



Clinician Perspective On Adaptive Designs

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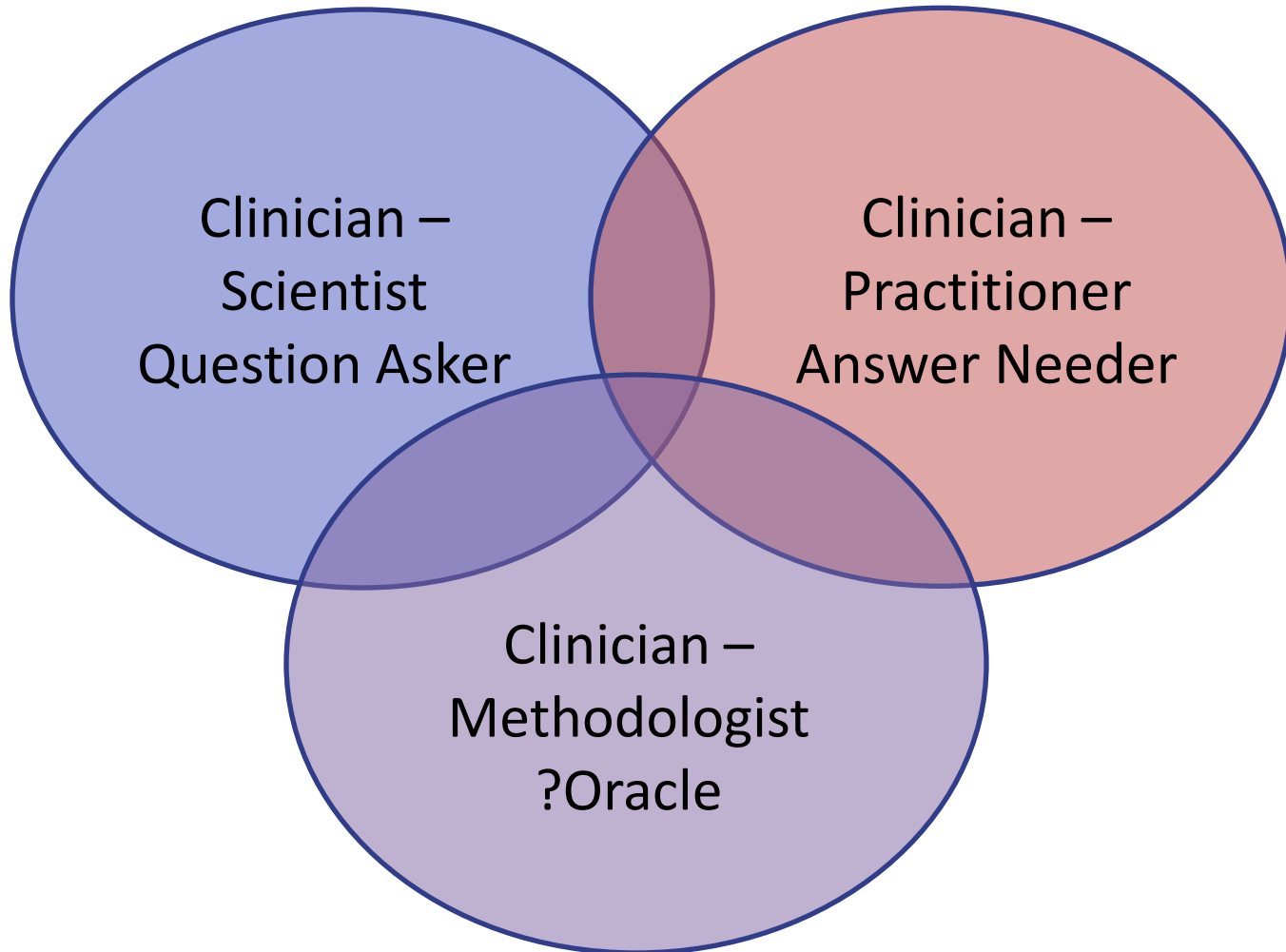
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Disclosures



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 - AHRQ
 - No financial conflict of interest as I have no ownership in or compensation from any companies or commercial interests
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Phenotype



Outline - insights



Speaking for the genus: “Clinician”

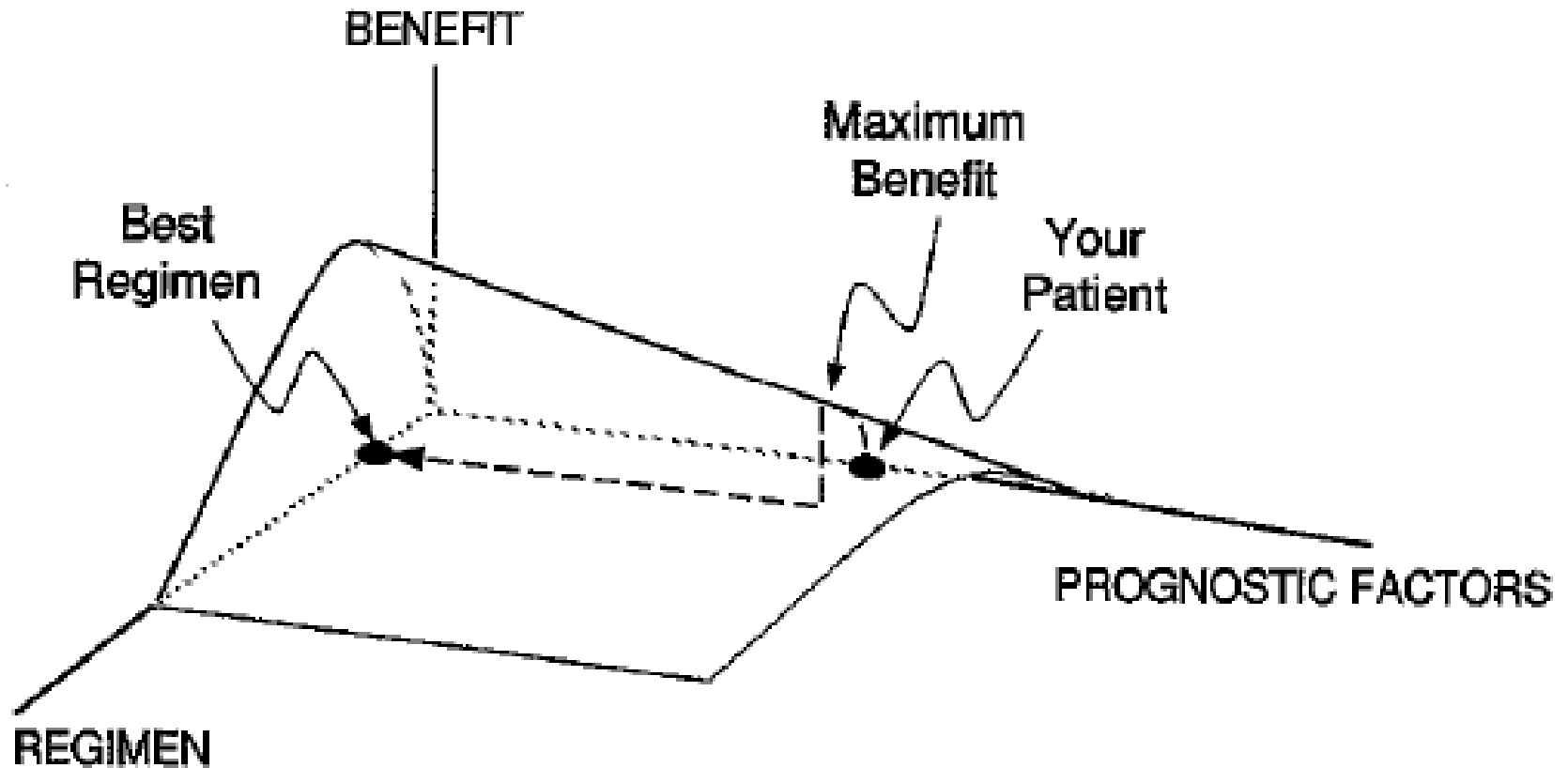
- We should think of clinical trials as diagnostic tests.
 - We inadequately acknowledge our own uncertainty.
 - We often aren’t collaborative enough with biostatisticians.
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Clinicians should think of

CLINICAL TRIALS AS DIAGNOSTIC TESTS

Therapeutic Response Surface



Preclinical Experiments





Clinicians should

ACKNOWLEDGE UNCERTAINTY

Why Clinical Trials (Often) Stink



Clinical Trials are Models with Tons of ~~Guesses~~ Assumptions

Dose from animal models is close

No heterogeneity of effect

Subgroups respond equally

Some subgroups excluded

Effect size to create “reasonable” sample size

“Noise” in outcomes can be understood and overcome

Duration of treatment practical

LESSON: Make many compromises to reduce number of parameters to make model “solvable”



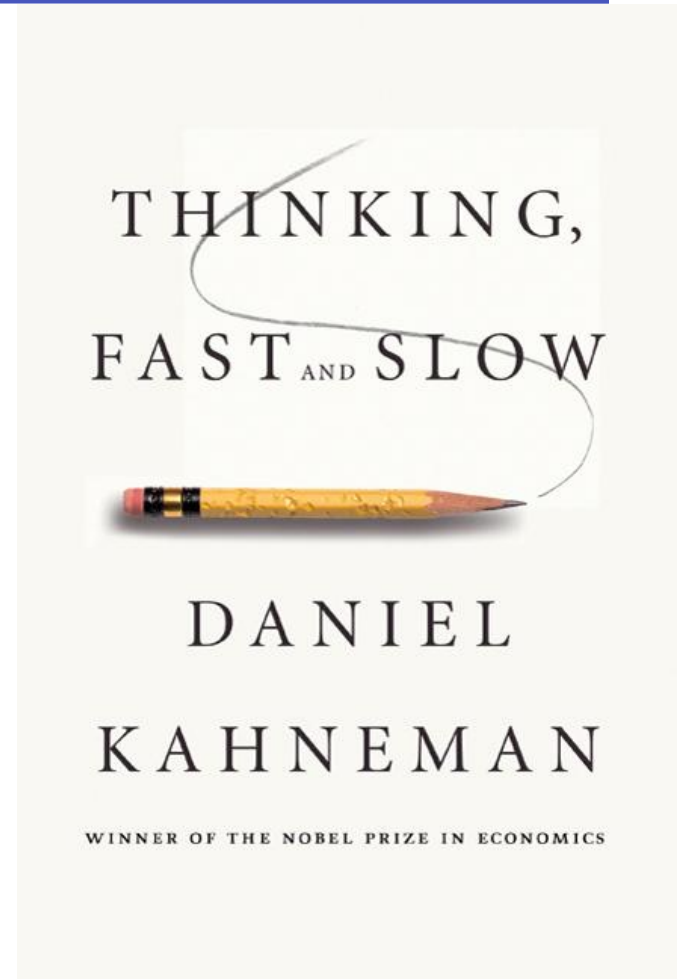
Clinicians and biostatisticians should

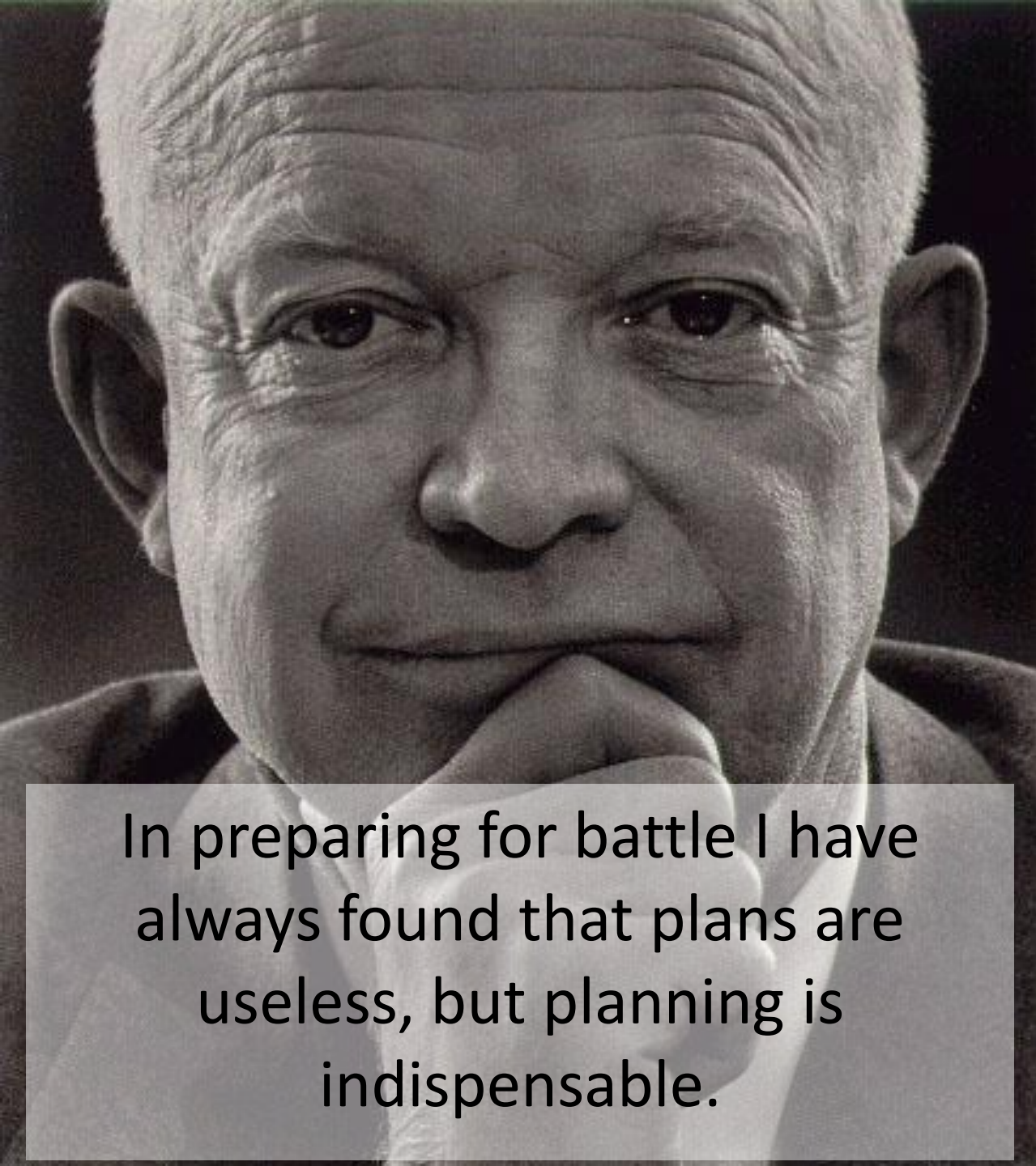
**SPEND MORE TIME WITH EACH
OTHER**

Areas to spend more time



- What is the question
- Pre-mortem
(anticipated regret)
- Simulate trials
- Attempt to balance
and “cost” flexibility
versus complexity



A black and white close-up photograph of an elderly man with a serious, thoughtful expression. He is wearing a dark suit jacket, a white shirt, and a patterned tie. His right hand is resting on his chin, with his fingers slightly curled. The background is dark and out of focus.

In preparing for battle I have
always found that plans are
useless, but planning is
indispensable.

Summary - insights



ADAPT-IT has taught me that clinicians of all species should...

- Think of clinical trials as diagnostic tests.
- Acknowledge our own uncertainty.
- Spend more time with biostatisticians.

“I have always considered it more desirable to kill computer-generated patients than real ones when calibrating design parameters.”

Peter Thall

Chance 2001;14:23-8

