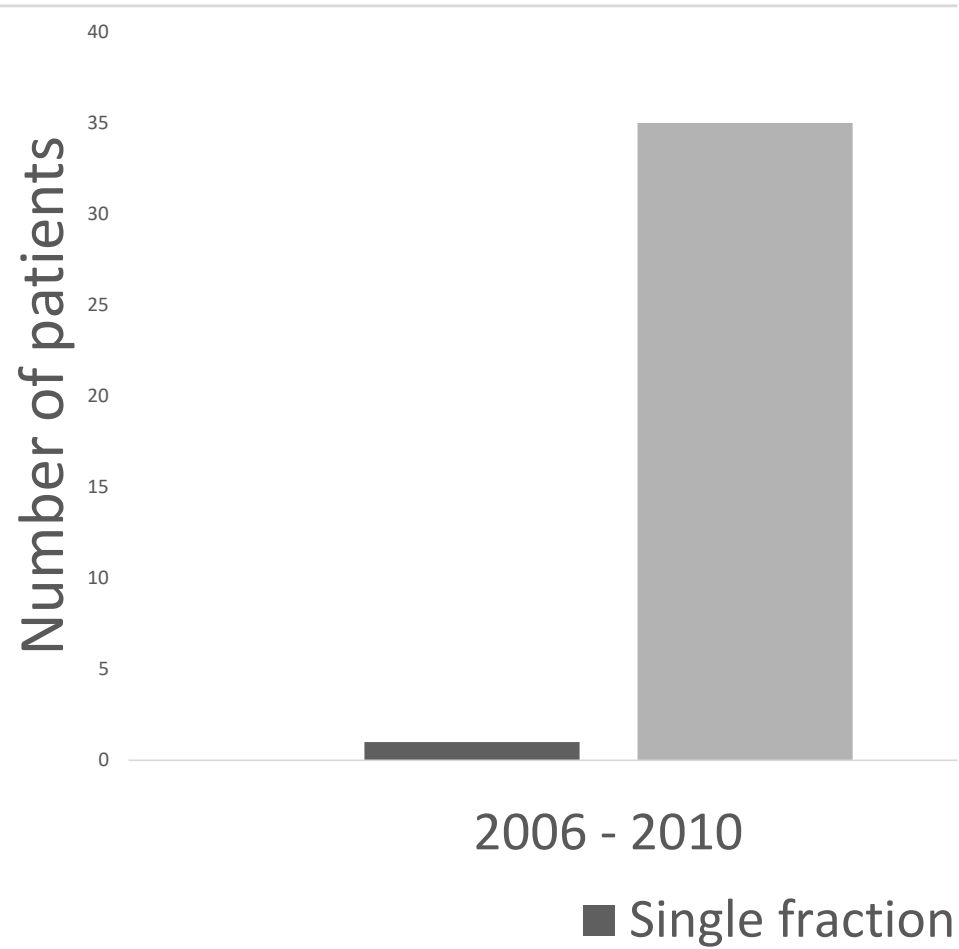
Metástases ósseas

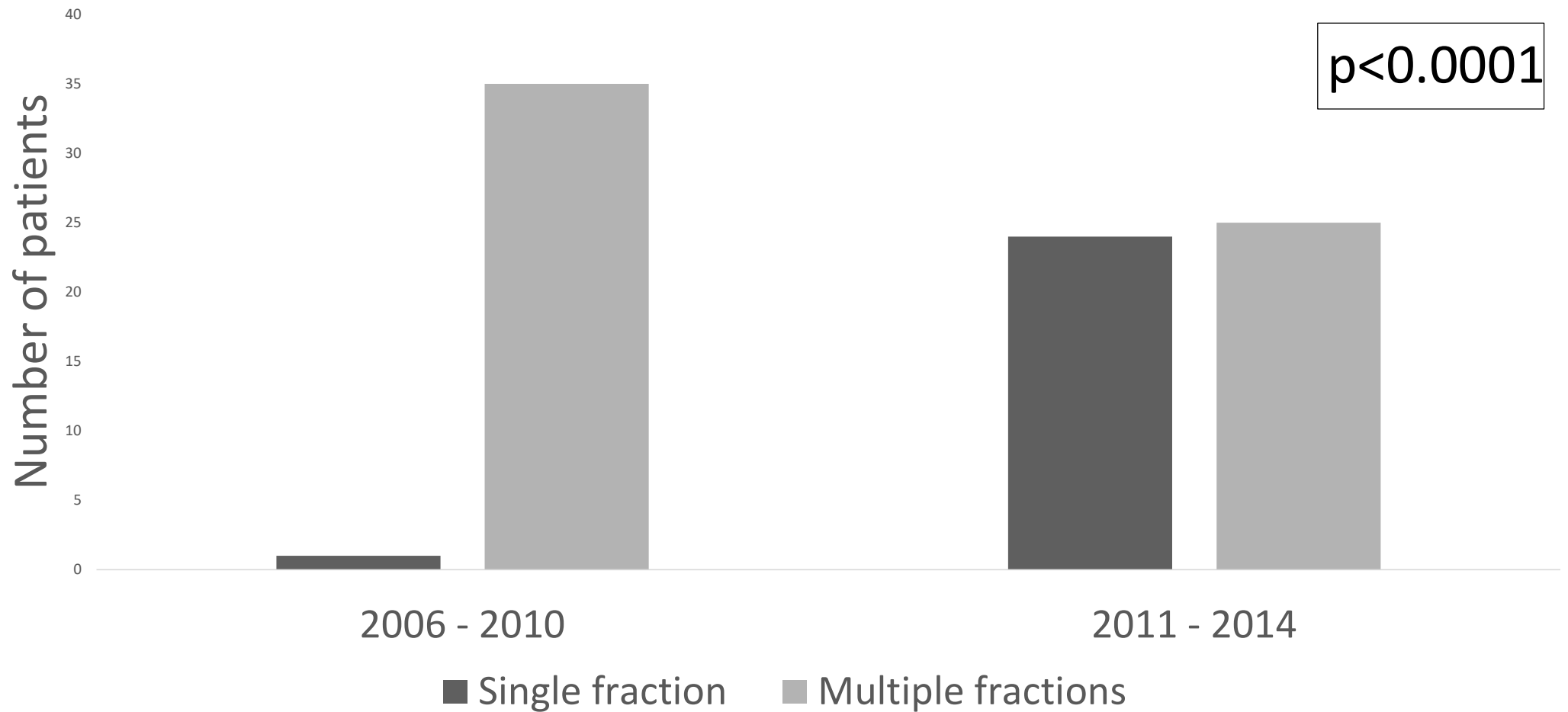
Dose única de Radioterapia

Canadá/Noruega: 40% dos pacientes



Nieder C, Pawinski A, Dalhaug A. Continuous controversy about radiation oncologists' choice of treatment regimens for bone metastases: should we blame doctors, cancer-related features, or design of previous clinical studies? Radiother Oncol. 2013: p. 85





PAPER

The rise of reimbursement-based medicine: the case of bone metastasis radiation treatment

Marcos Santos,^{1,2} Jan Helge Solbakk,^{2,3} Volnei Garrafa²

Venho por meio esta solicitar o inicio de tratamento com Radioterapia para o paciente [REDACTED] 67 anos, portador do CID 10 C61.9, KPS 80, bom estado geral apresenta RNM de coluna dorsal (02/05/17): lesões ósseas caracterizadas D3, D6, D10, D12, lesão em D10 comprime o saco dural, RNM de coluna Lombar (27/04/17): lesão óssea T12, L1, L2, L3, L5, S1, RMN de bacia (02/05/17): lesões ilíacos, fêmur e S1.

Radioterapia convenplanejamento computadorizado:

Coluna Dorsal: 4000cGy(200cGY/dia) - 40 campos

Coluna Lombo - Sacra: 4000cGy(200cGy/dia) - 40 campos

Oso Ilíaco a direita : 3420cGy(180cGy/dias) - 38 campos

Fêmur E : 3420cGy(180cGy/dia) – 38 campos OBS: Acrescento pedido de Radioterapia em fêmur E de acordo com solicitação do ortopedista Victor Jorge Guerreiro.

TOTAL : 156 CAMPOS.

Sabemos que a radioterapia com multi-fracionamento é melhor para remuneração do osso; previne fraturas patológicas, apresenta menor recorrência de compressão medular, maior alívio da dor. Este tratamento é o que melhor atende ao paciente, visto também que a menor dose dia diminui efeitos colaterais de vômitos e diarreia por campos extensos, diminui internações por interconrrencias

RADES, D.et al Treatment of painful bone metastases. Nat. Rev. Clin. Oncol. v7, 220-229 (2010).

Research

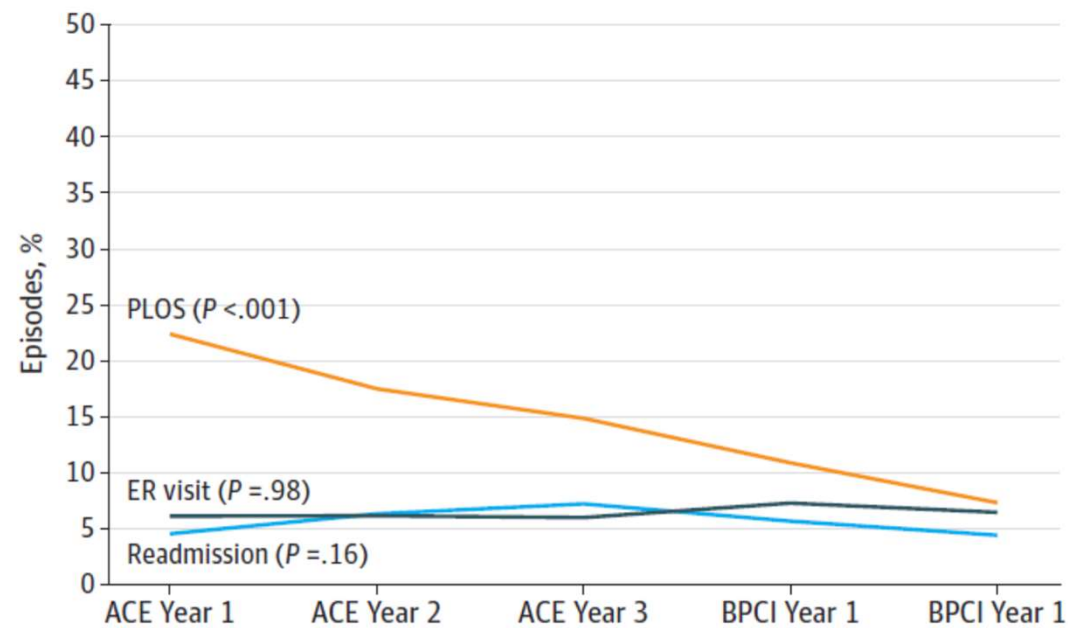
JAMA Internal Medicine | [Original Investigation](#) | HEALTH CARE REFORM

Cost of Joint Replacement Using Bundled Payment Models

Amol S. Navathe, MD, PhD; Andrea B. Troxel, ScD; Joshua M. Liao, MD; Nan Nan, MS;
Jingsan Zhu, MS; Wenjun Zhong, PhD; Ezekiel J. Emanuel, MD, PhD

Navathe AS, Troxel AB, Liao JM, Nan N, Zhu J, Zhong W, et al. Cost of joint replacement using bundled payment models. JAMA internal medicine. 2017;177(2):214-22.

Figure 2. Quality of Care for Major Joint Replacements of Lower Extremities With and Without Major Complications or Comorbidities as Measured by ER Visits, Readmissions, and PLOS Over ACE and BPCI



Navathe AS, Troxel AB, Liao JM, Nan N, Zhu J, Zhong W, et al. Cost of joint replacement using bundled payment models. JAMA internal medicine. 2017;177(2):214-22.

The NEW ENGLAND JOURNAL *of* MEDICINE

SPECIAL ARTICLE

The Long-Term Effect of Premier Pay for Performance on Patient Outcomes

Ashish K. Jha, M.D., M.P.H., Karen E. Joynt, M.D., M.P.H., E. John Orav, Ph.D.,
and Arnold M. Epstein, M.D.

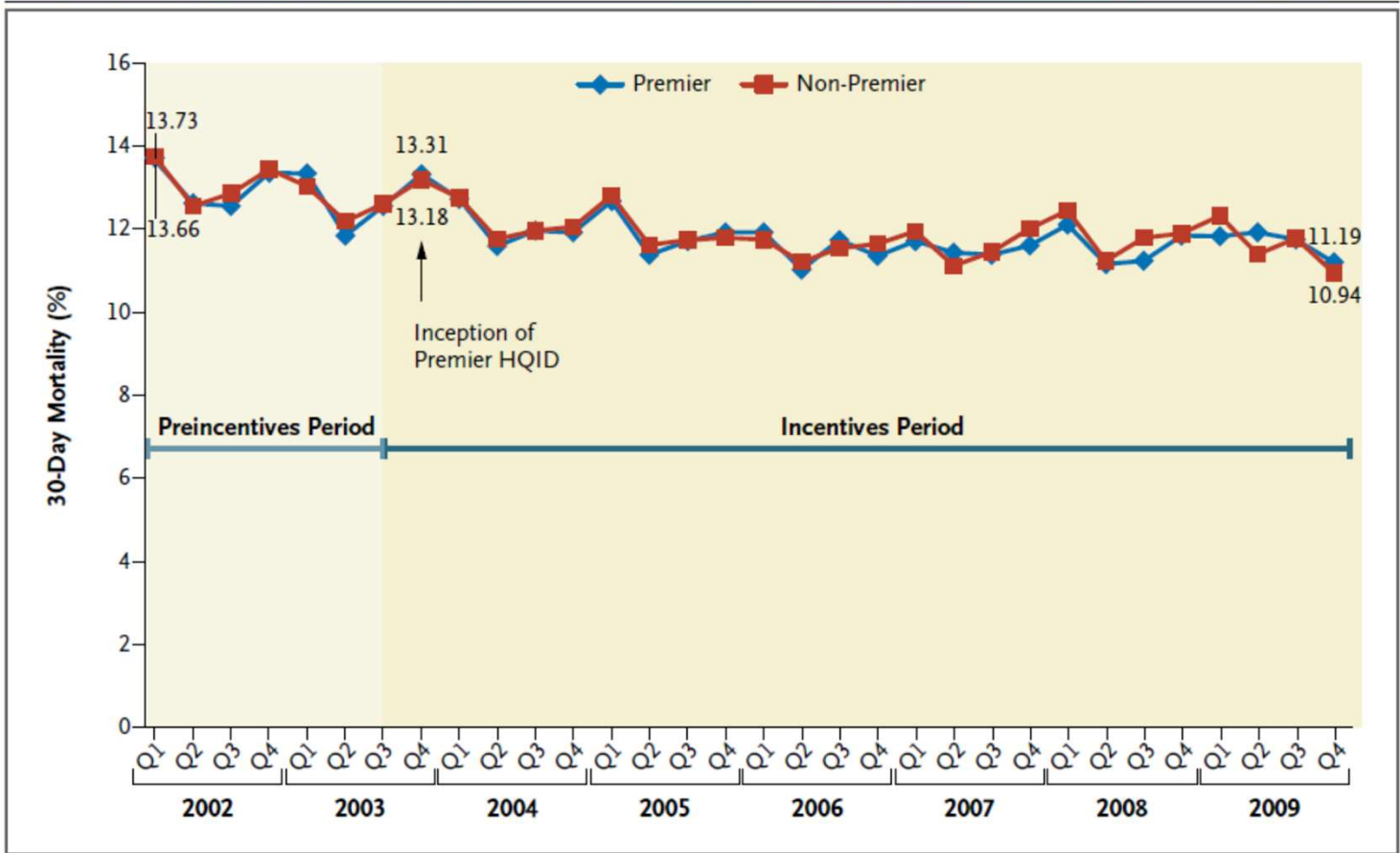


Figure 1. Mortality at 30 Days among All Hospitals, According to Pay-for-Performance Status, 2002–2009.

The rates have been adjusted for patient and hospital characteristics and include all study conditions. HQID denotes Hospital Quality Incentives Demonstration.

Jha AK, Joynt KE, Orav EJ, Epstein AM. The Long-Term Effect of Premier Pay for Performance on Patient Outcomes. *New England Journal of Medicine*. 2012;366(17):1606-15.

bullets

Médicos tem recebido até 10% em seus pagamentos (EUA), mas este montante ainda é insuficiente para mudança no comportamento

Médicos foram treinados para atuarem individualmente. Novos métodos de pagamento necessitam de uma mudança nesta cultura

Metodologia de mensuração desenhada por indivíduos que não atuam na prática médica diária

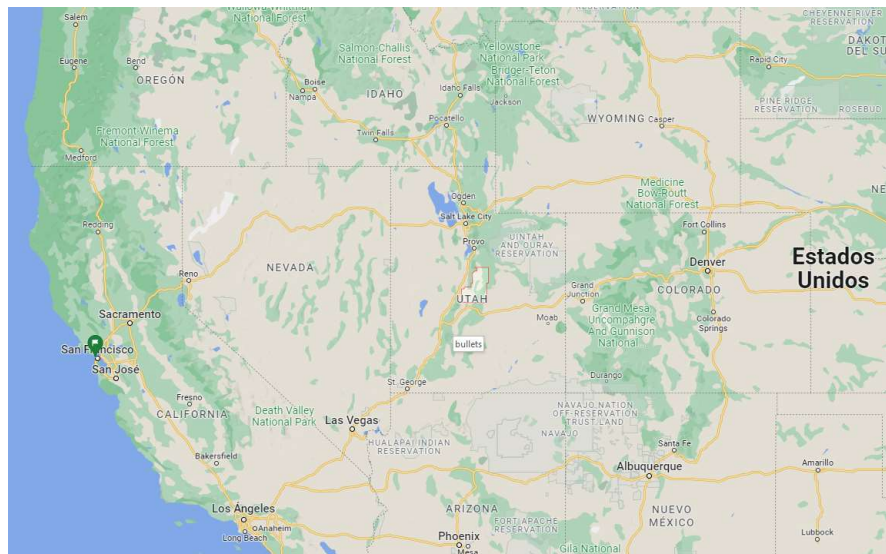
“Medir” consome muito tempo e dinheiro – estímulos precisam ser desenhados para que se vença esta barreira

<https://www.medscape.com/courses/section/903497>

Intermountain Health Care

1995

Projeto para diminuir os índices de pneumonia comunitária no Condado de Sanpete



Intermountain Health Care

1995

Projeto para diminuir os índices de pneumonia comunitária no Condado de Sanpete

↓ taxa de complicações ao tratamento

↑ sobrevida global dos pacientes



Intermountain Health Care

1995

Projeto para diminuir os índices de pneumonia comunitária no Condado de Sanpete

↓ taxa de complicações ao tratamento

↑ sobrevida global dos pacientes



Intermountain Health Care



1995

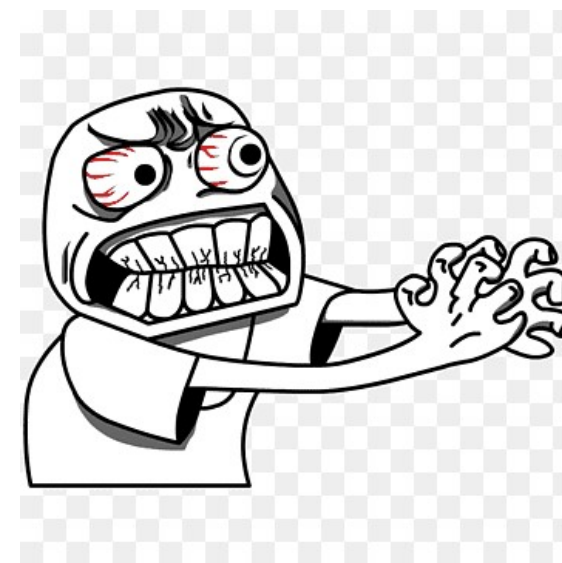
Projeto para diminuir os índices de pneumonia comunitária no Condado de Sanpete

↓ taxa de complicações ao tratamento

↑ sobrevida global dos pacientes



Diminuição dos ganhos do hospital de 17,5%

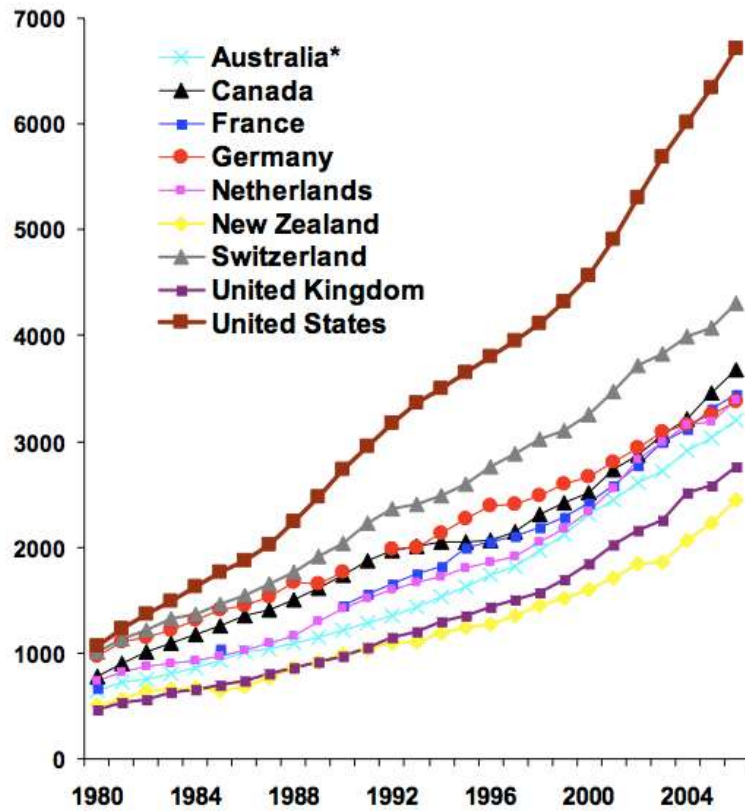


Fase 1: segunda metade do século XX

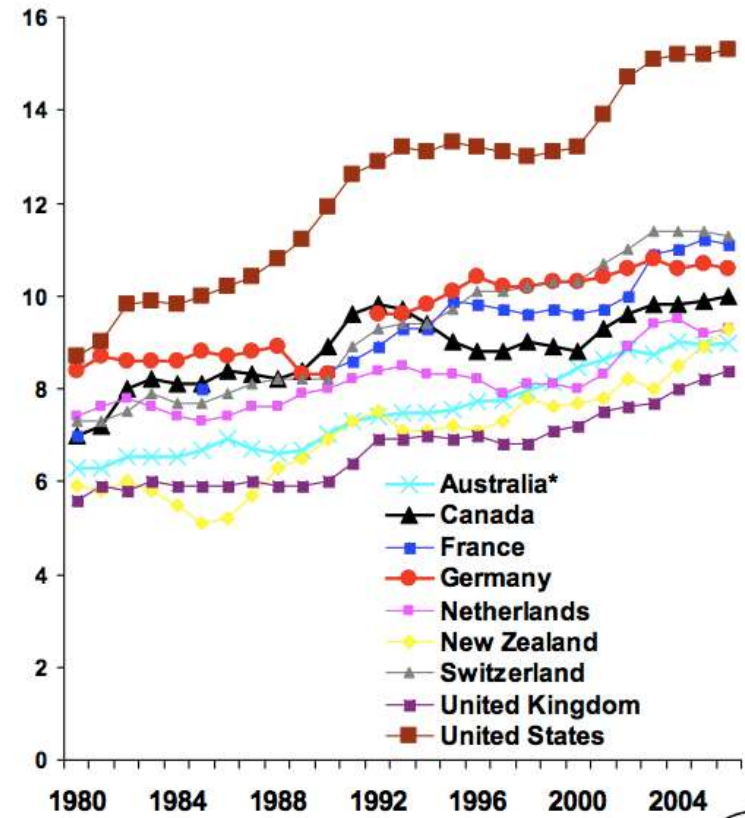
Fase 2: a partir do final da década de 90

Fase 3: fase da insuficiência gerencial

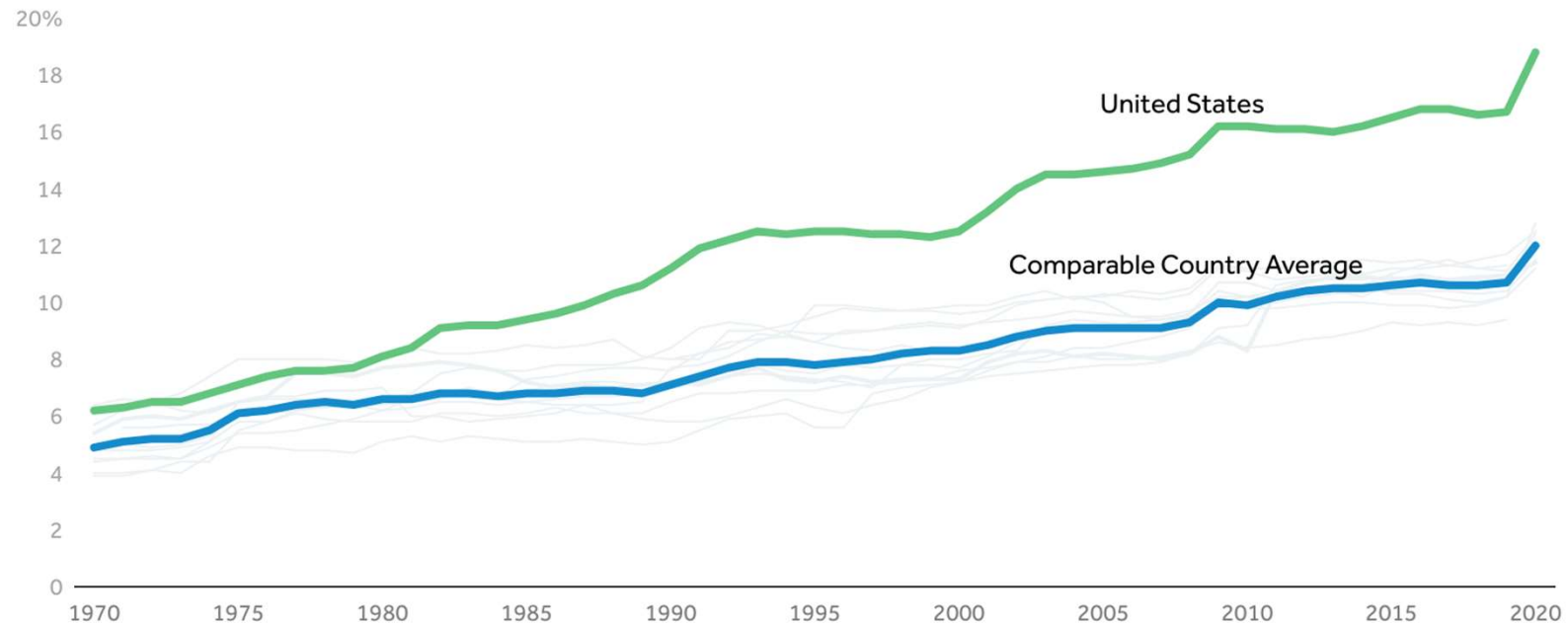
Average spending on health per capita (\$US PPP)



Total expenditures on health as percent of GDP



Health consumption expenditures as percent of GDP, 1970-2020



Notes: U.S. values obtained from National Health Expenditure data. Health consumption does not include investments in structures, equipment, or research. 2020 data not yet available for Australia, Belgium, Canada, Japan or Switzerland. Provisional 2020 data for Austria, Germany, Netherlands, Sweden and the United Kingdom. Provisional 2019 data for Canada. Data for Australia and Japan in 2019 and France in 2020 is estimated. France data before 1990 is not shown.

Source: KFF analysis of OECD and National Health Expenditure (NHE) data

Peterson-KFF
Health System Tracker



coauthor of *WITTGENSTEIN'S POKER*

David Edmonds

WOULD YOU KILL THE FAT MAN?



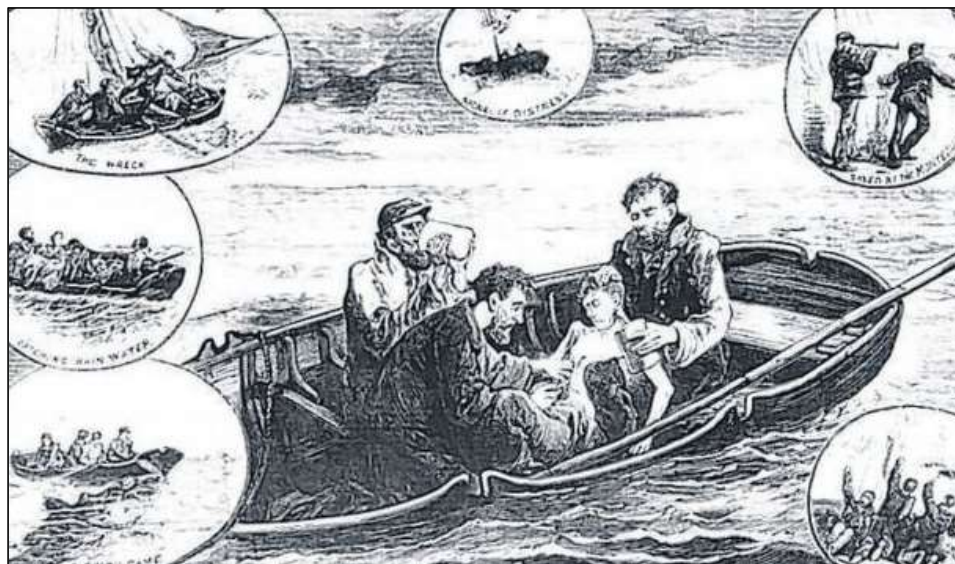
The Trolley Problem
and What Your Answer Tells Us
about Right and Wrong

"A tour de force."—Kwame Anthony Appiah, author of *The Honor Code*

Utilitarismo

Jeremy Bentham

Stuart Mill

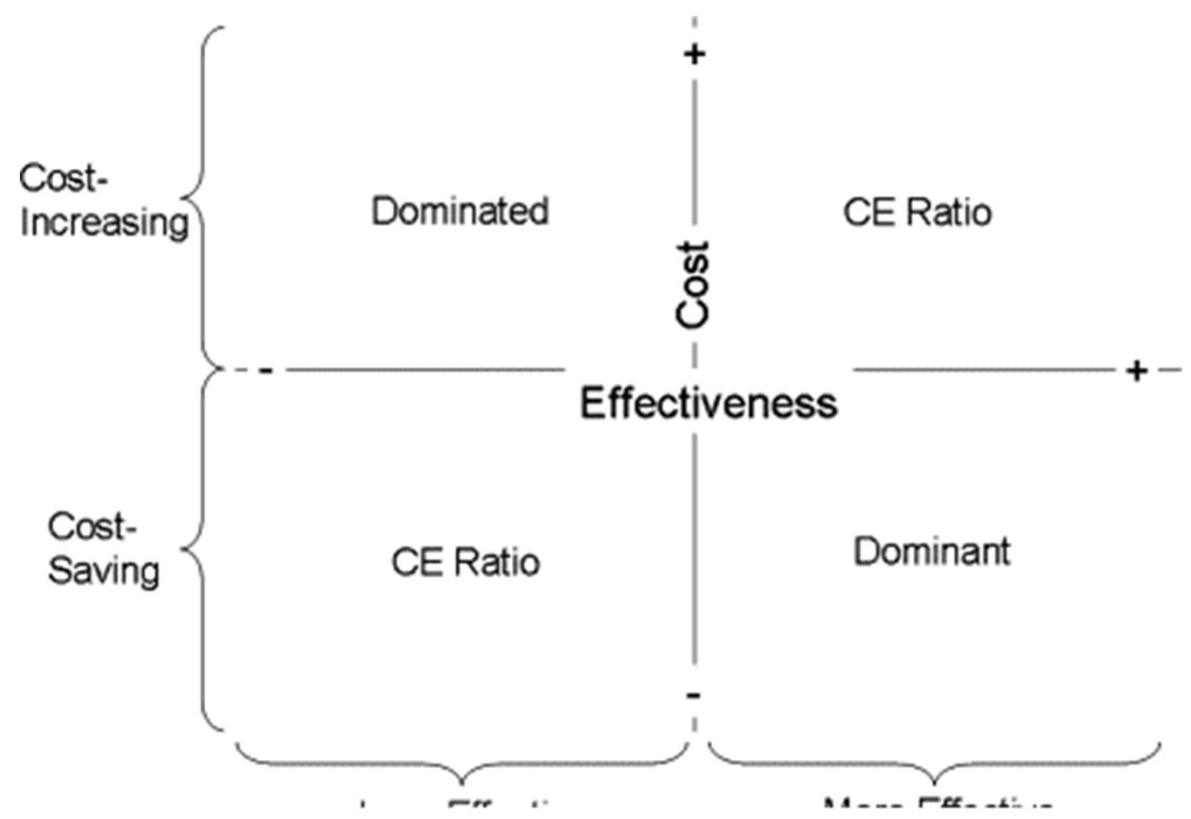


ANÁLISIS ECONÓMICAS DE LAS NUEVAS TECNOLOGÍAS

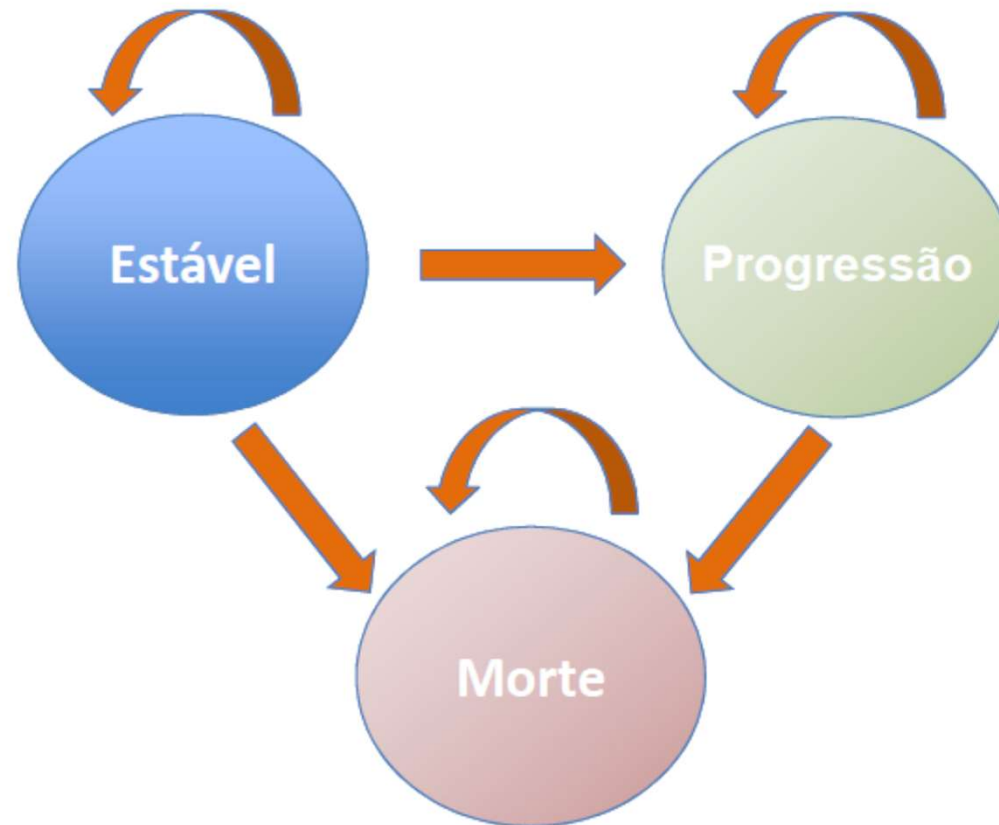
ANÁLISIS ECONÓMICAS DE LAS NUEVAS TECNOLOGÍAS

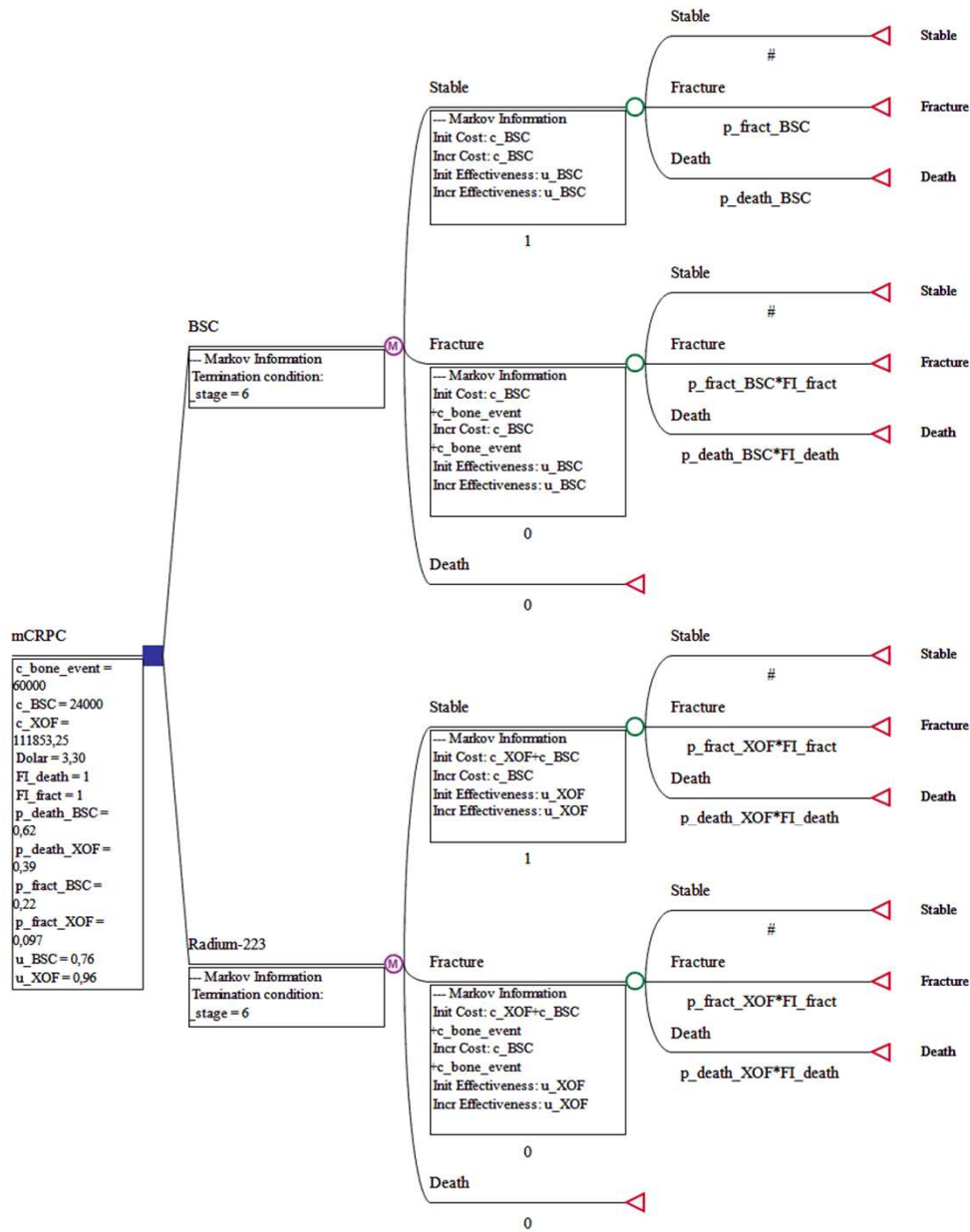
$$\text{ICER} = \frac{\text{COSTE}}{\text{EFECTIVIDAD}}$$
$$\text{ICER} = \frac{\text{COSTE A} - \text{COSTE B}}{\text{EFECT A} - \text{EFECT B}}$$

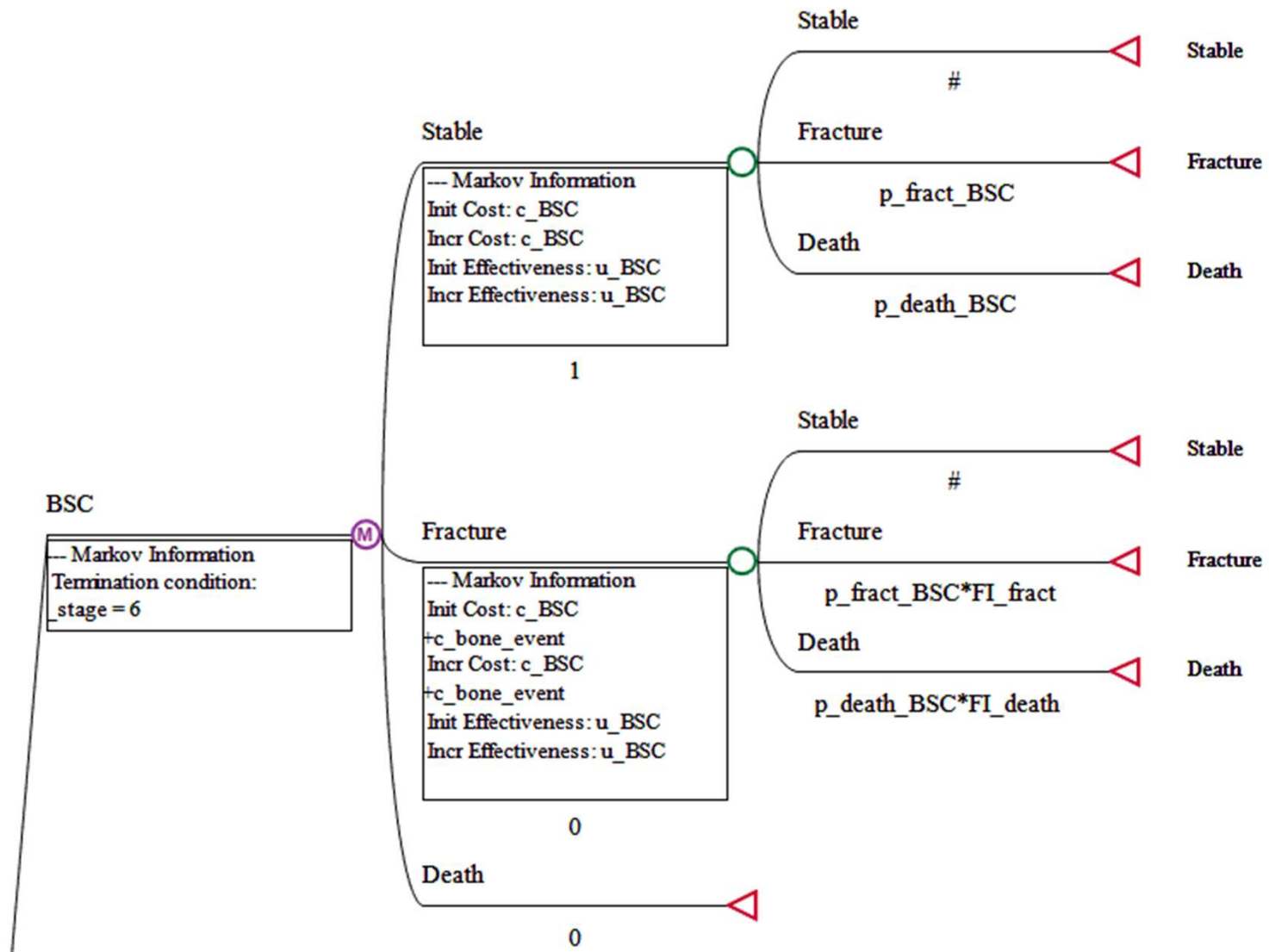
ANÁLISIS ECONÓMICAS DE LAS NUEVAS TECNOLOGÍAS



Modelo de Markov







mCRPC

```

c_bone_event =
60000
c_BSC = 24000
c_XOF =
111853,25
Dolar = 3,30
FI_death = 1
FI_fract = 1
p_death_BSC =
0,62
p_death_XOF =
0,39
p_fract_BSC =
0,22
p_fract_XOF =
0,097
u_BSC = 0,76
u_XOF = 0,96
    
```

Radium-223

```

--- Markov Information
Termination condition:
_stage = 6
    
```

Stable

```

--- Markov Information
Init Cost: c_XOF+c_BSC
Incr Cost: c_BSC
Init Effectiveness: u_XOF
Incr Effectiveness: u_XOF
    
```

1

Fracture

```

--- Markov Information
Init Cost: c_XOF+c_BSC
+c_bone_event
Incr Cost: c_BSC
+c_bone_event
Init Effectiveness: u_XOF
Incr Effectiveness: u_XOF
    
```

0

Death

0

Stable

#

Fracture

$p_fract_XOF * FI_fract$

Death

$p_death_XOF * FI_death$

Stable

Fracture

Death

Stable

#

Fracture

$p_fract_XOF * FI_fract$

Death

$p_death_XOF * FI_death$

Stable

Fracture

Death

3	<u>Name</u>	<u>Root Definition</u>	<u>Low</u>	<u>High</u>	<u>Original Name</u>	<u>Changed</u>
4	c_bone_event	60000	20000	100000	c_bone_event	0
5	c_BSC	24000	12000	36000	c_BSC	0
6	c_XOF	111853,25	89482,6	134223,9	c_XOF	0
7	Dolar	3,30	3	4,5	Dolar	0
8	FI_death	1	1	1,2	FI_death	0
9	FI_fract	1	1	1,2	FI_fract	0
10	p_death_BSC	0,62	0,52	0,72	p_death_BSC	0
11	p_death_XOF	0,39	0,29	0,49	p_death_XOF	0
12	p_fract_BSC	0,22	0,12	0,32	p_fract_BSC	0
13	p_fract_XOF	0,097	0,009	0,01	p_fract_XOF	0
14	u_BSC	0,76	0,6	0,8	u_BSC	0
15	u_XOF	0,96	0,8	0,98	u_XOF	0

Table 2: Survival results from the phase III ALSYMPCA study

	Xofigo	Placebo
Interim analysis	N = 541	N = 268
Number (%) of deaths	191 (35.3%)	123 (45.9%)
Median overall survival (months) (95% CI)	14.0 (12.1 – 15.8)	11.2 (9.0 – 13.2)
Hazard ratio ^b (95% CI)	0.695 (0.552 – 0.875)	
p-value ^a (2-sided)	0.00185	
Updated analysis	N = 614	N = 307
Number (%) of deaths	333 (54.2%)	195 (63.5%)
Median overall survival (months) (95% CI)	14.9 (13.9 – 16.1)	11.3 (10.4 – 12.8)
Hazard ratio ^b (95% CI)	0.695 (0.581 – 0.832)	

CI = confidence interval

^a The Phase 3 study ALSYMPCA was stopped for efficacy after the interim analysis. As the updated analysis is provided for descriptive purposes only, a p-value is not provided.

^b Hazard ratio (Xofigo over placebo) < 1 favours Xofigo.

Table 3: Secondary efficacy endpoints from the phase III ALSYMPCA study (interim analysis)

		Incidence		Time-to-event analysis (95% CI)			
		[no. (%) of patients]		[median no. of months]		Hazard ratio	p-value
		Xofigo N = 541	Placebo N = 268	Xofigo N = 541	Placebo N = 268	< 1 favours Xofigo	
Symptomatic skeletal event (SSE)	SSE composite endpoint ^a	132 (24.4%)	82 (30.6%)	13.5 (12.2–19.6)	8.4 (7.2–NE) ^b	0.610 (0.461 – 0.807)	0.00046
	External beam radiation for pain relief	122 (22.6%)	72 (26.9%)	17.0 (12.9–NE)	10.8 (7.9–NE)	0.649 (0.483 – 0.871)	0.00375
	Spinal cord compression	17 (3.1%)	16 (6.0%)	NE	NE	0.443 (0.223 – 0.877)	0.01647
	Surgical intervention	9 (1.7%)	5 (1.9%)	NE	NE	0.801 (0.267 – 2.398)	0.69041
	Bone fractures	20 (3.7%)	18 (6.7%)	NE	NE	0.450 (0.236 – 0.856)	0.01255
Total ALP progression ^c		79 (14.6%)	116 (43.3%)	NE	3.7 (3.5 – 4.1)	0.162 (0.120 – 0.220)	< 0.00001
PSA progression ^d		288 (53.2%)	141 (52.6%)	3.6 (3.5 – 3.7)	3.4 (3.3 – 3.5)	0.671 (0.546 – 0.826)	0.00015

Radium-223 for the treatment of castration-resistant prostate cancer

This article was published in the following Dove Press journal:

OncoTargets and Therapy

18 May 2015

[Number of times this article has been viewed](#)

most common cause being death. The median duration of follow-up was 10.4 months for the radium-223 group and 7.6 months for the placebo group. Only 20 patients (16 in the

A Review and Meta-Analysis of Prostate Cancer Utilities

Karen E. Bremner, BSc, Christopher A. K. Y. Chong, MD, George Tomlinson, PhD,
Shabbir M. H. Alibhai, MD, MSc, Murray D. Krahn, MD, MSc

Background. Health-related quality of life is a key issue in prostate cancer (PC) management. The authors summarized published utilities for common health-related quality of life outcomes of PC and determined how methodological factors affect them. **Methods.** In their systematic review, the authors identified 23 articles in English, providing 173 unique utilities for PC health states, each obtained from 2 to 422 respondents. Data were pooled using linear mixed-effects modeling with utilities clustered within the study, weighted by the number of respondents divided by the variance of each utility. **Results.** In the base model, the estimated utility of the reference case (scenario of a metastatic PC patient with severe sexual symptoms, rated by non-PC patients using time tradeoff) was 0.76. Disease stage, symptom type and severity, source of utility, and scaling method were associated with utility differences of 0.10 to 0.32 ($P < 0.05$). Utilities from

PC patients rating their own health were 0.14 higher than those from the reference case, but utilities from PC patients rating scenarios were lowest. Time tradeoff yielded the highest utilities. Computer administration yielded lower utilities than personal interview ($P = 0.02$). Neither the scale's high anchor nor study purpose had significant effects on utilities. **Conclusions.** This study provides pooled utility estimates for common PC health states and describes how clinical and methodological factors can significantly affect these values. When possible, utility estimates for a modeling application should be derived similarly. Formal data synthesis methods might be useful to researchers integrating utility data from heterogeneous sources. Further exploration of these methods for this purpose is warranted. **Key words:** prostate cancer; utility assessment; preferences; quality of life; meta-analysis. (*Med Decis Making* 2007;27:288–298)

Health Economics and Radium-223 (Xofigo®) in the Treatment of Metastatic Castration-Resistant Prostate Cancer (mCRPC): A Case History and a Systematic Review of the Literature

Jan Norum^{1,2,3}, Erik R. Traasdahl¹, Arpad Totth^{3,4}, Carsten Nieder^{2,5} & Jan Abel Olsen⁶

¹ Department of Radiology, University Hospital of North Norway, Tromsø, Norway

² Department of Clinical Medicine, Faculty of Health Sciences, UiT-The Arctic University of Norway, Troms, Norway

³ Northern Norway Regional Health Authority Trust, Bodø, Norway

⁴ Csolnoky Ferenc Hospital, Veszprém, H-8200 Veszprém, Hungary

⁵ Department of Oncology and Palliative Medicine, Nordland hospital, Bodø, Norway

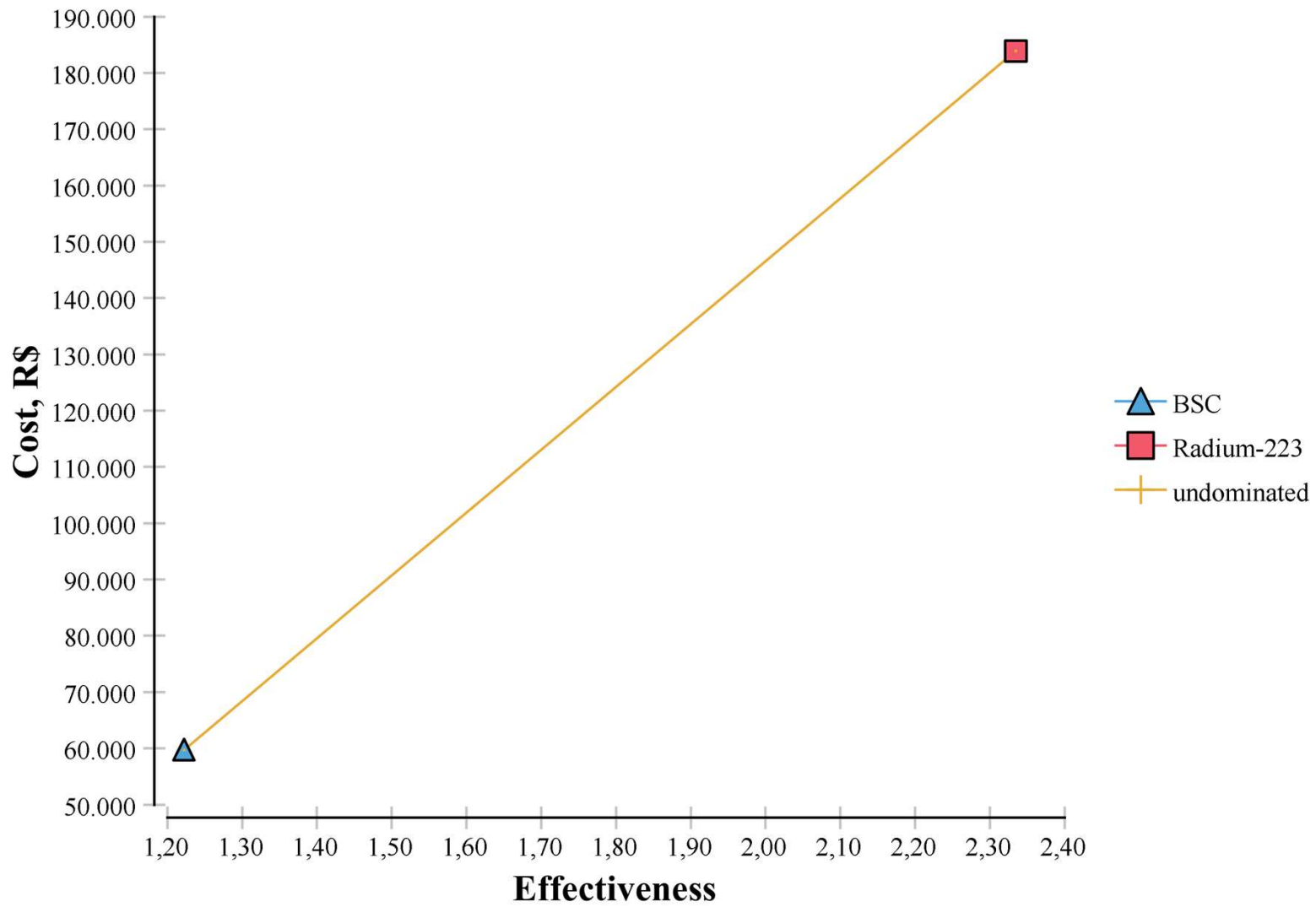
⁶ Department of Community Medicine, Faculty of Health Sciences, UiT - The Arctic University of Norway, Norway

Correspondence: Jan Norum, Northern Norway Regional Health Authority Trust, N-8038 Bodø, Norway. Tel: 47-755-12-900. E-mail: jan.norum@uit.no

radium-223 could be considered a cost-effective use of National Health Services' (NHS') resources. Based on the comparison with best supportive care (BSC), the NICE-committee concluded radium-223 could not be considered a cost-effective use of NHS resources in England and Wales. In Sweden, the National Board for Health and Welfare (2014) did a health economic analysis as a supplement to the national Swedish guidelines. They concluded radium-223 offered an incremental gain of 0.20 QALYs compared to BSC. The cost per QALY was SEK 905,000 (€94,000). A sensitivity analysis revealed a range between SEK 492,000–2,203,000 (€51,000-229,000). It was concluded that the cost per QALY was very high.

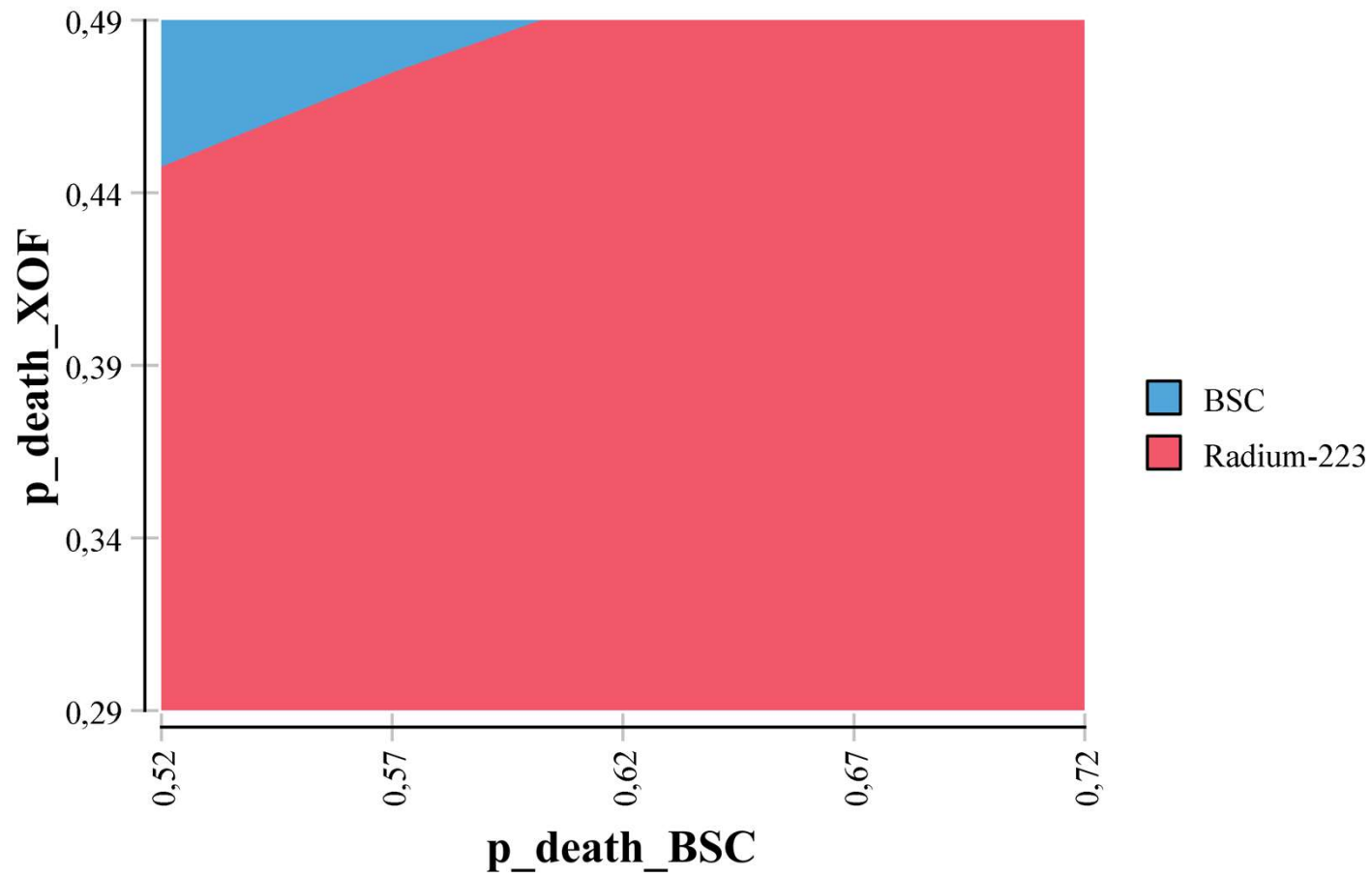
Based on these reports, the answer to our second question was that radium-223 has not been documented cost-effective.

Cost-Effectiveness Analysis

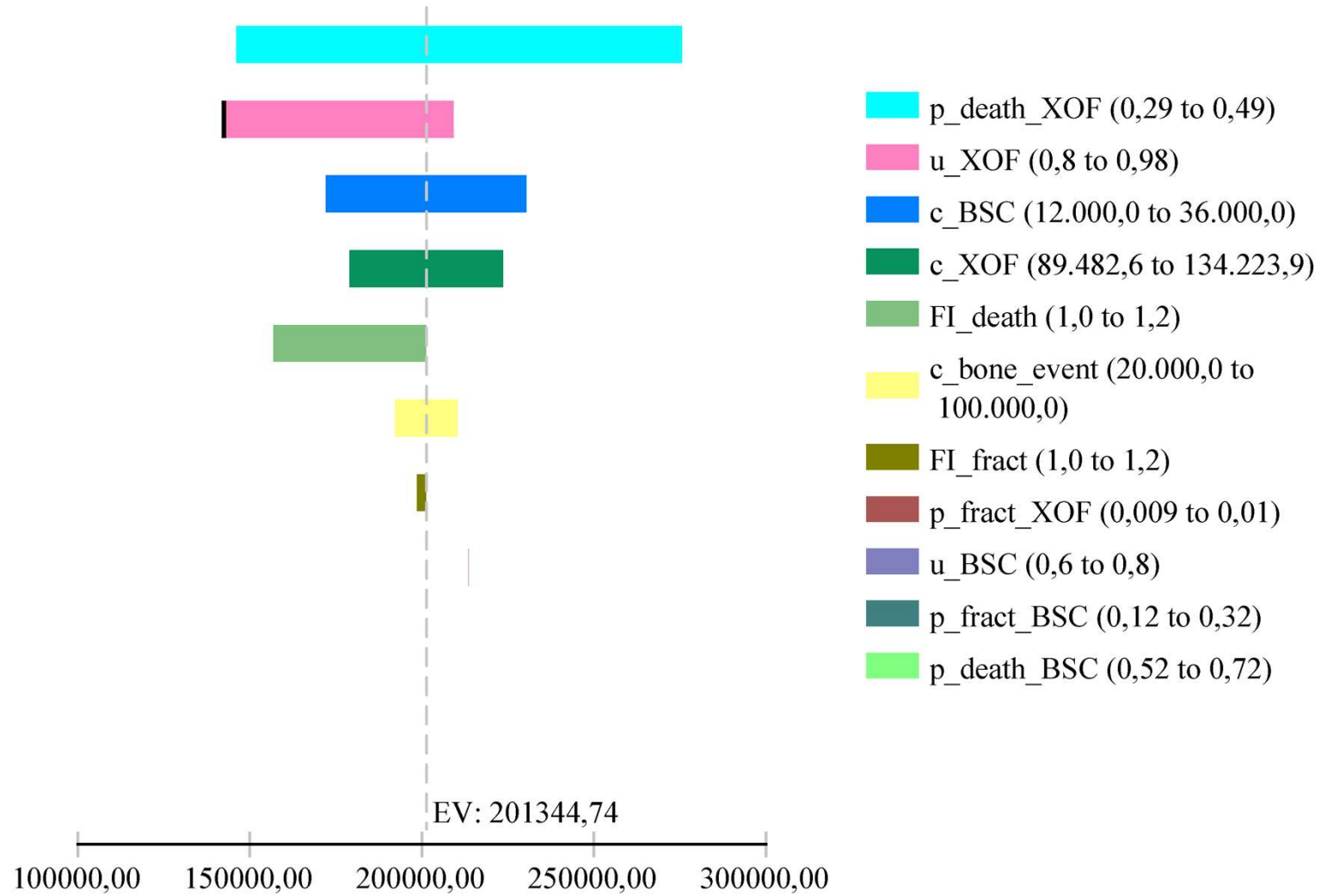


	A	B	C	D	E	F	G	H
1								
2	Strategy	Cost	Incr Cost	Eff	Incr Eff	Incr C/E	NMB	C/E
3								
4	Excluding dominated							
5	BSC	59715		1,22			-132693	48861,79
6	Radium-22	183884	124169	2,33	1,11	111602,3	-613201	78760,61
7								
8	All							
9	BSC	59715	0	1,22	0	0	-132693	48861,79
10	Radium-22	183884	124169	2,33	1,11	111602,3	-613201	78760,61
11								
12	All referencing common baseline							
13	BSC	59715		1,22			-132693	48861,79
14	Radium-22	183884	124169	2,33	1,11	111602,3	-613201	78760,61
15								
16	All by Increasing effectiveness							
17	BSC	59715		1,22			-132693	48861,79
18	Radium-22	183884		2,33			-613201	78760,61

Sensitivity Analysis on p_death_BSC and p_death_XOF (Net Benefit, WTP=165000.0)



Tornado Analysis (Net Benefits)



17 4 REC

VOTO-VISTA COLETIVA
ERESP Nº 1.889.704/SP
ADVOGADOS: DR. MÁRCIO VIEIRA SOUTO COSTA
FERREIRA E DRA. ANA TEREZA BASILIO
EMBARGANTE UNIMED CAMPINAS COOPERATIVA
DE TRABALHO MEDICO
ADVOGADAS: DRA. RAÍSSA MOREIRA SOARES E
DRA. CAROLINE SALERNO
EMBARGADO R D F
RELATOR: MINISTRO LUIS FELIPE SALOMÃO
VOTO-VISTA: MINISTRO VILLAS BOAS CUEVA

Joselha - Apoio

Ana Elisa Kirjner - S

Ministra Nancy Andri

Ministro Moura Ribeiro

Ministro Raul Araújo

Ministro Buzzi

Ministro Luis Felipe

Ministro Antonio Carlos

Ministro Paulo Sanse

Ministra Isabel Gallott

Ministro Bellizze

Min. Villas Boas Cue

SPGR - Dr. Sady

Dr Marcio Costa RES

Dra. Ana Basilio



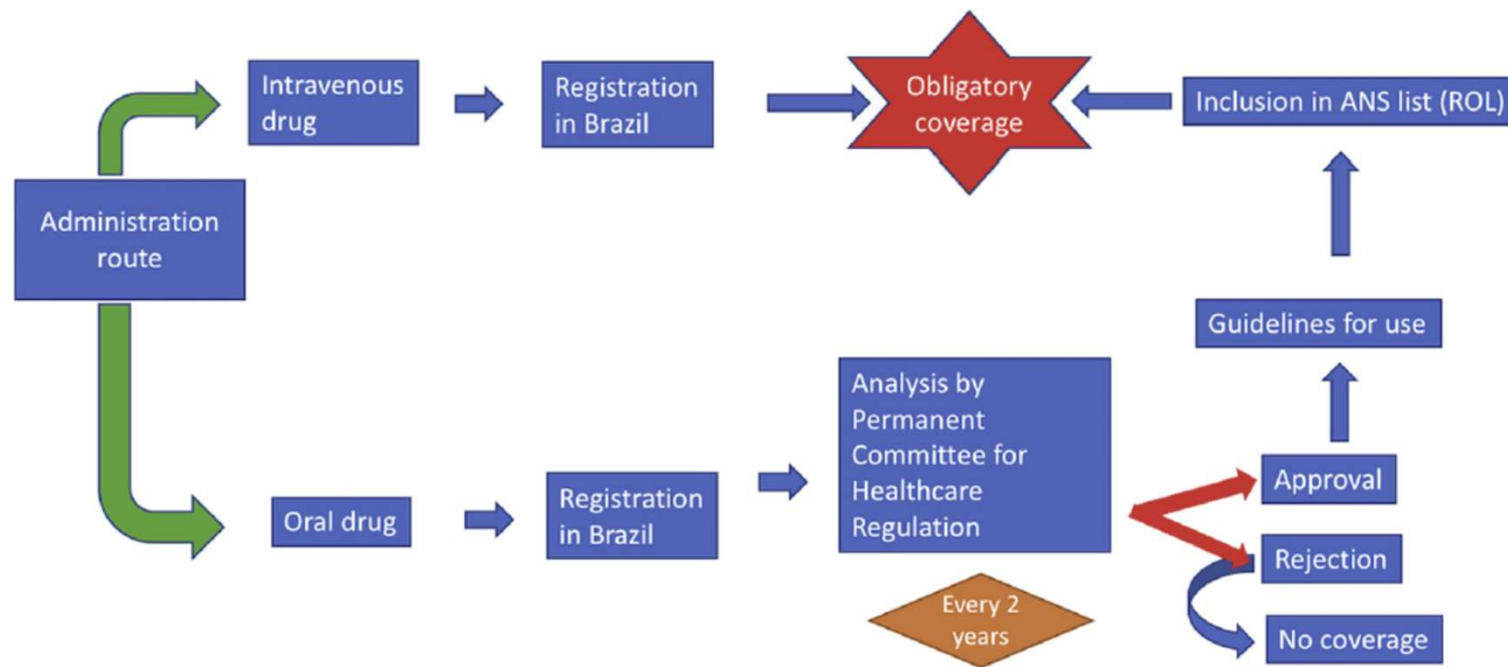


Fig. 1 – Process of incorporation of oncological medications in Brazil in the private sector. ROL: list of procedures of mandatory reimbursement”, published every two years by the Brazilian National Health Agency. ANS indicates Agência Nacional de Saúde.

Ética na Alocação de Recursos

Tem a Saúde (e portanto, o acesso aos cuidados com a saúde), importância moral especial?

Quando o acesso desigual à saúde é injusto? (determinantes sociais de saúde)

Como podemos atingir o acesso justo à saúde, em um universo com recursos finitos?

Liberdades básicas asseguradas
Igualdade de oportunidades
Desigualdades aceitáveis



HARVARD
UNIVERSITY



Daniels N. Just Health – Meeting Health Needs Fairly. Cambridge Ed.

Legitimidade:

O agente público, financiador ou regulador, tem legitimidade para tomar decisões

Estabelecer parâmetros

Limite de gasto visando o melhor aproveitamento do recurso para a população

Transparência

Não limita a liberdade do médico, e assume para si o ônus da negativa

Sempre haverá perdedores e ganhadores – a decisão deve ser pregressa.

O peso da decisão deve deitar-se sobre as costas do Estado (legítimo gestor dos recursos da Sociedade). E não do profissional de saúde, que deve informar e empoderar o seu paciente.

Daniels N. Just Health – Meeting Health Needs Fairly. Cambridge Ed.

Decisão

Pública e transparente

Condição de relevância

Condição de revisão e apelo



Obrigado!

Marcos Santos MD PhD

marcosrxt@gmail.com

