Geriatric Considerations for the Hospitalist

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Disclosure of Interests:

- None

Objectives:

- Explore medicine's relationship with the "oldest old"
- Define barriers to geriatrics care in the hospital
- Assess available research directly to common hospitalist cases:
  - Anticoagulation in A-fib
  - Dialysis initiation/outcomes
  - PEG tube placement

Parking Lot:

- Healthcare system cost considerations
- Communication strategies
- Dealing with families

"Aging is the neglected stepchild of the human life cycle. Though we have begun to examine death, we have leaped over that long period of time preceding death known as old age."

-Butler, R. N., *Why survive?: Being old in America*

"In medicine, we work with a biased sample. When older people are doing well and when they are ill but otherwise fairly well, we think of them as middle-aged, if we think of them at all. That leaves 'old' associated with the common, disquieting extreme: old people who are ill, disabled, or almost dead."

– Dr. Louise Aronson, *Elderhood*

"Gomers, an acronym for get out of my emergency room. . . A human being who has lost – often through age – what goes into being a human being. . . Before the House of God, I had loved old people. Now they were no longer old people, they were gomers, and I did not, I could not love them, anymore"

-Shem, S. *House of God*

The Week, 2022

New Physicians on the Block

GERIATRICIAN

1909: ”Geriatrics” term coined by Dr. Nascher

1988: Geriatric board certification initiation

- **Only 41.5% of geriatric fellowship spots filled 2023**
- **7,300 board certified geriatricians**

HOSPITALIST

1996: “Hospitalist” term coined by Dr. Goldman and Dr. Wachter

1997: SHM founded

- **50% growth of adult hospitalists between 2012 and 2019**
- **44,037 adult hospitalists**

Case 1:

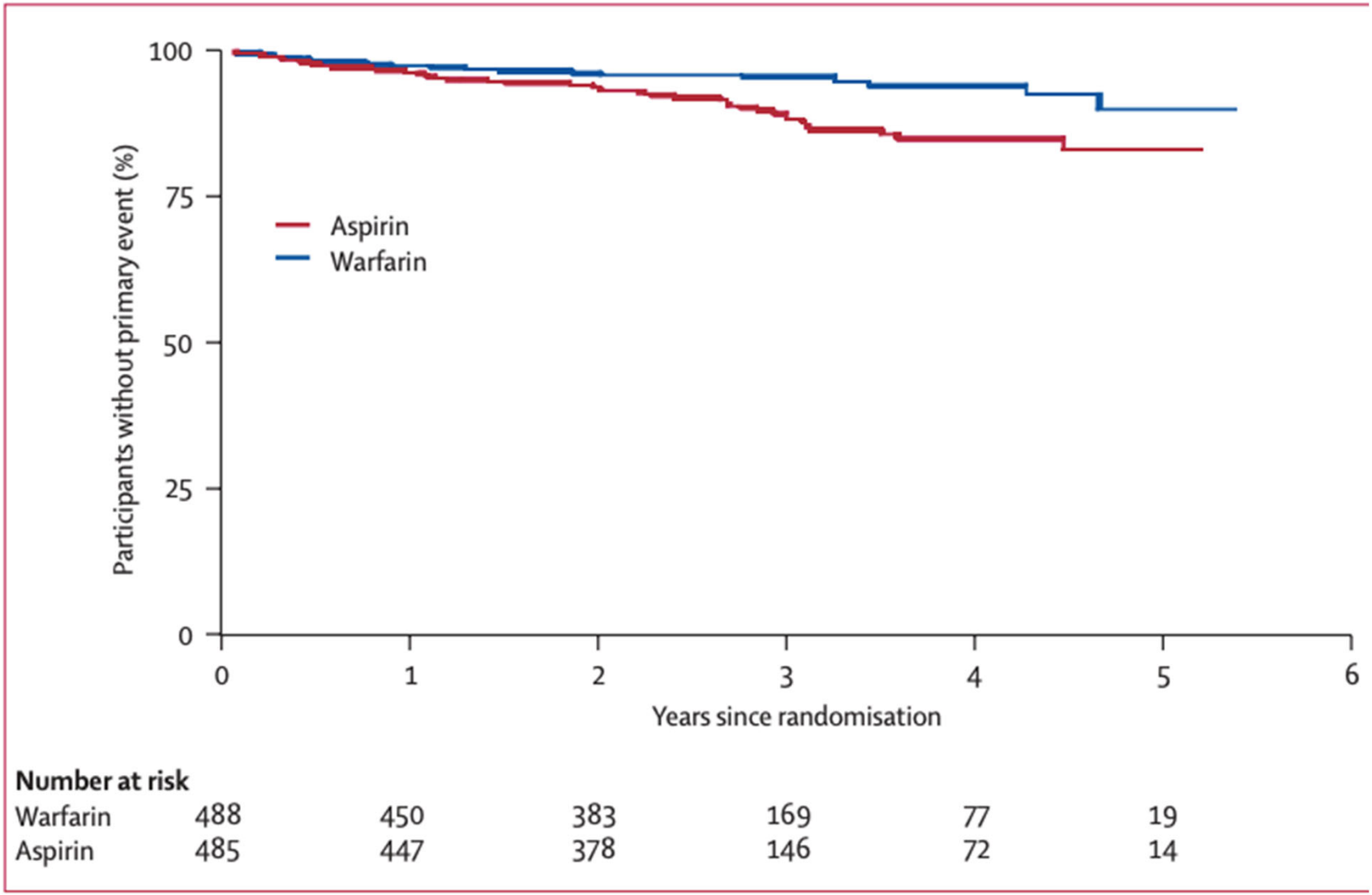
Mr. L. Durley is a _____ year old male with h/o HTN who presented for palpitations. He is diagnosed with new non-valvular atrial fibrillation which is now well-controlled with beta-blocker therapy.

His CHADVASC=3. You are considering anticoagulation.

Warfarin v Aspirin: Composite Outcome

- 973 patients ≥75 years old + A-fib in primary care setting, BAFTA
- RCT: warfarin v ASA 75 mg
- Primary outcome: Fatal/disabling CVA, ICH, arterial embolism
- Secondary outcome: All cause mortality, bleeding events

	Warfarin	Aspirin
Number of patients	488	485
Age (years)	81·5 (4·3)	81·5 (4·2)
Age group		
75–79	197 (40%)	200 (41%)
80–84	196 (40%)	190 (39%)
≥85	95 (19%)	95 (20%)



Number at risk

Warfarin	488	450	383	169	77	19
Aspirin	485	447	378	146	72	14

	Warfarin		Aspirin		Warfarin *vs* aspirin	
	N	Risk per year	N	Risk per year	RR (95% CI)	p
Death						
All causes	107	8·0%	108	8·4%	0·95 (0·72–1·26)	0·73
Fatal primary endpoint	15	1·1%	23	1·8%	0·63 (0·31–1·26)	0·16
Other vascular death*	41	3·1%	34	2·7%	1·16 (0·72–1·88)	0·53
Non-vascular death*	51	3·8%	51	4·0%	0·96 (0·64–1·45)	0·84
Secondary vascular outcomes (fatal and non-fatal)						
All strokes	33	2·5%	61	4·9%	0·52 (0·33–0·80)	0·002
All strokes plus TIA	40	3·1%	70	5·7%	0·55 (0·36–0·82)	0·002

Warfarin v Something Else: All-Cause Mortality

- 1800 patients ≥65 years old + Afib community dwellers
- Retrospective observational study
- Primary outcome: all-cause mortality, average follow-up 2 years

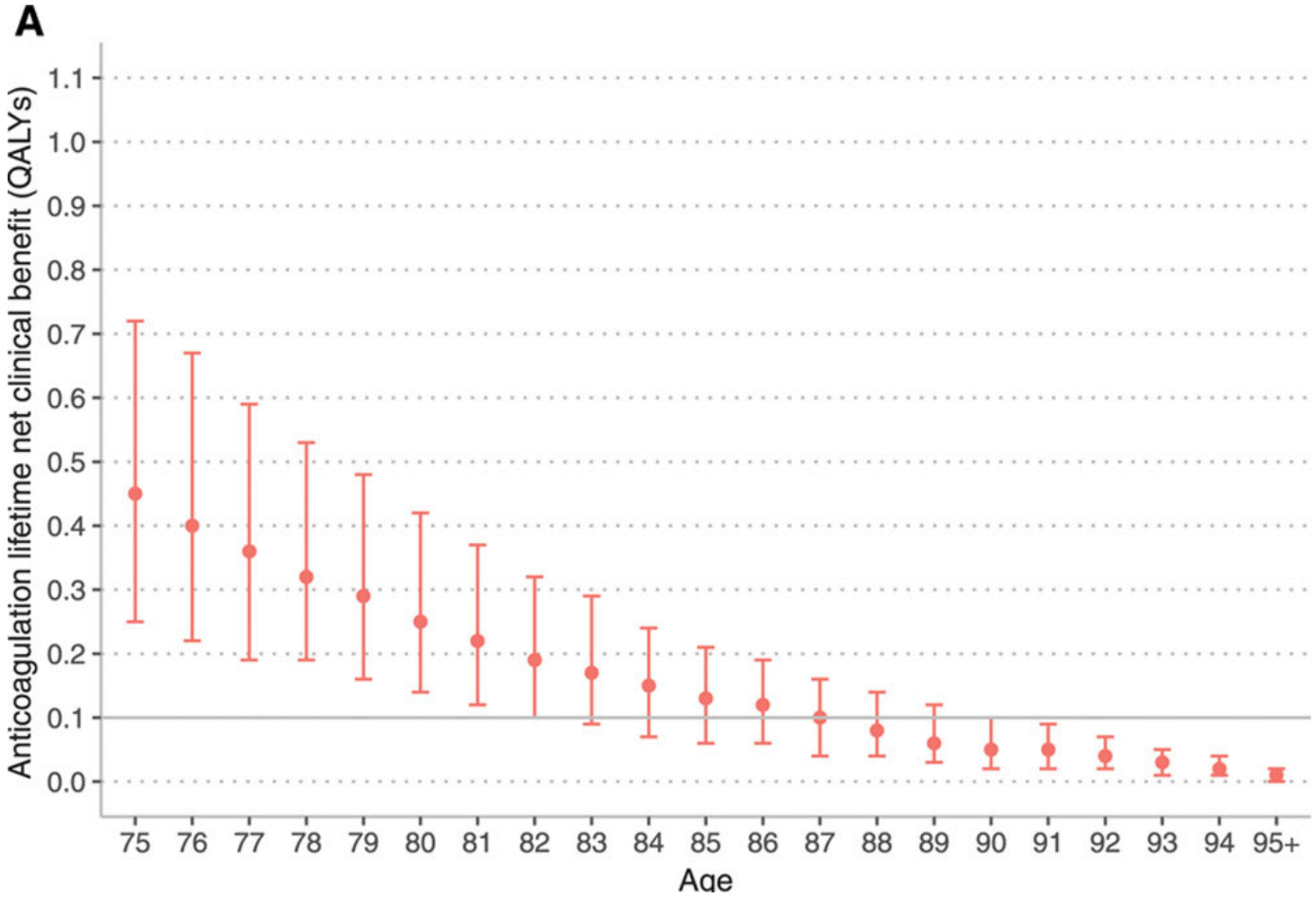
Mortality Prognostic Score	HR
MPI-SVaMA-1	0.64
MPI-SVaMA-2	0.68
MPI-SVaMA-3	0.55

Warfarin v Apixaban v Nothing: QALY

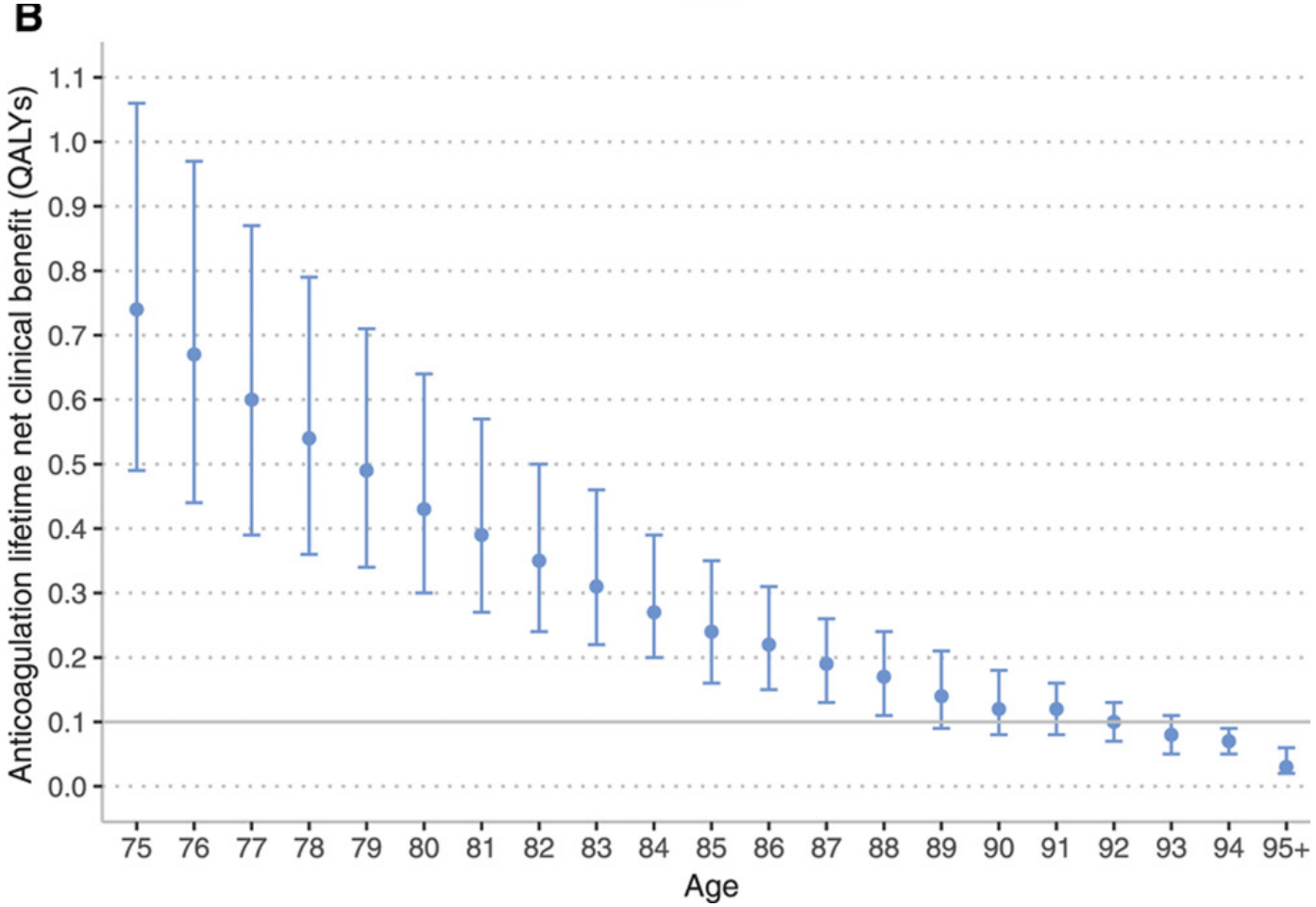
- 15,000 patients >75 yo + Afib from PREPER-AF registry
- Decision analytic cohort study
- Primary outcome: QALY with 0.10 being significant

Intervention	QALY
Lung Cancer Screening (55-75)	0.02
High Dose Statin > Reg Statin	0.10
ASA for Primary Ppx in DMII	0.19

Warfarin on QALY

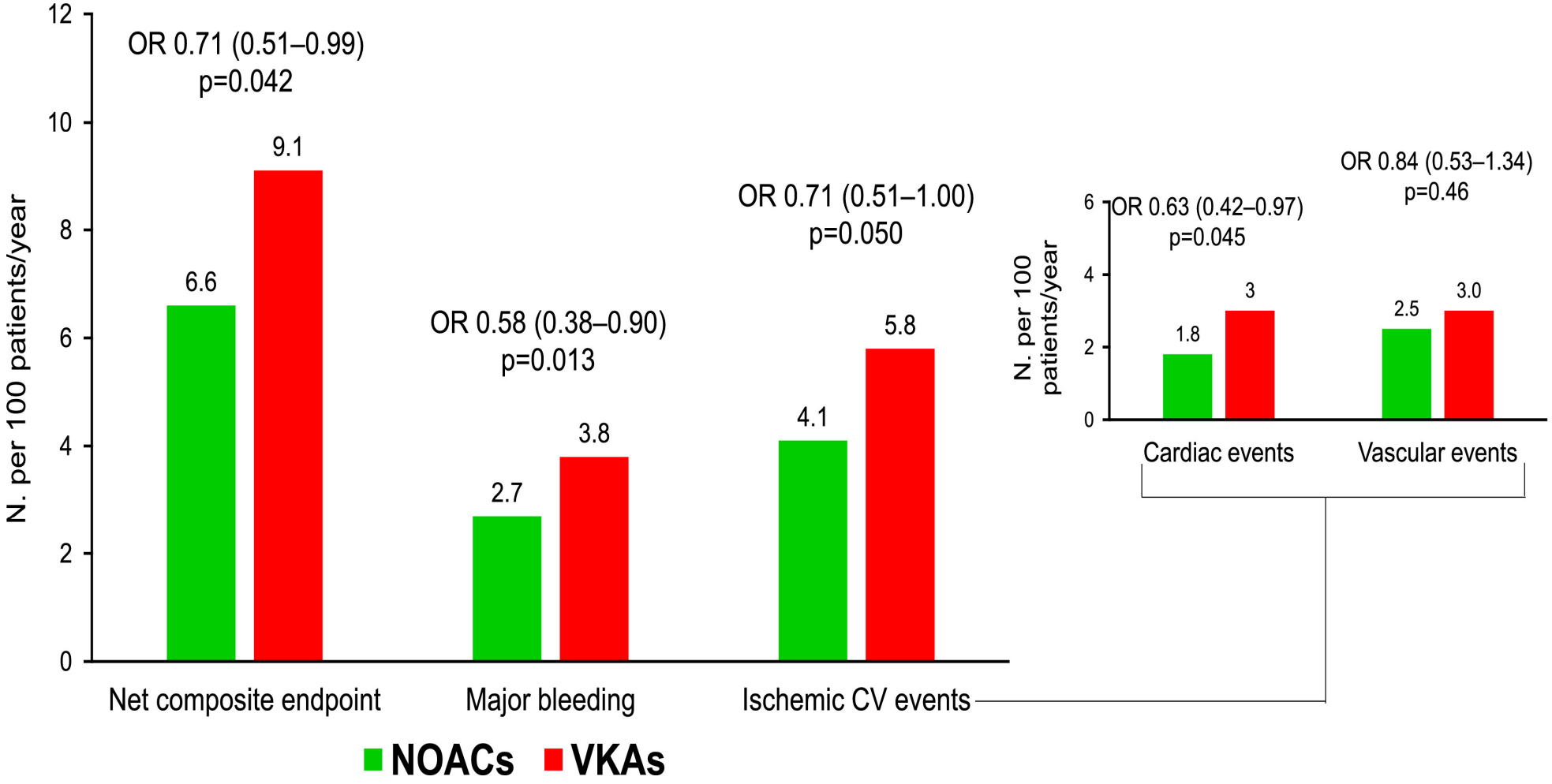


Apixaban on QALY



Warfarin v NOAC: Net Composite Outcome

- 3800 patients >75 yo + Afib from PREPER-AF registry
- Primary outcome: net composite:
  - Major bleeding
  - Ischemic events (CVA, ACS, revasc, TIA, systemic embolism)


12
10
8
6
4
2
0
N. per 100 patients/year
OR 0.71 (0.51–0.99)
p=0.042
6.6
9.1
OR 0.58 (0.38–0.90)
p=0.013
2.7
3.8
OR 0.71 (0.51–1.00)
p=0.050
4.1
5.8
Net composite endpoint
Major bleeding
Ischemic CV events
NOACs
VKAs
6
4
2
0
N. per 100 patients/year
OR 0.63 (0.42–0.97)
p=0.045
1.8
3
OR 0.84 (0.53–1.34)
p=0.46
2.5
3.0
Cardiac events
Vascular events

Other Notes:

- Lack of evidence for antiplatelet agents (Taiwan-NHIRD, AVER-ROES)
- Lack of evidence for reduced dose apixaban (ORBIT-AF)
- **Maybe** evidence for 15 mg edoxaban (ELDERCARE-AF)
- Fall risk/SDH risk is consistently over-considered

My Practice Take-Aways:

- If anticoagulating, **commit** . . . to apixaban

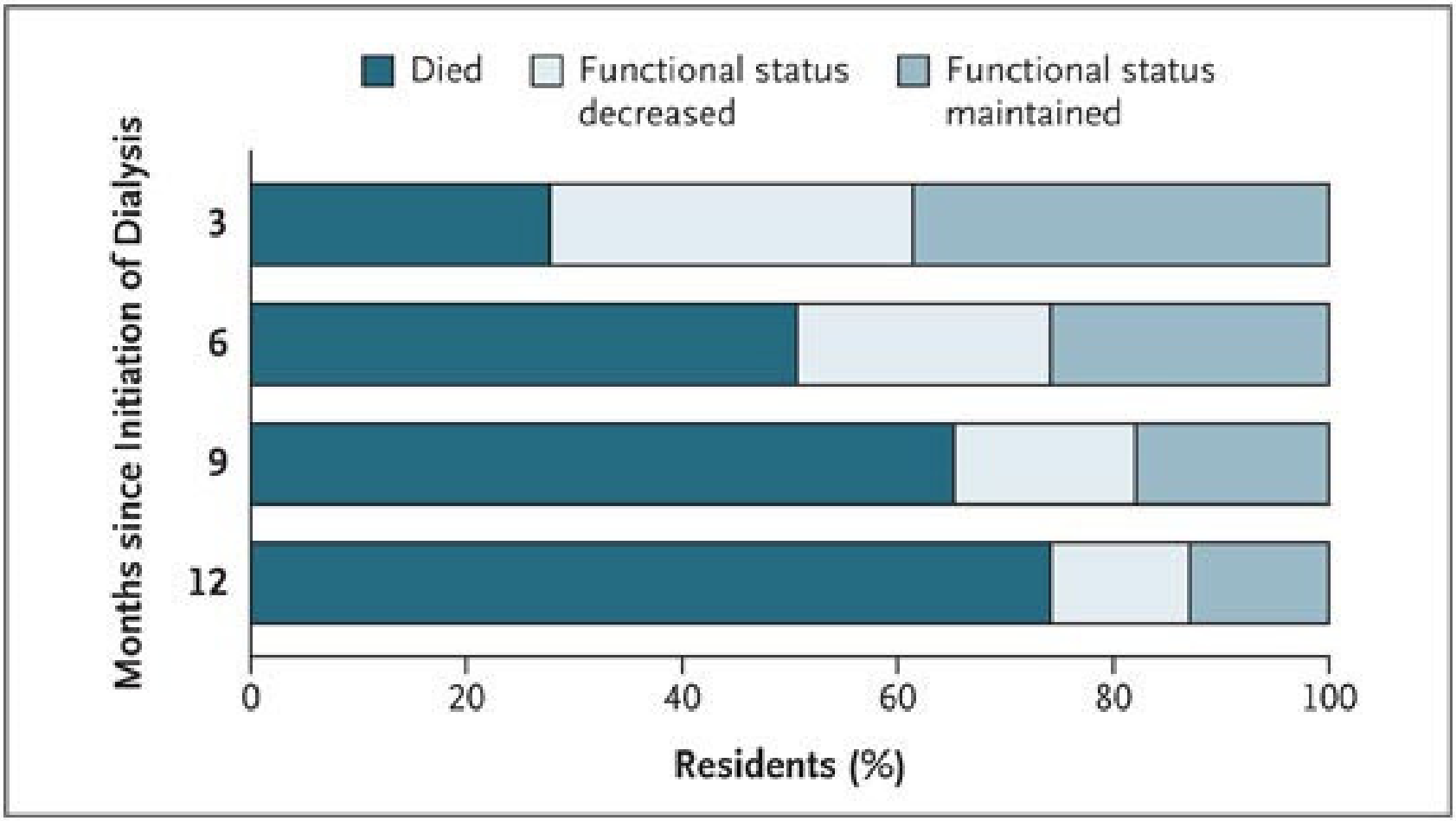
- **By 75**, switch patients on warfarin to apixaban
- **By 85**, start talking overall risk/benefit
- **At 90**, DC anticoagulation

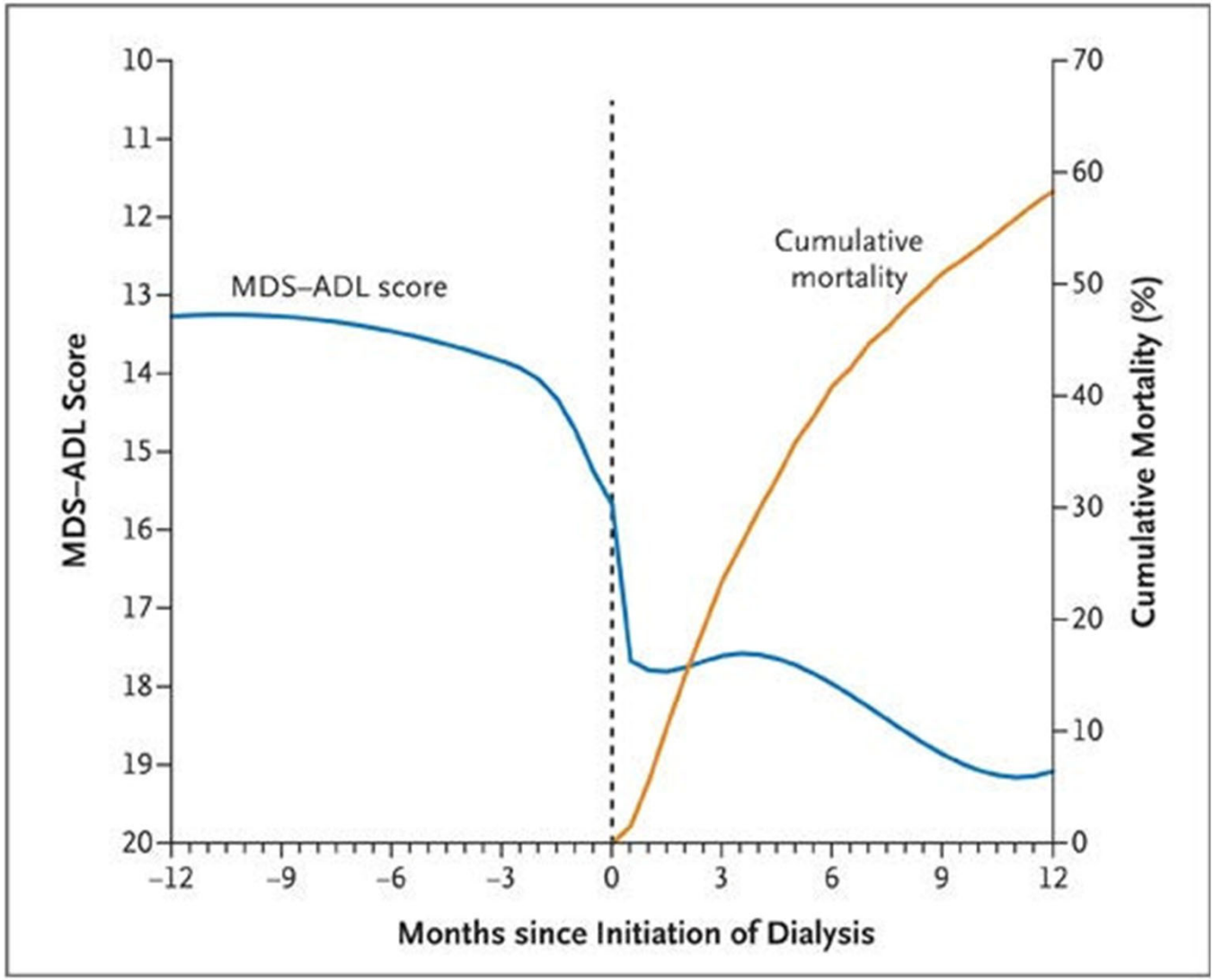
Case 2:

Mr. Jerry Atrix is a _____ year old male who presents with progressive renal failure. Nephrology team is offering dialysis, and patient/family ask you your thoughts on prognosis.

Dialysis in nursing home patients

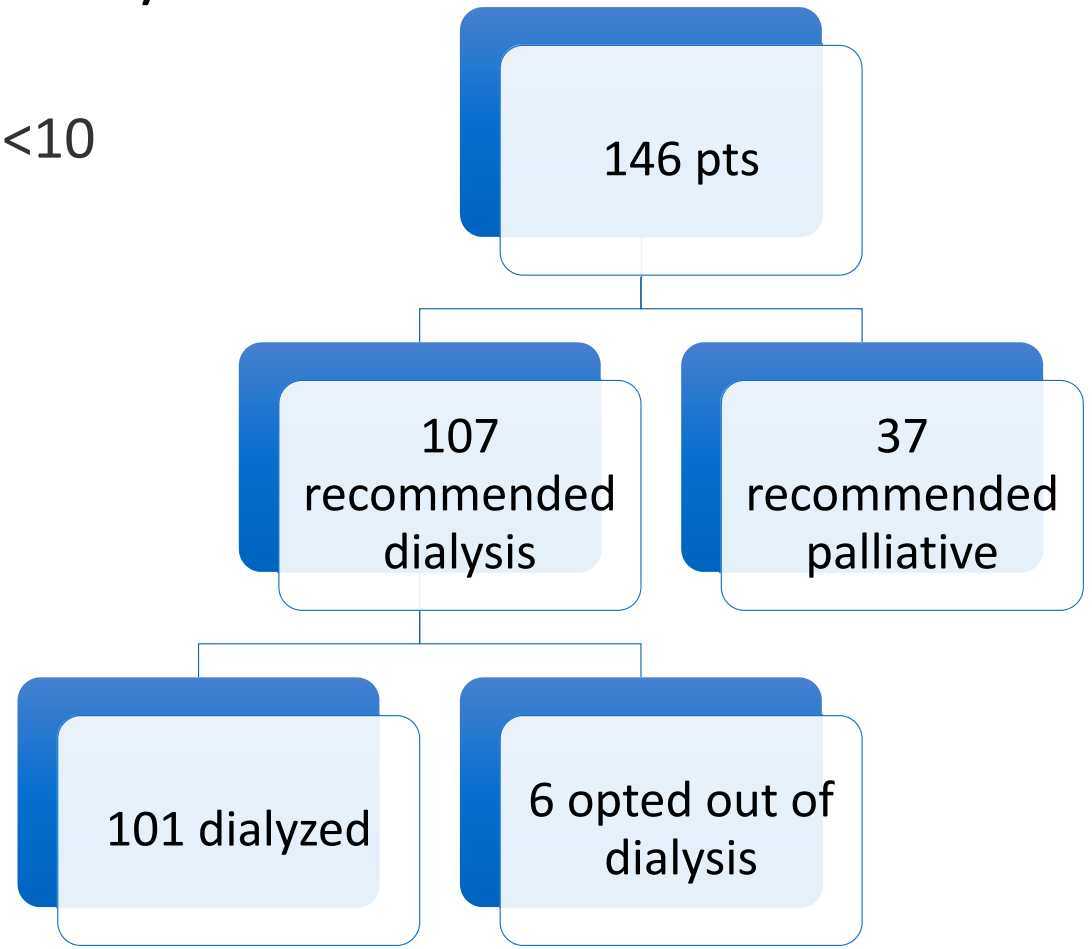
- 3700 nursing home residents, average age 73
- 69% initiated on dialysis during hospitalization
- Registry review

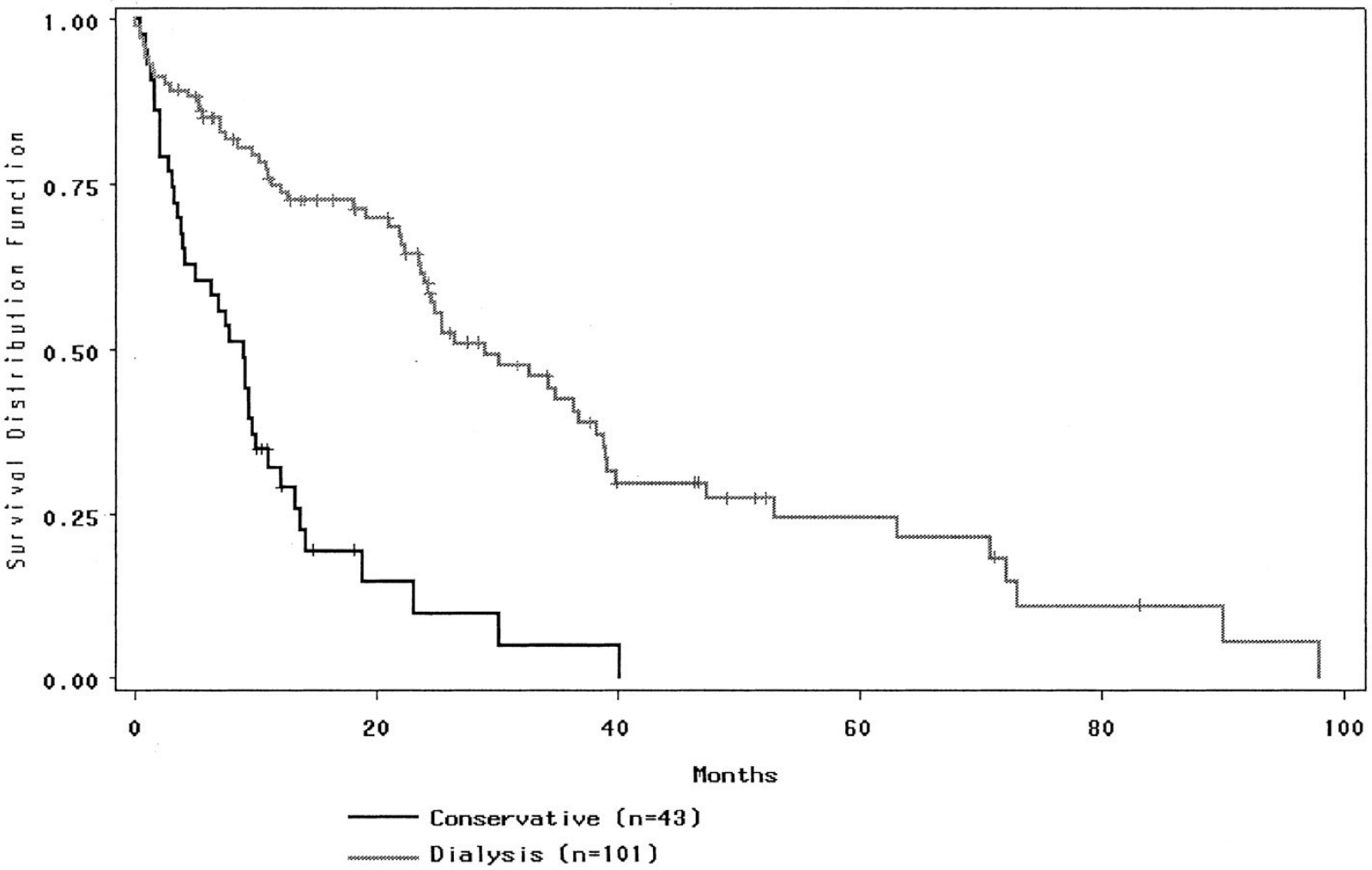

Died
Functional status decreased
Functional status maintained
Months since Initiation of Dialysis
3
6
9
12
0
20
40
60
80
100
Residents (%)


MDS–ADL score
Cumulative mortality
MDS–ADL Score
Cumulative Mortality (%)
Months since Initiation of Dialysis
10
11
12
13
14
15
16
17
18
19
20
70
60
50
40
30
20
10
0
–12
–9
–6
–3
0
3
6
9
12

Dialysis in community-dwellers

- 146 octagenarians w CrCl<10
- Single center cohort




1.00
0.75
0.50
0.25
0.00
Survival Distribution Function
0
20
40
60
80
100
Months
Conservative (n=43)
Dialysis (n=101)

Other Notes:

- Large gap in GOC conversations in dialysis
- High rate of patient regret in dialysis (Davidson, 2010)

My Practice Take-Aways:

- Start talks early
- Quality of life decline is significant and early
  - Especially in CNH
- Duration of life extended especially in well-selected patients

Case 3:

Ms. Octa Genarian is a ___ yo female who presents after a significant L-MCA stroke. She is dysarthric with right-sided hemiparesis with mild improvements in the first week of stay. She remains a high aspiration risk after 2 weeks of hospitalization.

Family wishes to discuss with you PEG tube placement.

". . . [B]ecause of its simplicity and low complication rate, this minimally invasive procedure also lends itself to over-utilization. Therefore, as percutaneous endoscopic gastrostomy enters its third decade, much of our effort in the future needs to be directed toward the ethical aspects associated with long-term enteral feeding. In addition to developing new procedures and devices, or to perfecting existing ones, we as physicians must continuously strive to demonstrate that our interventions truly benefit the patient."

-Dr Michael Gauderer, 2000

PEG tube in advanced dementia

- No mortality benefit (Cochrane Review 2009)
- No pressure ulcer benefit (Cochrane Review 2009, Teno et al 2012)
- No decrease in aspiration pneumonia (Peck et al 1990)
- Possible increase in all three of these outcomes (Yen-Feng Lee, 2021)
- Consensus among:
  - American Geriatrics Society
  - Alzheimer's Association
  - Academy of Nutrition and Dietetics
  - American Academy of Family Physicians

Thickened Liquids

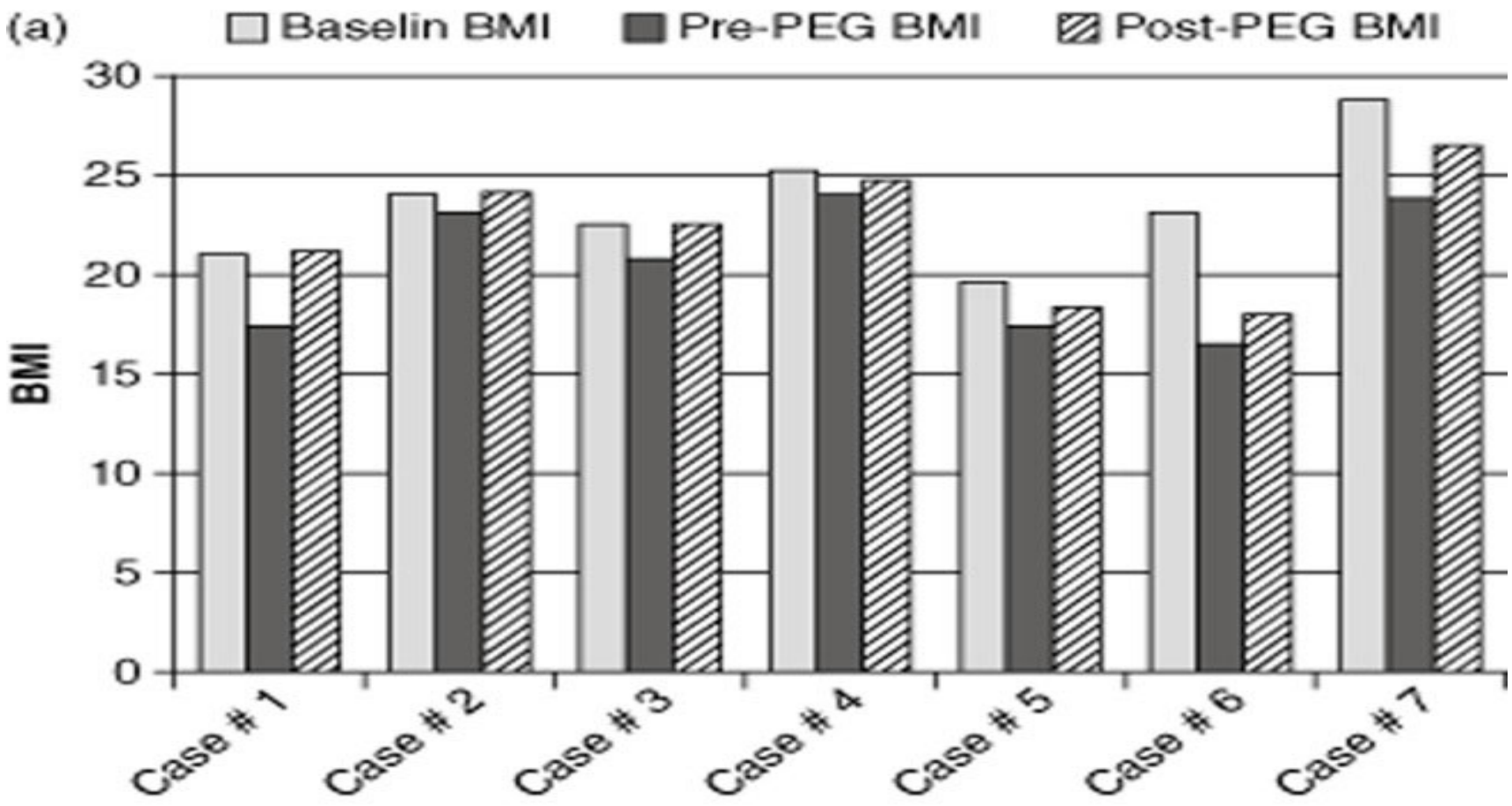
May 6, 2024

Thinning Evidence for Thickened Liquid Diets in Dementia and Dysphagia

Eric Widera, MD[1,2]

PEG tube with intact cognition

Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
92	93	86	88	72	81	89
Female	Male	Female	Male	Female	Male	Female
Caucasian	Caucasian	Caucasian	African American	Caucasian	Caucasian	Caucasian
Failure to thrive	Cardiac cachexia	Failure to thrive	Dysphagia	Tonsillar carcinoma	Failure to thrive	Failure to thrive
Severe reflux, esophageal strictures	DM type 2, severe ischemic cardiomyopathy (EF 30%)	Peptic ulcer disease, recurrent *Clostridium difficile* infection, chronic pain, DJD	HTN, BPH, Prostate cancer s/p androgen ablation	CAD s/p CABG, seizures, squamous cell cancer of tonsils s/p chemotherapy and radiation	Parkinson's disease, COPD, Reflux, BPH	HTN, dysphagia spine fractures, TIA, DJD


(a)
Baselin BMI
Pre-PEG BMI
Post-PEG BMI
BMI
30
25
20
15
10
5
0
Case # 1
Case # 2
Case # 3
Case # 4
Case # 5
Case # 6
Case # 7

PEG Tube Appropriateness

Age	Prognosis	Nutritional status	Dysphagia severity
0 = ≤ 59 1 = 60-74 2 = 75-89 3 = ≥ 90	0 = > 1 yr 1 = 6 m - 1 yr 2 = 3 m - 6 m 3 = < 3 m	0 = low risk 1 = medium risk 2 = high risk	0 = no dysphagia 1 = mild 2 = moderate 3 = severe
Anti-coagulated	**Recent infection**	**Anatomy**	**Comorbidities**
0 = no 1 = yes	0 = none 1 = required antibiotics in last 2 weeks	1 = obesity 1 = hiatus hernia 1 = previous abdominal surgery	Charlson Comorbidity Index = 24 maximum

Figure - Survival in patients referred for gastrostomy Placement, based on initial RFH-GRS

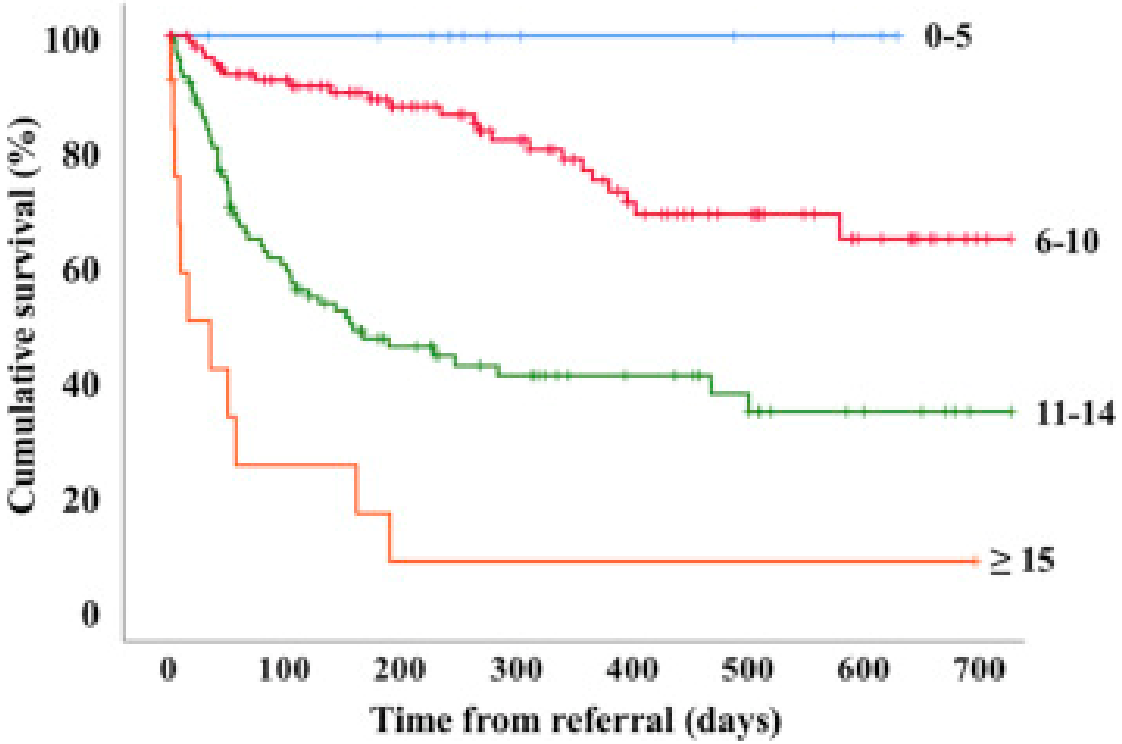


Table – Risk-benefit associated with gastrostomy placement

RFH-GRS	Gastrostomy indicated?	Risk	Decision details
0-5	Yes/No	Low	Decision depends on the indication
6-10	Yes	Medium	Patient likely to benefit
11-14	Yes	Medium-High	Benefits may outweigh risk
≥ 15	No	High	Benefits unlikely to outweigh risk

My Practice Take-Aways:

- **Clear no** for severe dementia
- Screen for acutely life-ending illness
- Risk stratify to assess benefit if cognitively intact
- Avoid plan of prolonged nasogastric feeds

“I’m ninety-three, and I’m feeling great. . . It shouldn’t surprise me if at this time next week I’m surrounded by family, gathered on short notice to help decide, after what’s happened, what’s to be done with me now”

-Roger Angell, *This old man: all in pieces*

“Imagine we liked, loved, respected, admired, and were inspired by all [those gray-, white-, and absent-haired people] and when they got older still and needed some elp from us, we offered them a world and a worldview that said: We still see you… both for who you were and for who you are, a person completing the full arc of a human life.”

-Louise Aronson, *Elderhood*

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