What Make Comparative Effectiveness Data Compelling?

Barbara J. McNeil, M.D. Ph.D
Harvard Medical School

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Question and Answer

- Q: What make data compelling, regardless of the source?

- A: Their strength, reliability and generalizability—no short cuts here

Outline

- Where have good data been used?
- Why aren't "good" data always used?
- What should our expectations be with Comparative Effectiveness Research (CER)?

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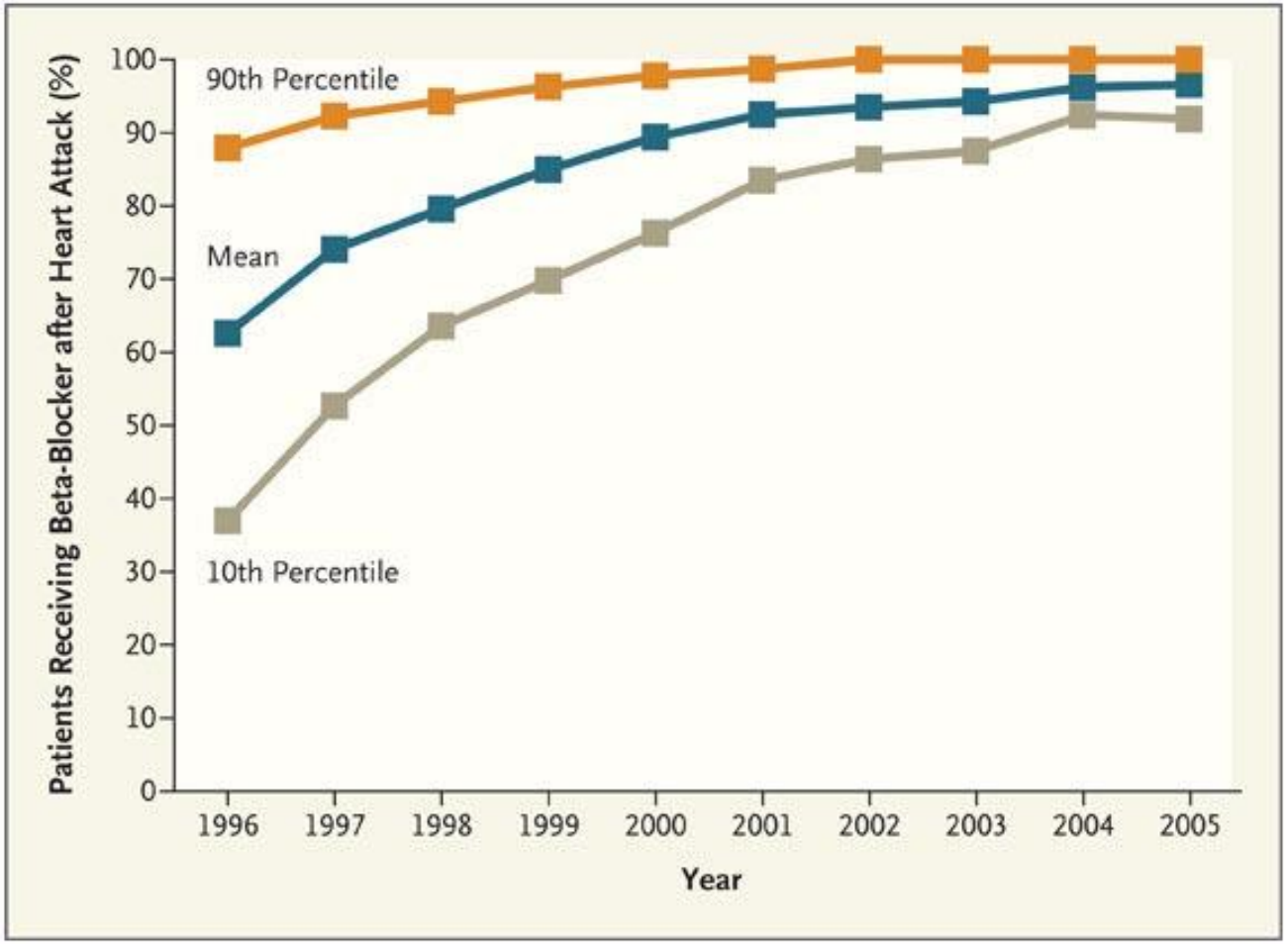
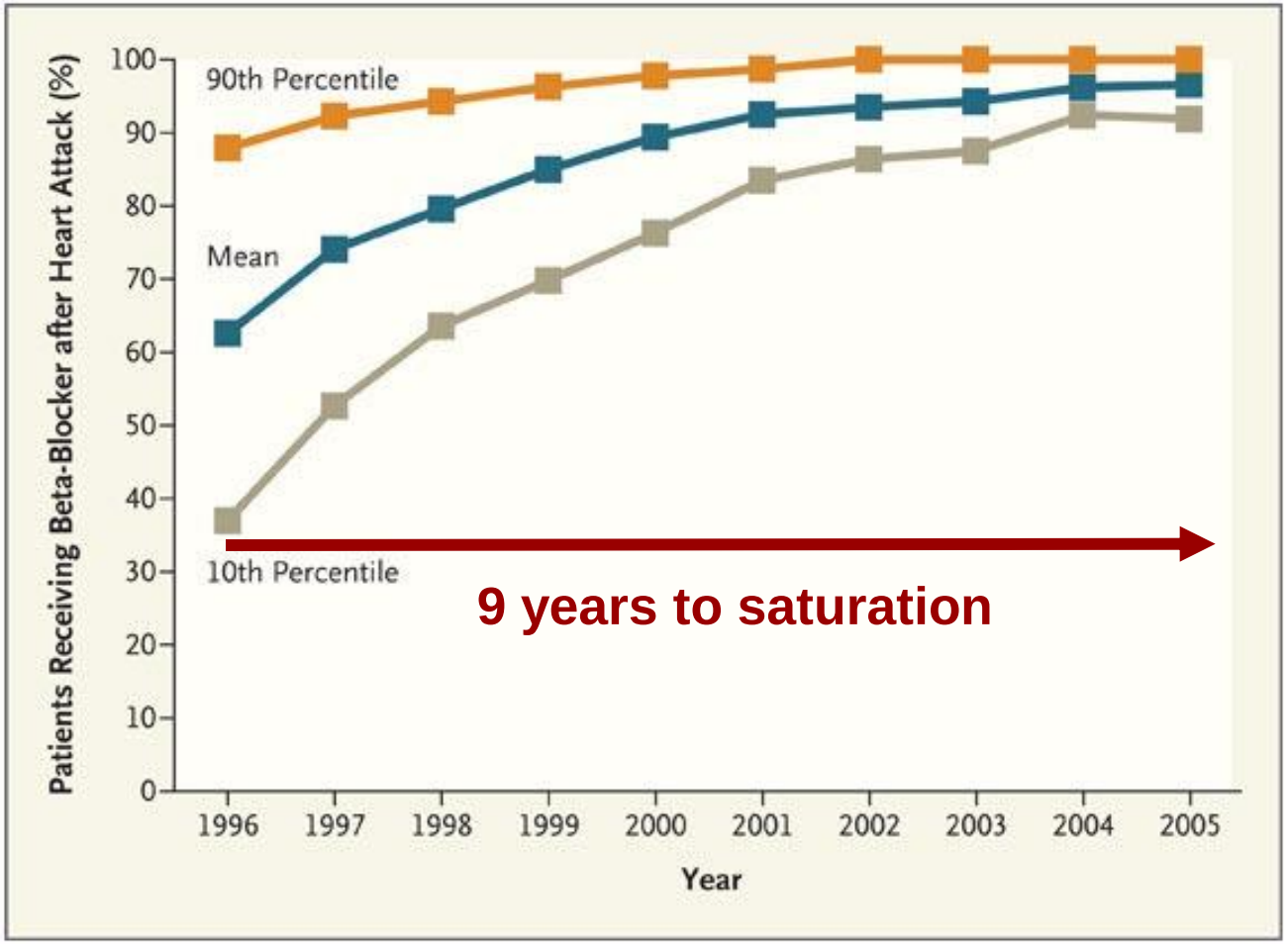
Use of Beta Blockers after AMI over Time



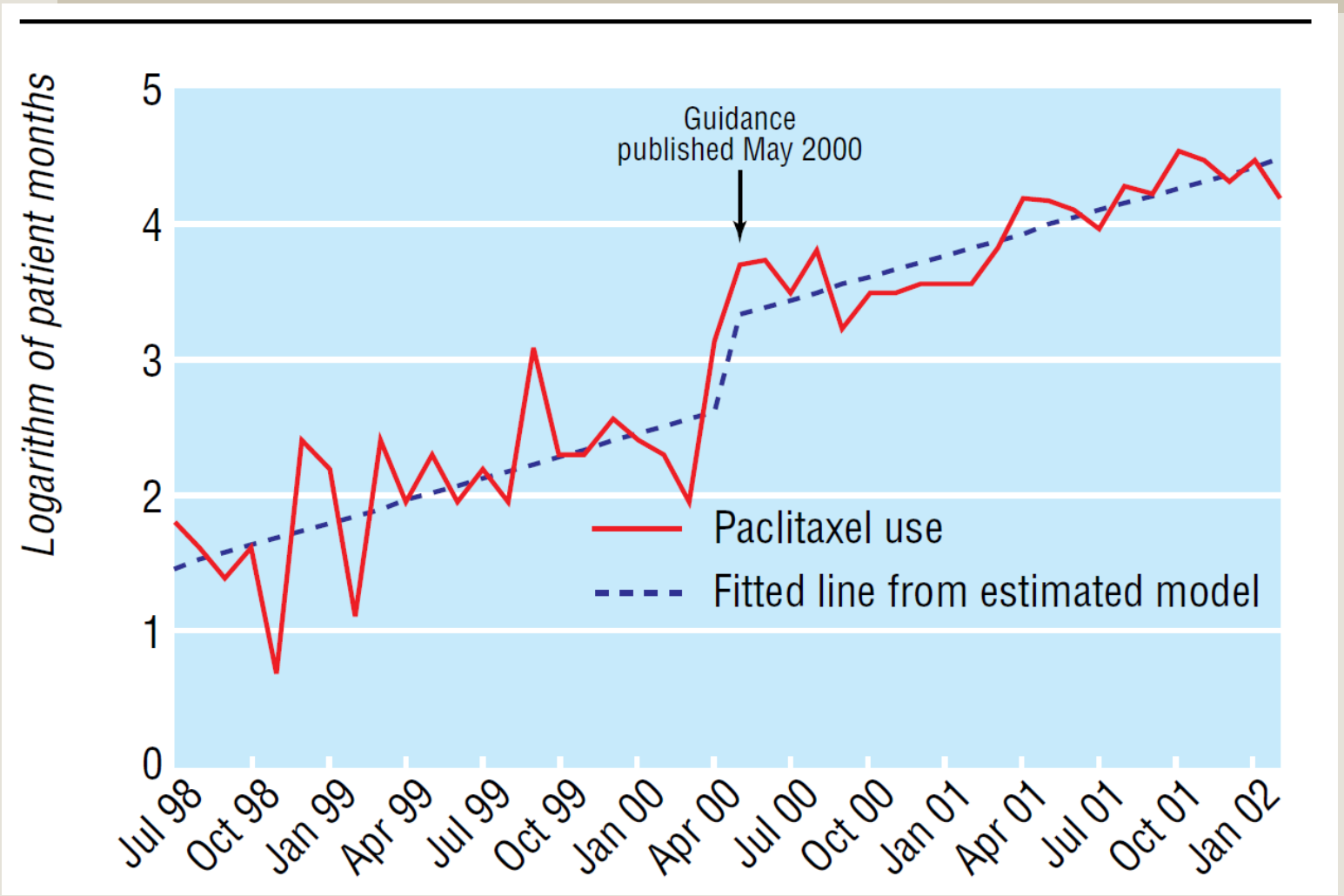
Lee T. N Engl J Med 2007;357:1175-1177

Delays: Use of Beta Blockers over Time



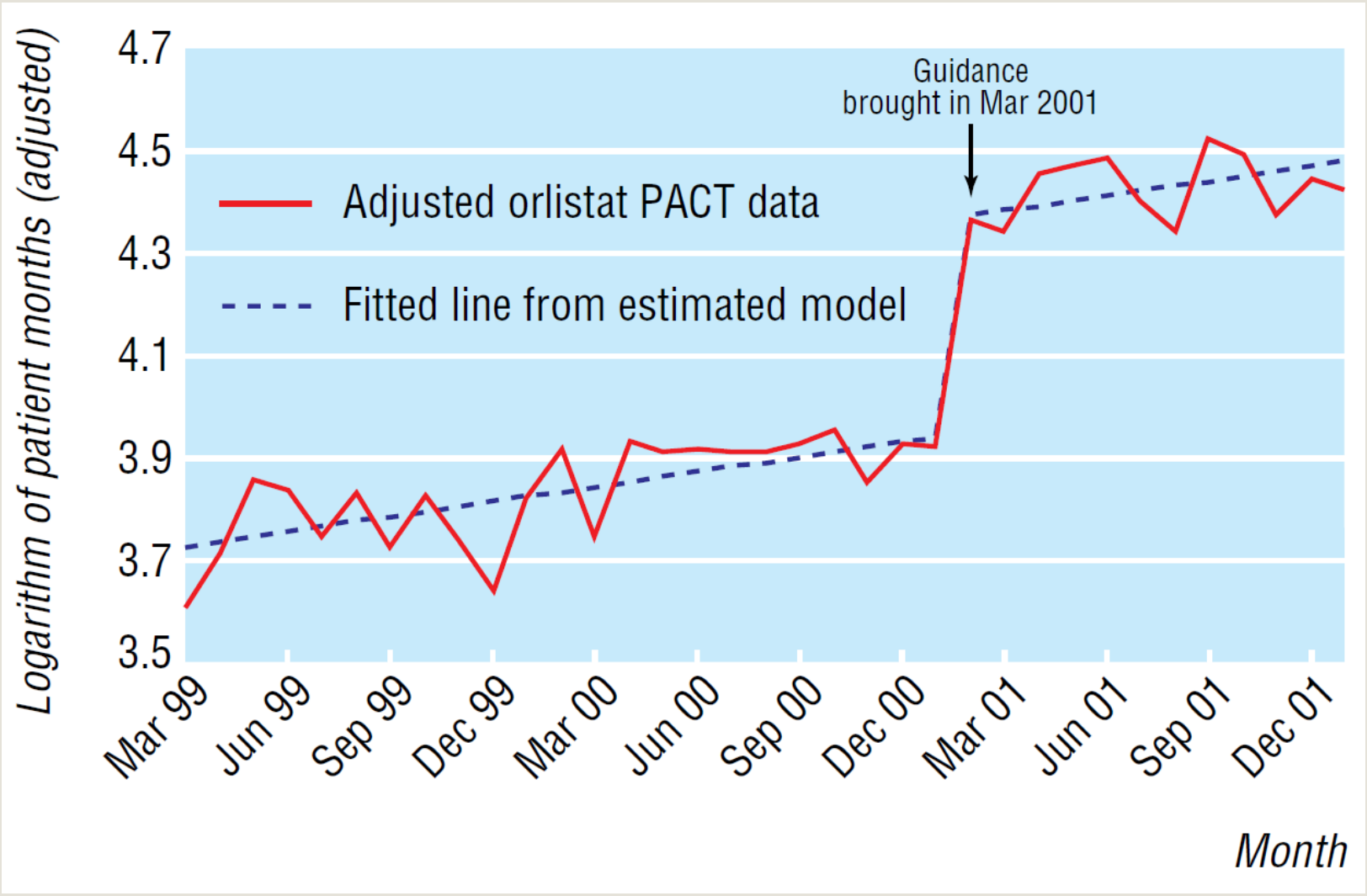
Lee, TH. NEJM 2007; 357: 1175

Taxanes in Breast Cancer Recommended by NICE

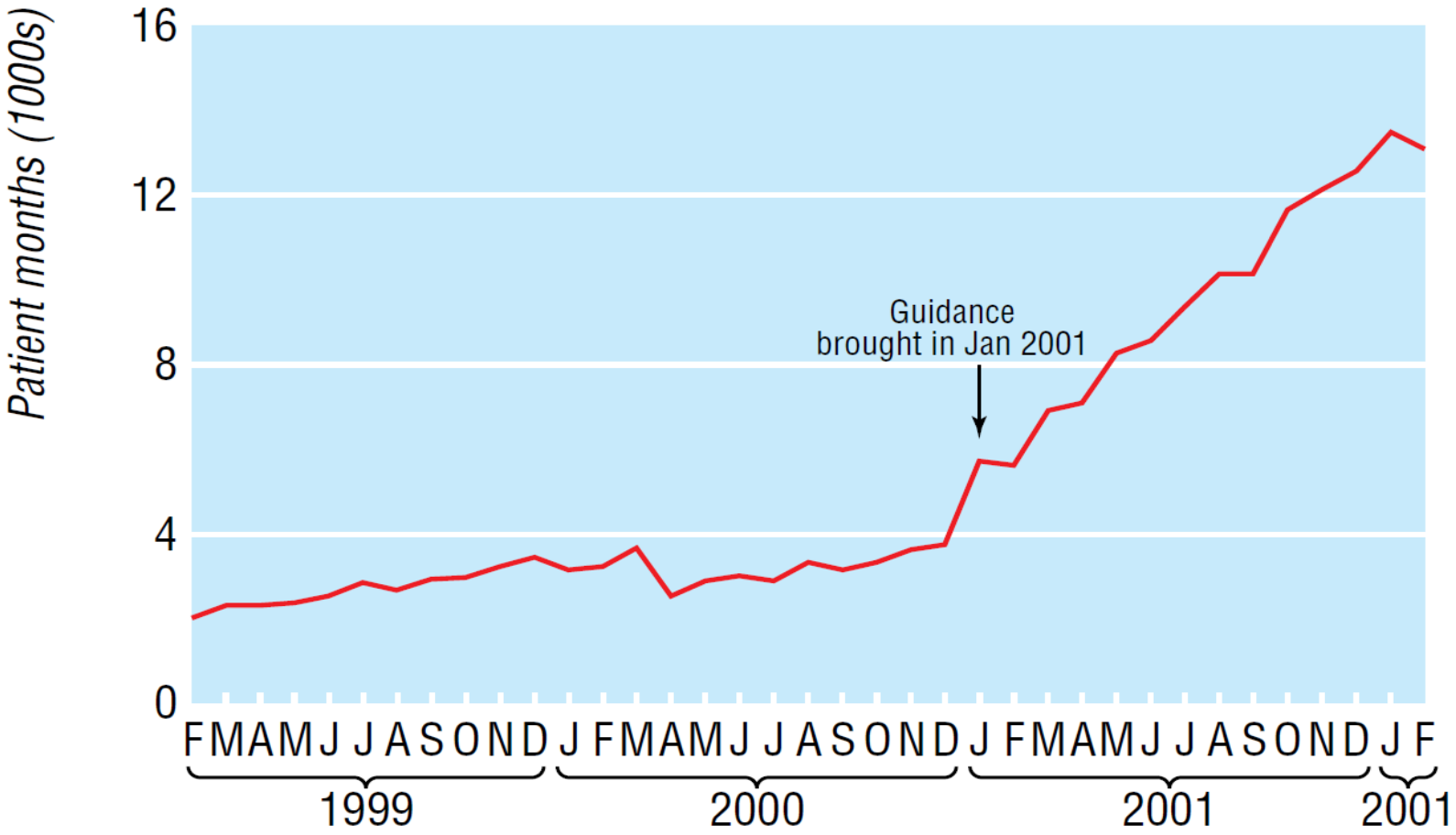


Sheldon TA et al. BMJ 329: Oct 30, 2004; http://www.nice.org.uk/guidance/index.jsp?action=article&o=32231; http://www.nice.org.uk/nicemedia/live/11778/43414/43414.pdf

Orlistat for Obesity: Initially Recommended by NICE



Drugs for Alzheimer's Disease: Recommended



http://guidance.nice.org.uk/TA19

Outline

- Where have good data been used?
- Why aren't "good" data always used?
  - Delays in going from info to guidelines
  - **Patient factors**: choice, trust in MD, cost
  - **Physician factors**: patient comorbidities, ignorance, reasoning patterns, biases/preferences
  - **Hospital factors**
- What should we do when data are questionable?

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Patient Factors: Choice

Patient Factors: Choice as Asssessed by Focus Groups

- "Everything *my doctor* prescribes is right"
- "Published guidelines are too inflexible for me"
  - "they cripple medical advantage"
- "More care is always better"
- "More costly care is better"

More data will not help here

Carman KL et al Health Affairs 2010; 29:1

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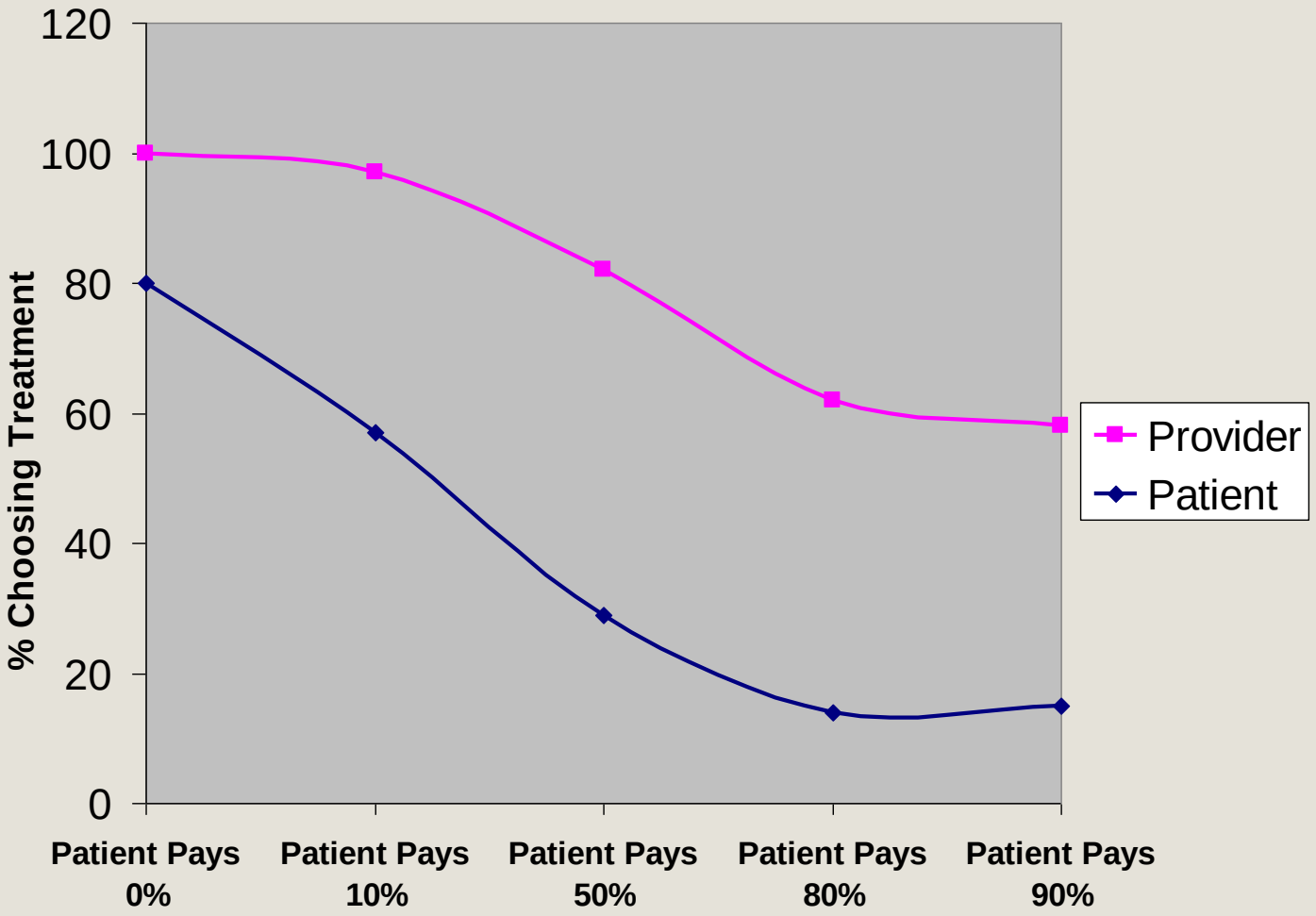
Patient Factors: Cost

Patient Factors: Money (Likelihood of Prescribing or Taking Medical Rx for Osteoporosis)



Data from Sinsky et al. JGIM 2007; 23: 164

Physician Factors

- Personality and style of reasoning
- Experience

MD Experiences in F/U of Patients with Acute Coronary Syndrome

- Observation: Physician styles of thinking and prescribing can "trump" data and guidelines
  - MDs who score high on "intuitive thinking" or "experiential" styles act independently
  - MDs with "rational" style follow guidelines
- Conclusion: Education of MDs with rational thinking must coincide with production and hopeful use of new data

Sladek RM et al. Implementation Science. 2008; 3:23

Hospital Factors

- Even with convincing data on AMI, some hospitals don't use data because (e.g., Beta blockers* or chemo agents**):
  - No goals for improvement*
  - No/little administrative support*
  - No strong MD leadership*
  - Little or poor feedback*
  - Limited experience (e.g., with side effects)**
  - Different preferences for near vs. long term effects**

***Bradley EH et al. JAMA 2001; 285: 2604-2611**
****Yet RWF et al. JCO 2007; 25: 3251-3258**

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Answer: muted unless…

Requirements for CER

- Unimpeachable evidence with attention to all possible misgivings of users regarding data
- Development of educational approaches for physicians when data are appropriate
- Help with development of infrastructure at point of care
- Belief that there is reasonable “value” for money

But, that’s not all…