Patient-Centered Decision-Making for Older Persons: Promoting Greater Choice

Terri R. Fried, M.D.

The “Big-Picture” Questions

- Do our current approaches to diagnostic and treatment decision making deliver the care that our older patients wish to receive? *(No)*
- Are there different approaches to decision making that can do a better job? *(Yes)*

Outline

- Case description.
- Consideration of the evidence.
  - Traditional approach to healthcare decision-making.
  - Limitations of the approach for older persons.
- Return to the case.
- New approach for decision-making and treatment planning for the older person with multiple conditions.

Mrs. Travis

- 80 year old woman taking 7 medications for diabetes mellitus, coronary artery disease, hypertension, and congestive heart failure.
  - Medications: glipizide, atenolol, lisinopril, HCTZ, furosemide, aspirin, simvastatin.
- Presents to her PCP concerned that medications are making her dizzy and tired.

Mrs. Travis (continued)

- She asks if any of the medications could be discontinued.
  - PCP's response: "You need them."
- Does she "need" them? Why or why not?

The Traditional Approach to Healthcare Decision-Making

- Based on the notion that there is a single correct approach or standard of care.
- Focus is on reducing variability in care delivery.
- Promoted through the use of clinical guidelines.
- Each disease has its own set of guidelines.

When the Traditional Approach Works

- 32 year old patient who presents to the ER with fever, photophobia, stiff neck. Focused evaluation results in diagnosis of meningitis.
- Any question about what to do?
  - Without treatment, extremely bad outcome.
  - With treatment, extremely good outcome.
  - Burdens of treatment negligible when put up against difference in outcomes (“costs” are low).

When the Traditional Approach Doesn't Work

- When there is no option that can provide optimal outcomes at minimal costs.
  - Attempt to achieve desired outcome comes at risk of something undesired: adverse outcome, diagnostic/treatment burden.
  - In other word, decision involves a **trade-off**.
- When a trade-off is involved, only the patient can tell us what is most important.
  - If there are variability in what is most important, then we need to provide multiple options.

The Heterogeneity of Older Patients

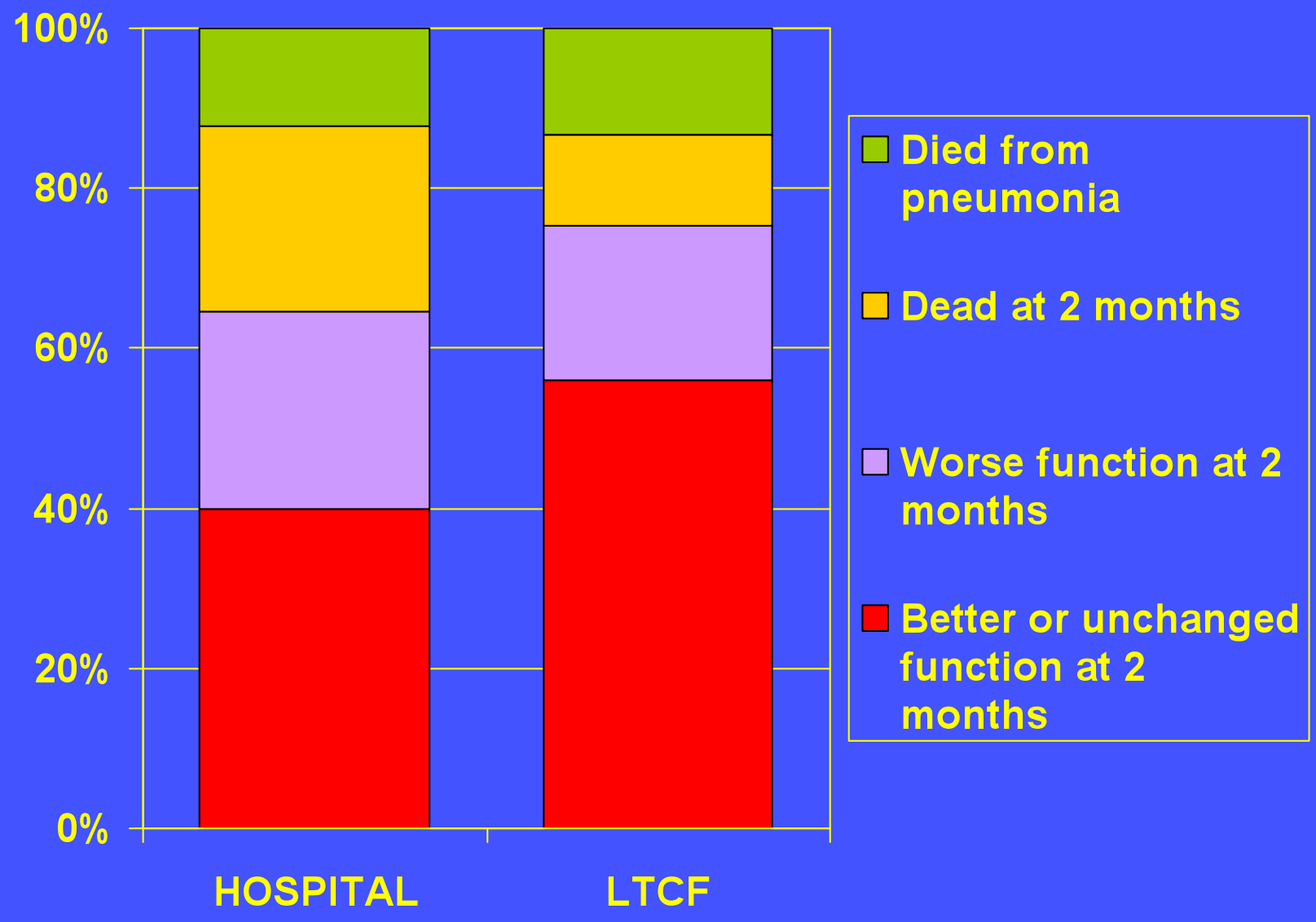
- Heterogeneity in health status increases with advancing age.
  - Function of co-morbid conditions, functional disability, and frailty.
- These factors increase the likelihood that, with a standard approach to care, the older person will:
  - Suffer an unintended adverse outcome.
  - Derive less benefit.

Examples of Unintended Adverse Outcomes/ Decreased Benefit

- Pneumonia in the LTC patient
- Stroke prophylaxis in atrial fibrillation
- Application of disease-specific guidelines.

LTC Treatment for Pneumonia

- Cohort study of 318 cases of pneumonia in one LTC facility.
- Patients treated either in the facility or in the hospital.
- Patients with less severe illness had equal survival at both sites.
- Patients with severe functional disability had high mortality regardless of treatment site.



Fried TR, Gillick MR, Lipsitz LA. J Am Geriatr Soc. 1997;45:302-6.

Anticoagulation for Atrial Fibrillation

- Recent meta-analysis of RCTs concluded that excess risk of bleeding from anticoagulation virtually negligible.
- In contrast, warfarin bleeding risk based on observational Medicare data ranged from 1.9 to 12.3 per 100 patient-years.
- 30-day mortality after bleed: 22%

A Comparison of 5-Year Outcomes for 2 Patients with Atrial Fibrillation

70 y/o man with well-controlled hypertension, heart failure, diabetes mellitus, and non-ulcer-related abdominal pain:

	No medication	Aspirin	Warfarin
Stroke	26%	21%	9%
Bleed	4%	7%	9%

70 y/o man with poorly controlled hypertension, renal disease, and history of a fall:

	No medication	Aspirin	Warfarin
Stroke	13%	10%	5%
Bleed	2%	4%	34%

Fraenkel L & Fried TR. Arch Intern Med. 2010; in press.

Consequences of Disease-Specific Guidelines for Older Persons with Multiple Conditions

79-year-old woman with osteoporosis, OA, DM, HTN, and COPD.

- What do guidelines recommend?
  - 12 meds, 19 doses, taken 5 times/day plus weekly med.
  - 14 non-pharmacologic interventions.
  - Numerous doctor visits.
  - Multiple potential medication interactions.
  - Contradicting recommendations.

Boyd CM, et al.. JAMA 2005;294:716-24.

Summary: Older Persons, Traditional Interventions, and Health Outcomes

- Range of health outcomes broad among older persons.
  - Reflects increased heterogeneity in health.
- With increasing co-morbidity burden/ lower functional status, likelihood of benefit decreases and likelihood of harm increases.
- Treatment of multiple diseases in and of itself increases risk of harm.
- Rather than being dismissed as a “side-effect,” need to think about risk of harm as a “competing risk.”

Halfway Towards a New Approach

- Need for a consideration of individualized or tailored outcome assessment.
- Based on epidemiology alone, possible to identify patients who will not benefit from standard approaches to care.
  - Cancer screening for patients with limited life expectancy.
  - Just about anything invasive among persons with severe functional/cognitive disability.

- For these patients, there is still one “correct” approach to treatment.
  - Just different from the “standard” approach.
  - Task is to define a new standard that provides best objective outcome.
- But the title of my talk is “More Choices!”

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The Heterogeneity of Older Persons, Part 2

- Faced with the same set of risks and benefits, older patients will differ in the importance they place on those risks and benefits.

Examples of Variability in Preferences

- Home versus hospital treatment for acute medical illness.
- Home versus hospital treatment for terminal illness.
- Trade-offs in end-of-life care.
- Priorities of older persons with multiple chronic conditions.

Preferences for Home versus Hospital Care in Acute Illness

Scenario	Home (%)	Hospital (%)
Equivalent outcomes	46	54
Hospital better	6	94
Home better	88	12

Fried TR, et al. Arch Intern Med 2000;160:1501-1506.

Preferences for Home versus Hospital Care in Terminal Illness

- 48% preferred hospital.
- 43% preferred home.
- When choices not constrained, nursing home was choice of some.
  - Desire to lessen burden on family members.

Fried, et al. Ann Intern Med. 1999;131:109-112.

Assessing Preferences for End-of-Life Care

- Participants asked to consider exacerbation of their illness, which, if not treated, would result in death.
- Treatment decision framed in terms of different potential outcomes.

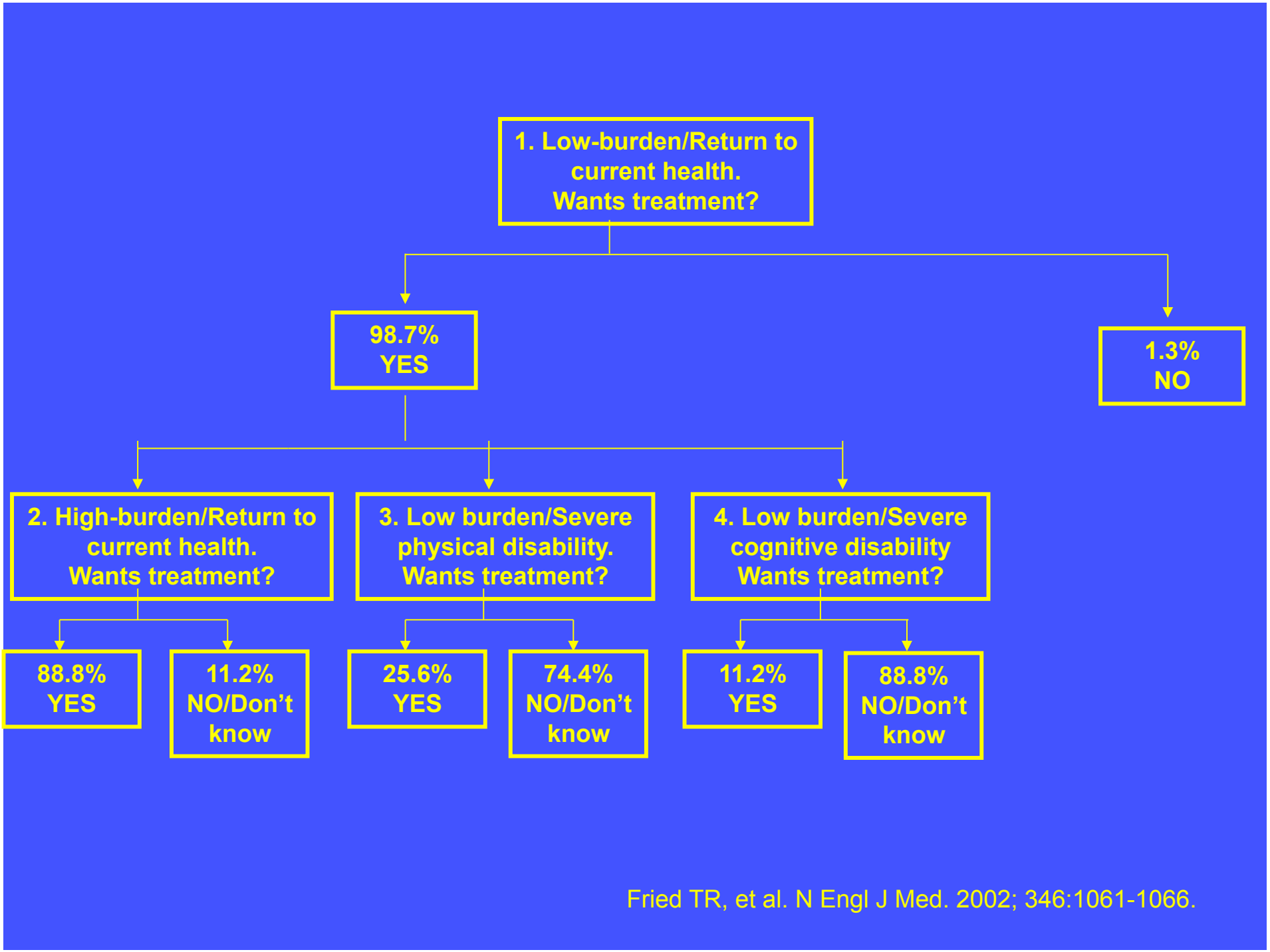
Fried, et al. J Gerontol Psychol Sci Soc Sci. 2002;57:S348-S354.

Scenario 1: Would you be willing to undergo low-burden treatment if it returned you to current health?

Scenario 2: Would you be willing to undergo high-burden treatment if it returned you to current health?

Scenario 3: Would you be willing to undergo low-burden treatment if it resulted in severe physical disability?

Scenario 4: Would you be willing to undergo low-burden treatment if it resulted in severe cognitive disability?



Fried TR, et al. N Engl J Med. 2002; 346:1061-1066.

Scenario 1: Would you be willing to undergo low-burden treatment if it returned you to current health?

Scenario 2: Would you be willing to undergo high-burden treatment if it returned you to current health?

Would you still be willing to undergo treatment if there was a (1, 10, 50, 90, 99%) chance of death versus a return to current health?

Scenario 3: Would you be willing to undergo low-burden treatment if it resulted in severe physical disability?

Scenario 4: Would you be willing to undergo low-burden treatment if it resulted in severe cognitive disability?

Would you be willing to undergo treatment if there was a (99, 90, 50, 10, 1%) chance of disability versus a return to current health?

CHART C

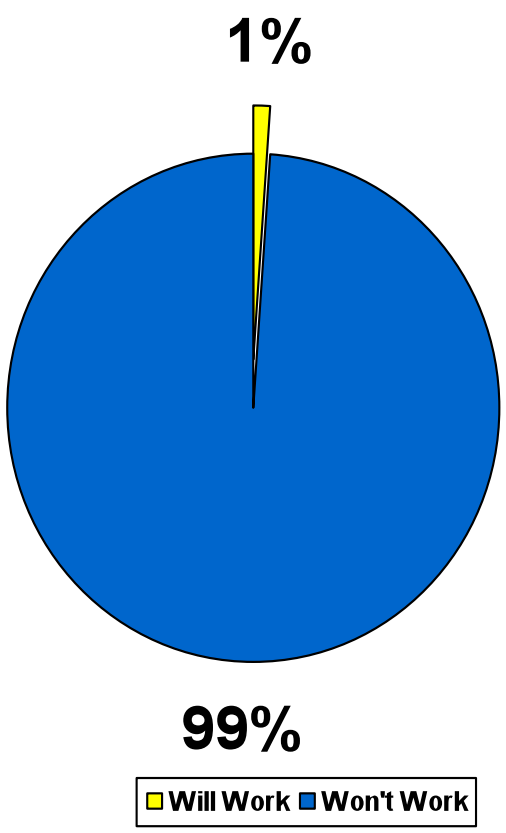
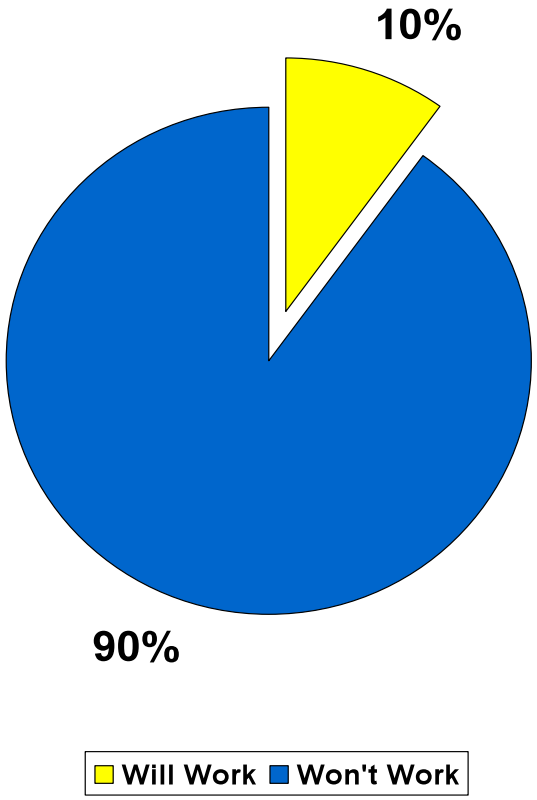
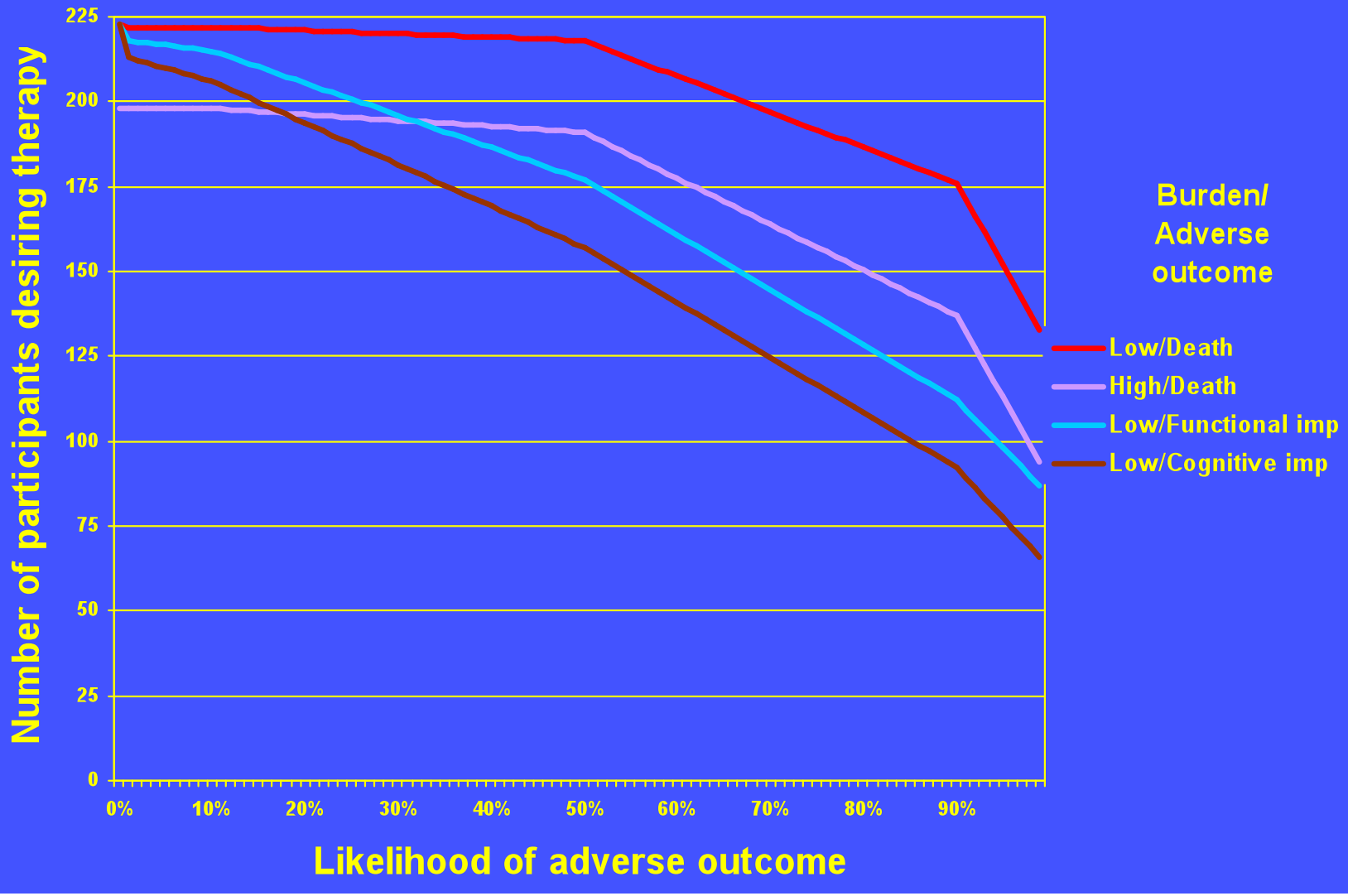


CHART B



Effect of Probabilities on Preferences



Summary: Patients' Views of Trade-offs in Advanced Illness

- Outcomes of care, rather than process of care, are a major determinant of treatment preferences.
- Diminished states of health represent particularly important outcome.

Outcomes in Chronic Disease: The Problem of “Apples and Oranges”

- Competing outcomes presented in disease-specific terms:
  - Atrial fibrillation: Stroke versus bleed.
- How can we expect ourselves or our patients to weigh these outcomes against one another?

The Patient's Approach to Decision-Making for Competing Conditions

- Focus groups conducted with older persons who were taking ≥ 5 prescription medications or regularly scheduled OTCs.
- A total of 66 persons participated:
  - Mean (range) medications: 7 (5-14)
  - Mean (range) chronic conditions: 5 (3-8)
- Asked about their own conditions and to consider whether they would take a medication with a known competing outcome.

Fried TR, et al. J Am Geriatr Soc. 2008;56:1839–1844.

Adverse Effects are not “Side” Effects

- Adverse effects of medications as, if not more, important than are the desired effects:
  - *If you have side effects, you don’t have a choice. You just stop taking the medication because it could lead to something else happening.*
  - *I don’t think that anything that has an immediate bad side effect would be good for your long-term effect. What other part of the body would it damage?*

How Participants Conceptualize Outcomes: Part 1

- Initially, discussed in terms of disease-specific outcomes:
  - *[The doctor] says to me, 'Your numbers are perfect.' That's all I have to hear.*
  - *The last time I saw the cardiologist, he was practically tap dancing in the office he was so happy. [The medication] has knocked all those numbers down to nothing.*

How Participants Conceptualize Outcomes: Part 2

- In the context of decision-making, patients discussed global, cross-disease outcomes:
  - *You will have a stroke or a heart attack from your blood pressure but you won't be dizzy when you die. I think it doesn't even bear asking. You have to be dizzy.*
  - *I have been trying to convince my doctor that I don't need the cholesterol medication any longer, because it has zapped me of my strength, and it is debilitating.*
  - *I think I would go back to the thing that I fear most, being incapacitated and living, so I would choose whatever would prevent that.*

Revisiting the "Apples and Oranges" Problem

- Need to map disease-specific outcomes (e.g. stroke, bleed) onto global outcomes (e.g. survival, function, symptoms).
  - We can't do this yet, but work is underway in this area.
- Then, can compare competing outcomes on a common metric.
- Can patients then tell us which domain is most important?

Quantifying the Relative Importance of Outcomes

- Tool asking participants to rank 4 outcomes on a scale from 0 to 100.
  - Living as long as possible, independence, eliminating pain, eliminating other symptoms
- Script focuses on need for trade-offs:
  - A treatment that makes one outcome better may make a second outcome worse.
- Told that ranking one outcome lower than a second means they would be willing to give up some of the first to get more of the second.

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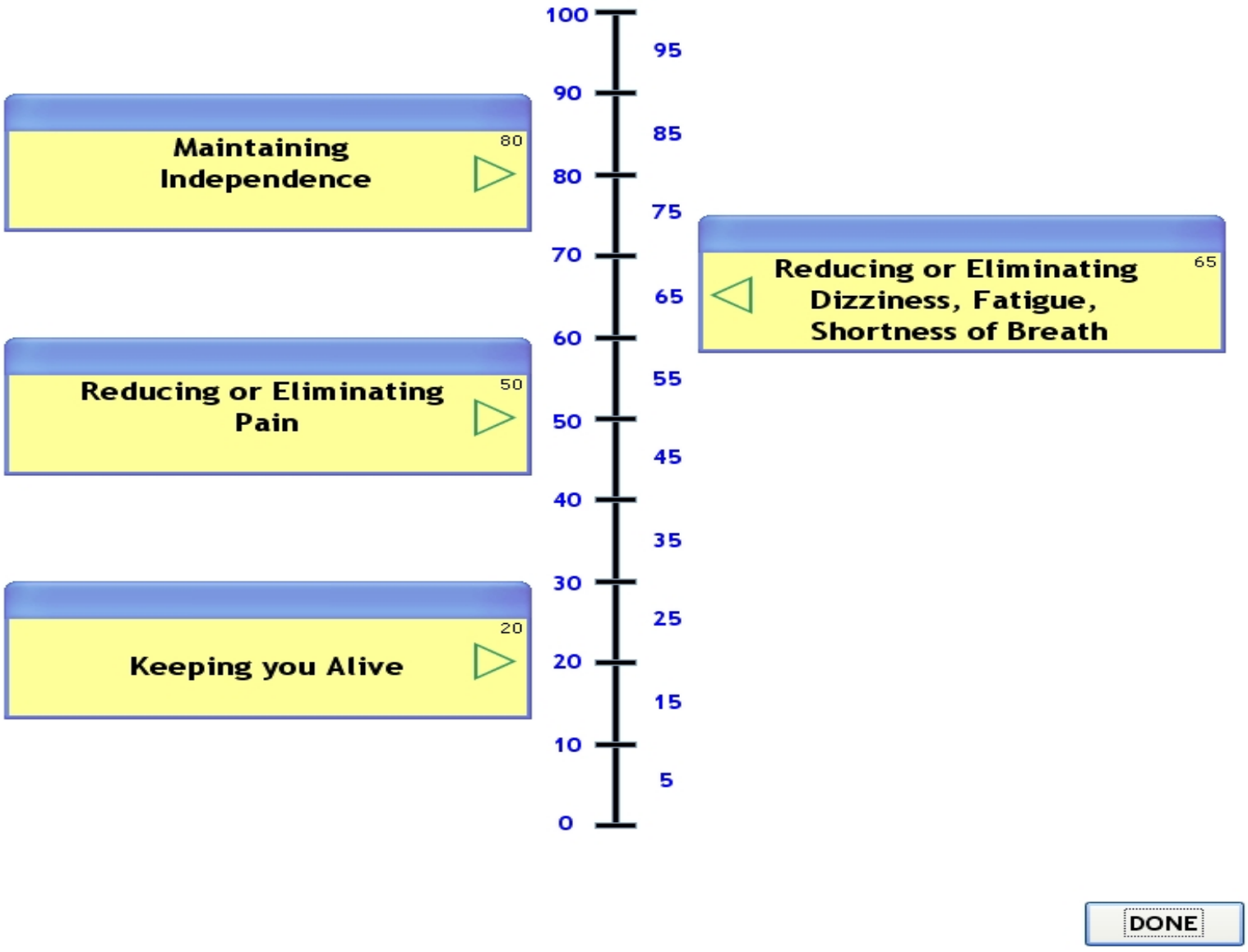
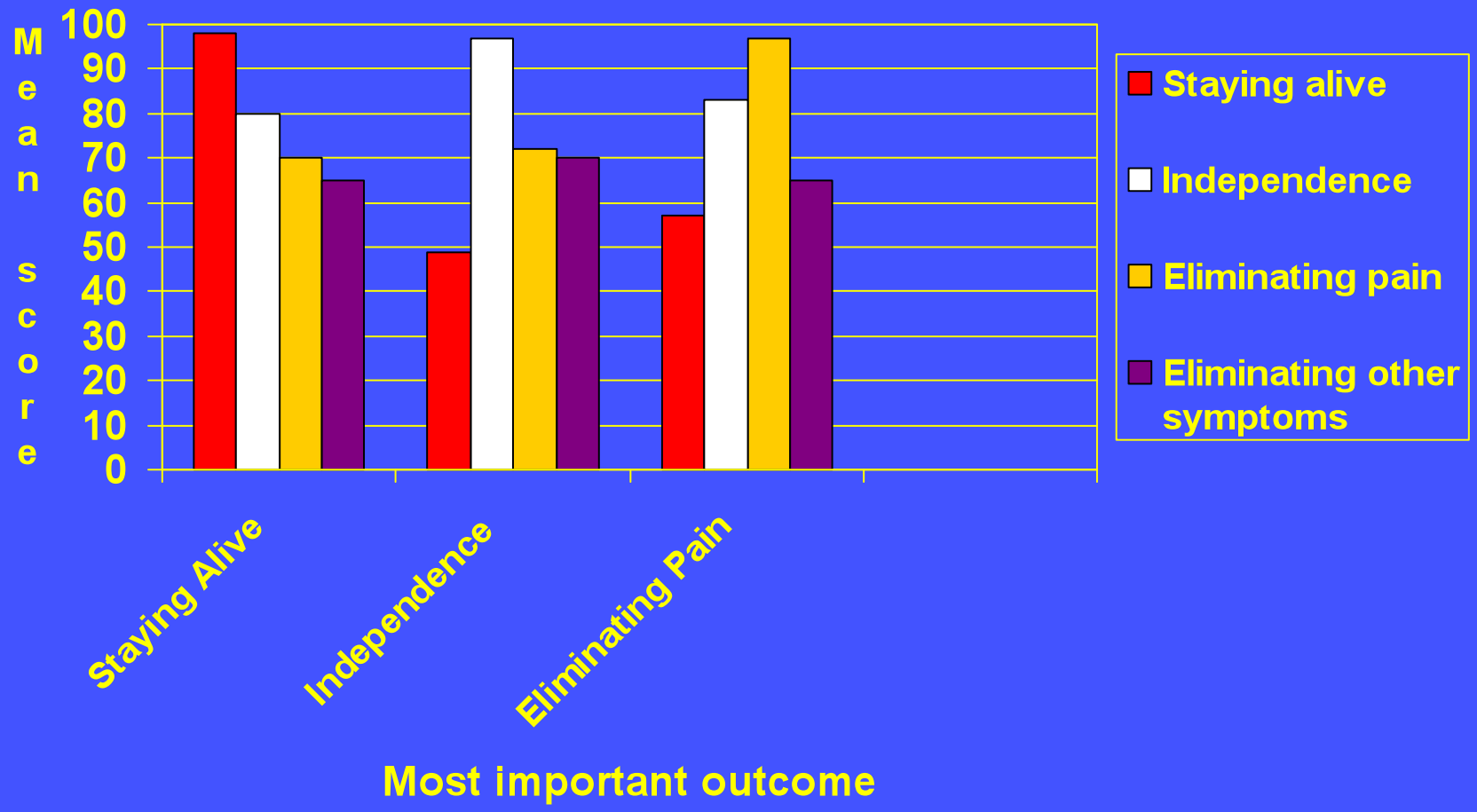


Desired Outcomes

	Most important	Least important
	N=327	
	← % →	
Maintaining independence	76	3
Staying alive	11	61
Eliminating pain	7	15
Eliminating other symptoms	6	21

Importance Ratings Stratified by Most Important Outcome



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PRIORITY

My Quality of Life 1 Year From Now

100

My Quality of Life Now

100

Importance of Now vs. Later

	%
Now > Later	45
Now = Later	30
Now < Later	25

Mrs. Travis

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- Presents to her PCP concerned that medications are making her dizzy and tired.
- She asks if any of the medications could be discontinued.
  - PCP's response: "You need them."
- Does she "need" them? Why or why not?

- “Need” depends upon what the patient wants us to achieve/avoid with our interventions.
- Standard disease-based interventions come with a risk of adverse outcomes.
- These outcomes may be as or more important to the patient as the outcome we as physicians are hoping to achieve.

A New Approach to Healthcare Decision-Making for the Older Person

- Begin with the person's health outcome priorities.
  - What is most important health outcome to achieve or avoid?
- Have in mind multiple options, with different sets of competing risks.
  - Likelihood of desired versus undesired outcomes based on the patient's co-morbidities.
- Choose the option most likely to achieve the individual's desired outcome.