

A physician executive's approach to shared decision making within a payer framework

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Things to discuss

- Decision-making
- Current state of clinical decision support
- Evidence and medical coverage
- Adding more dimensions into decision-making
- A cracked crystal ball

Getting meta on decision-making

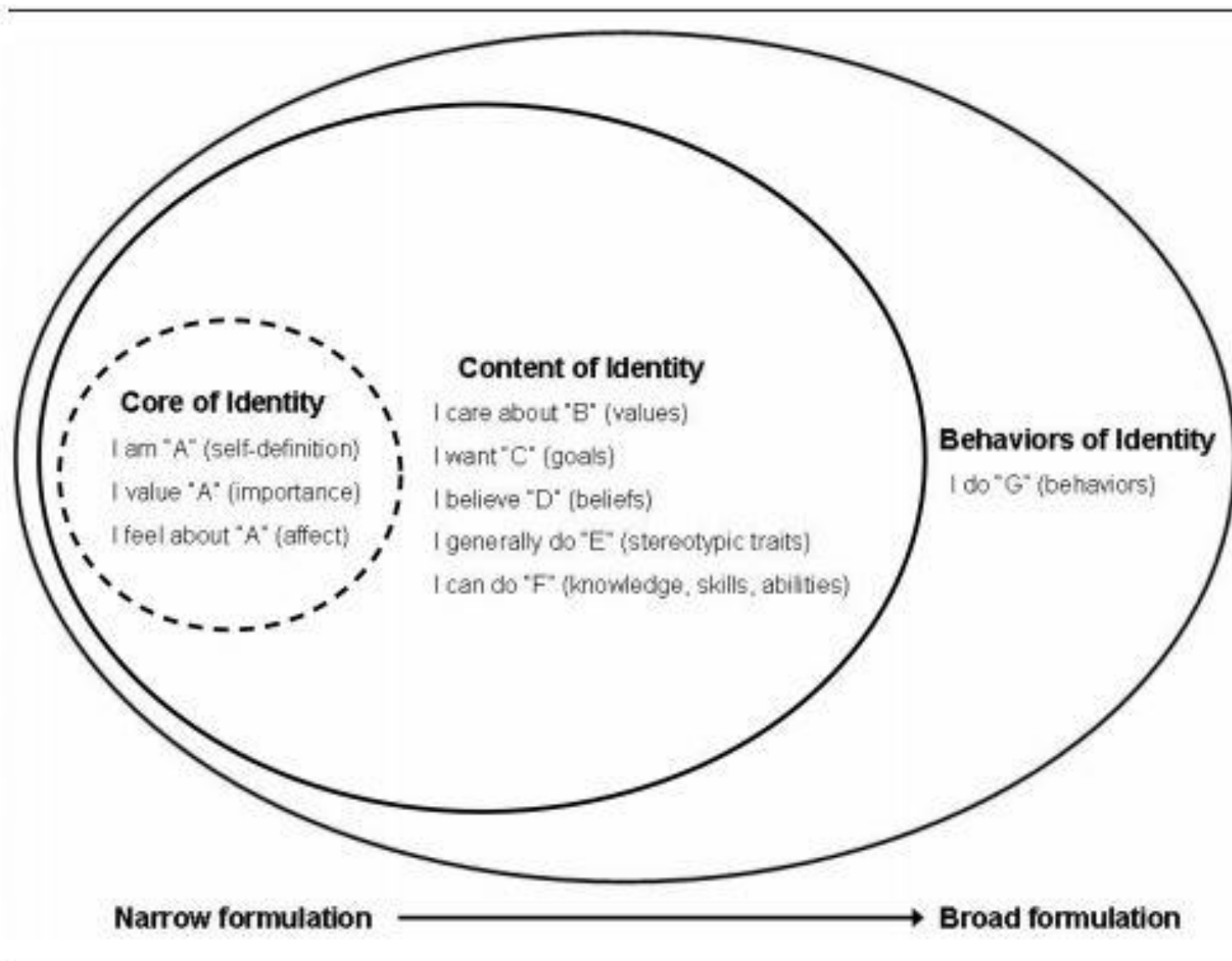
- Exposing valid alternative courses of action to support a person making a conscious choice
- Scientific method:
 - Defining problem (objective, constraints)
 - Analysis
 - Develop alternative solution(s)
 - Decide upon best solution
 - Convert decision into effective action
 - Follow-up the decision

Deciding on the best solution (Ben Franklin)

- Make a list of pro's and con's
- Apply weights to each factor
- Remove lower-weighted factors to focus the decision on the highest-weighted factors

What are the inputs for a “good” healthcare decision?

- Will the course of action address the need
 - Make the diagnosis
 - Address my symptoms
 - Reduce my risk of long-term sequelae
- Can I perform the actions required?
 - Personal knowledge, skills, attitude
 - Historical information from peers
- Is the course of action consistent with my current identity?



[BE Ashforth, SH Harrison, KG Corley. Identification in Organizations: An Examination of Four Fundamental Questions, Journal of Management 2008 34:325.](#)

Increasing an individual's confidence in making a healthcare decision

- Trusted guide
 - Competent
 - Acts as a fiduciary, and
 - Understands the individual's wants and needs
- Information from others about decision outcome
- Longitudinal feedback that the decision was “correct” (ongoing decisions)



COSTCO®
WHOLESALE

Compare and Contrast

Consumer Reports

- Rigorous, systematic reviews
- Editorial independence
- Non-profit

Amazon

- (Mostly) anonymous online product write-ups
- Manufacturers can offer free or discounted products in exchange for reviews
- Marginally profitable, but incredible market share

“When I look out at other companies,” Stoppelman said, “I see other priorities, namely growing revenue as much as possible. So why didn’t Facebook crack down on certain types of content, or why did they allow sensational stories or stories that are not true to blast across the network and get amplified so much? Had they had the foresight to say, ‘Hey, this is bad for the world’ or ‘This is bad for our long-term brand, we should shut it down,’ it probably wouldn’t have turned into an eventually traumatic political issue.

“But at the end of the day, collecting attention is the way that they make money, and they dial up the algorithm — the same as YouTube, same for Google. You know, it’s like Google and Facebook did the same thing: Use the algorithm to optimize for maximum attention. And if you optimize for maximum attention, you’re leaning into human nature of rubbernecking at train crashes, and all the worst stuff that humanity can provide. And that’s where you end up. And I’m sure it was like rocket fuel for their business, but now we’re paying the price.”

[Jeremy Stoppelman’s Long Battle With Google Is Finally Paying Off, BuzzFeedNews, 2019.11.5](#)

Google

Google Search

I'm Feeling Lucky



Current state of CDS

- Everyone talks about it, but no one uses it
 - There are no real rewards or penalties for following CDS
 - All alerts, regardless of importance or relevance, look the same
- Poorly-designed CDS exposes everyone to the same alerts, regardless of action appropriateness
- The electronic medical record experience is poisoning the clinician from ever logging into a computer in the exam room

Evidence and medical coverage

- Entities that develop proprietary “better” evidence get punished severely when applying the “general and usual practice by peers” standard for malpractice
- Payers should compete on different dimensions beyond “better” evidence
 - Patient preferences
 - Focus on large or irrevocable costs
 - Outcomes from others’ decisions
 - Tracking patient-reported outcomes

ICHOM for general adults (draft)

Metric	Tool
General Health	PROMIS Global Health 10
General Mental Health	PROMIS Global Health 10
-Vitality	WHO-5
-Anxiety	PROMIS Global Health 10
-Sleeping	WHO-5
-Depression	PROMIS Global Health 10
General Social Health	PROMIS Global Health 10
-Interpersonal	PROMIS Global Health 10
-Work	PROMIS Global Health 10
General Physical Health	PROMIS Global Health 10
-Fatigue	PROMIS Global Health 10
-Pain	PROMIS Global Health 10
-Seeing	(1 item)
-Hearing	(1 item)
-Physical Function	WHODAS 2.0 (12 items)
-Mobility	PROMIS Global Health 10

ICHOM for general adults (draft)

Risk factors	Tool
Age	
Sex	
Level of education	
Marital status	
Employment status	
Housing status	
Comorbidities	Modified self-administered comorbidity questionnaire (SCQ, 14 items)
Body-mass index	
Blood pressure	
Cardiovascular risk	Sex, age, smoking status, blood pressure, cholesterol, diabetes status
Smoking	
Alcohol intake	
Physical activity/exercise	

Learning from others' experience

- Would you record this information every year?
- Would you share this information every year?
- Other inputs (healthcare decision-specific)
 - Diagnostic certainty
 - Treatment preferences
 - Side-effect concerns
 - Addressing anxiety about false-positives and surveillance

Going to the “edges of evidence”

- Long-term outcomes for decisions made today
- Managing multiple health conditions concurrently as preferences change
- Comparing evidence-based treatments against “newer” interventions

LEGAL?

TOBACCO

5 million deaths per year



ALCOHOL

2.5 million deaths per year



ILLEGAL?

MARIJUANA

No Deaths EVER Recorded
Known Medicinal Qualities



Food for thought.

<https://busy.org/@seifanlj/the-briefly-comparison-about-marijuana-and-tobacco-regulations-and-healthy-cases>

Infertility treatment add-ons

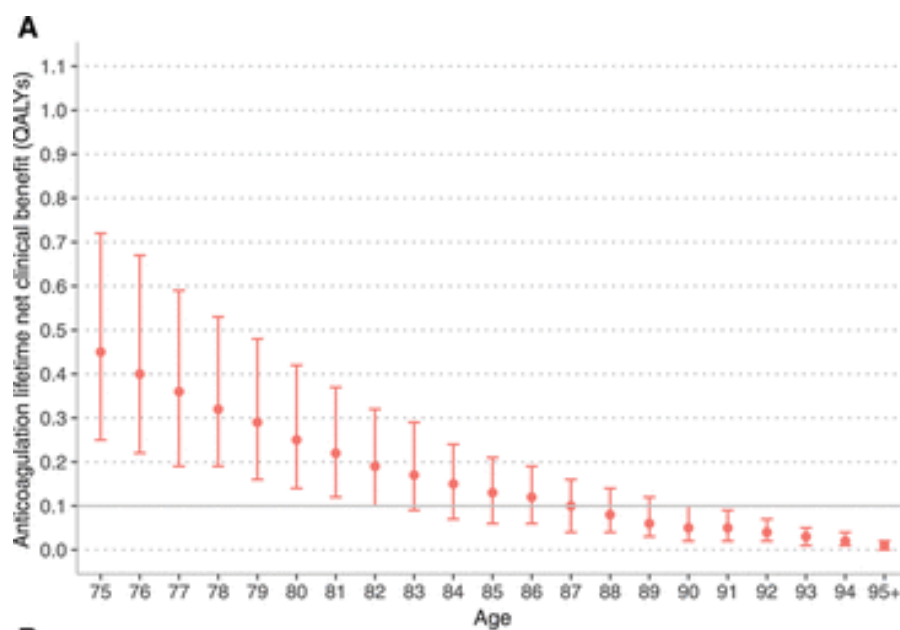
- Endometrial scratching
- Assisted hatching
- Artificial egg activation
- Embryo glue
- Immune suppression

Prostate Cancer

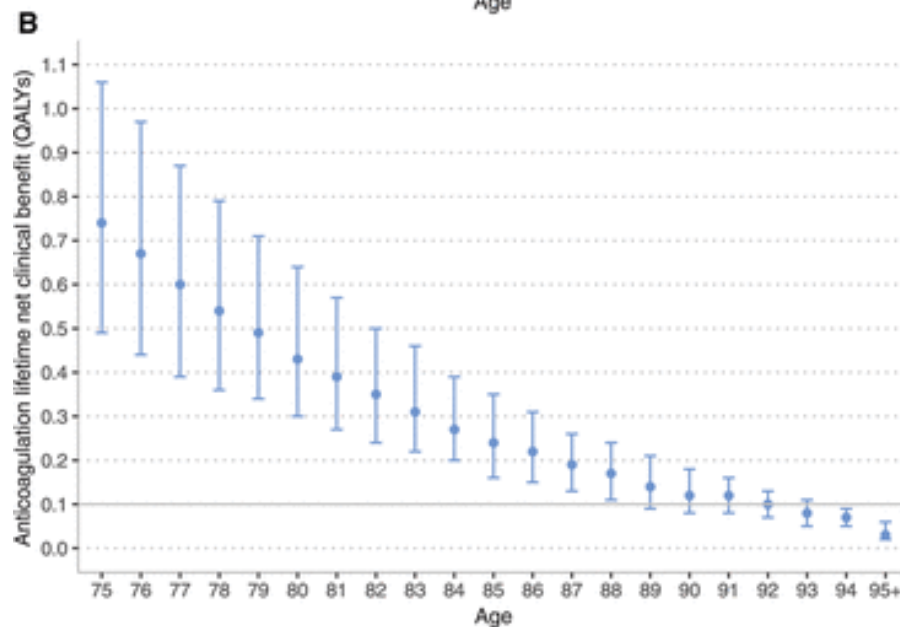
- Chemical castration
- Robot-assisted laparoscopic prostatectomy
- Proton beam therapy
- Carbon ion radiotherapy

Going to the “edges of evidence”

- Long-term outcomes for decisions made today
- Managing multiple health conditions concurrently as preferences change
- Comparing evidence-based treatments against “newer” interventions
- The evidence changes

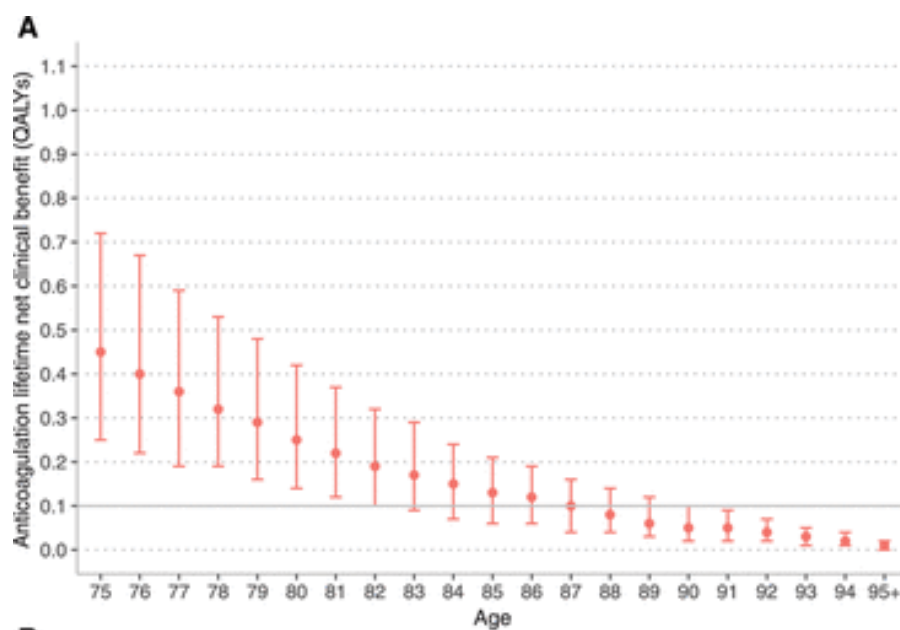


Warfarin

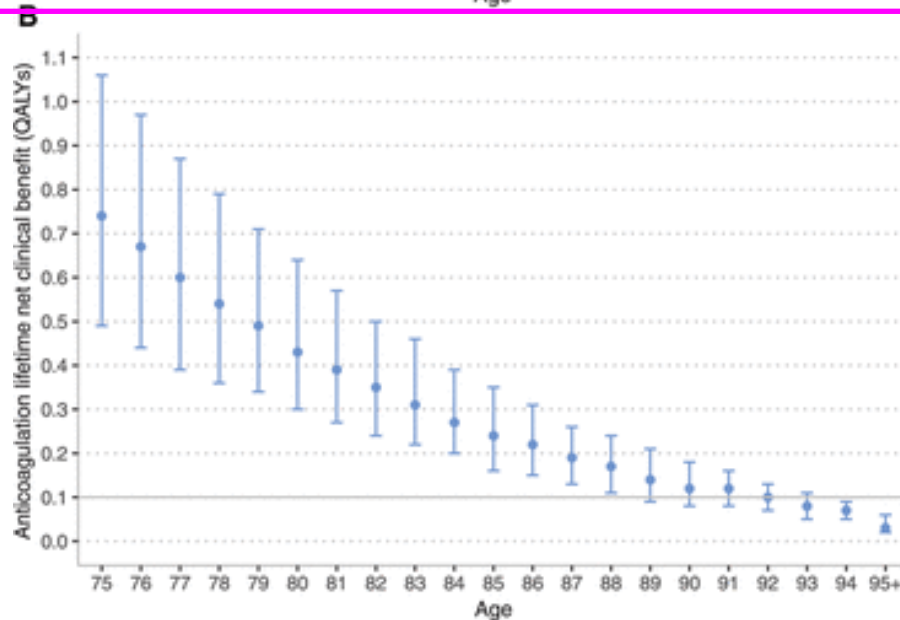


Apixiban

[SJ Shah, DE Singer, MC Fang, *et al.* Net Clinical Benefit of Oral Anticoagulation Among Older Adults With Atrial Fibrillation, Circulation: Cardiovascular Quality and Outcomes. 2019;12:e006212](#)

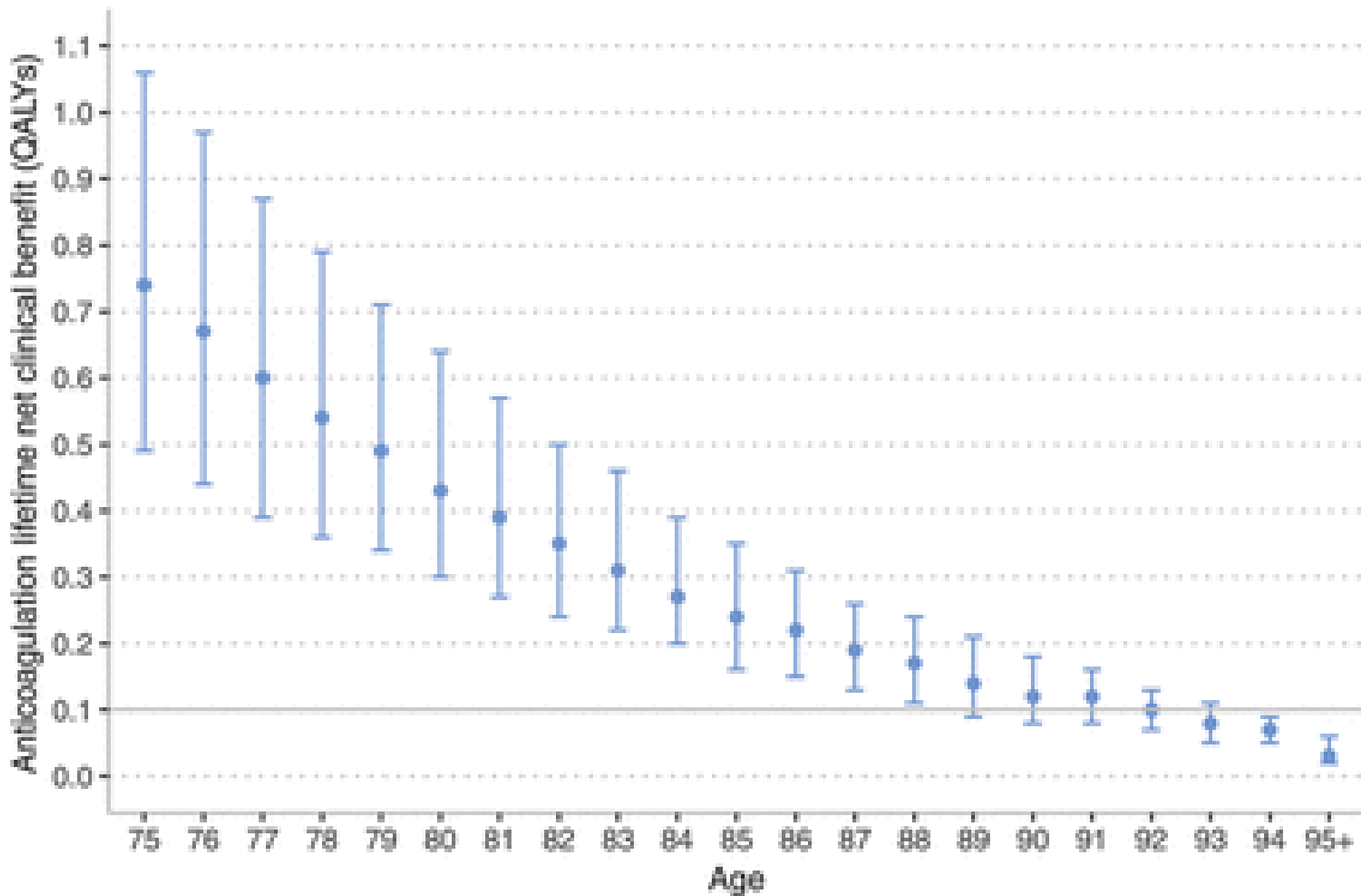


Warfarin



Apixiban

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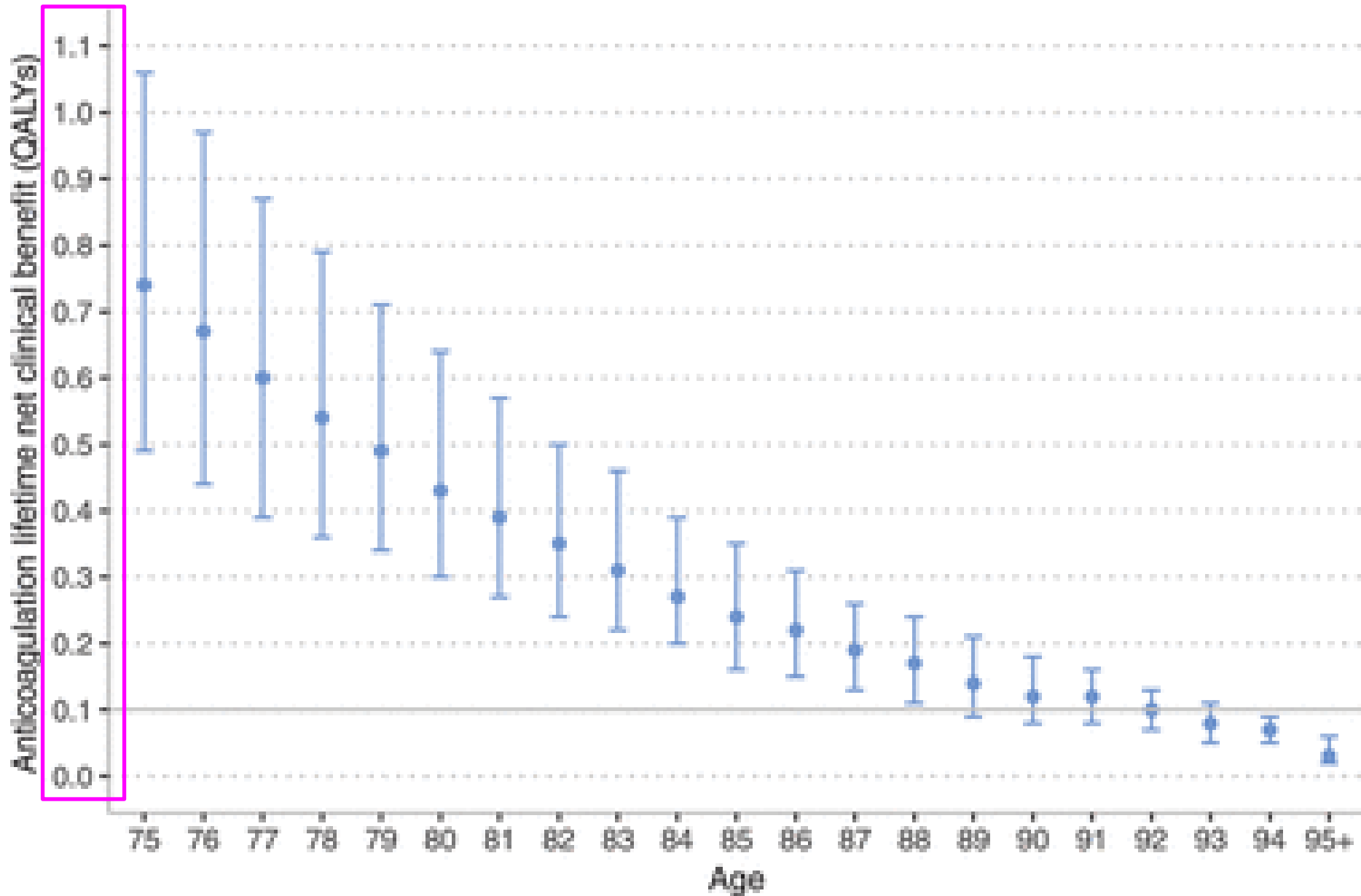


Table 3. Gain in Quality-Adjusted Life Years for Selected Medical Interventions

Selected Interventions	Lifetime QALY Gain
Lung cancer screening (age, 55–75 y with 30 pack-year history) ⁴⁸	0.02
High vs conventional dose statin for stable coronary artery disease ⁴⁹	0.10
Aspirin for primary prevention with new diagnosis of diabetes mellitus ⁵⁰	0.19
High vs conventional dose statin following acute coronary syndrome ⁴⁹	0.35
All studies cited use a lifetime window. QALY indicates quality-adjusted life year.	

What the future might look like

- Providing more information about the interactions among diseases
- Evidence-based medicine for individuals (one-time decisions, maintaining behaviors long-term)
- Getting more control over the computerized decision support experience
- Connecting with payers for medical coverage decisions
- Differential payments by expected diagnostic efficiency or QALY gain
- Storing preferences and historical decisions to power future decisions

Thanks

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