



Shared Decisions: An Interdisciplinary Approach to Surgery in Older Adults

Utah Commission on Aging Presentation

Carole Baraldi, MD

Care Coordination for Geriatric Surgery (COGS) Program, Salt Lake VAMC

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Educational Goals

- Understand the rationale for Geriatric Surgery programs
- Appreciate the correlation between frailty and increased surgical risk
- Understand how geriatric principles can impact surgical decision-making
- Future directions in Geriatric Surgery

The case for geriatric surgery programs

- 30% Medicare beneficiaries have surgery in last year of life¹
 - Increasing proportion of surgeries are older adults
- Of those who survive, many have functional decline/loss of independence after major surgery^{2,3}
- High costs to healthcare system: i.e delirium, prolonged stays, need for post-acute care
- Wide diversity of health states and goals
- Studies show there is room for improvement in aligning goals
- Geriatricians specialize in assessing function, identifying high-risk patients and in discussing patient goals

1. Kwok AC, Semel ME, Lipsitz SR, et al. The intensity and variation of surgical care at the end of life: a retrospective cohort study. [Lancet. 2011;378\(9800\):1408-1413.](#)

2. Robinson TN, Wu DS, Stieglmann GV, Moss M. Frailty predicts increased hospital and six-month healthcare cost following colorectal surgery in older adults. [Am J Surg. 2011;202\(5\):511-514.](#)

3. Farhat JS, Velanovich V, Falvo AJ, et al. Are the frail destined to fail? Frailty index as predictor of surgical morbidity and mortality in the elderly. [J Trauma Acute Care Surg. 2012;72\(6\):1526-1530.](#)

“This study shows that the burden of treatment, its outcomes, and the likelihood of the outcomes all influence the treatment preferences of older persons who are seriously ill.”

TABLE 2. TREATMENT PREFERENCES ACCORDING TO THE PRIMARY DIAGNOSIS.*

DIAGNOSIS	NO. OF PARTICIPANTS	SCENARIO 1 — LOW BURDEN, RESTORATION OF CURRENT HEALTH	SCENARIO 2 — HIGH BURDEN, RESTORATION OF CURRENT HEALTH	SCENARIO 3 — LOW BURDEN, FUNCTIONAL IMPAIRMENT	SCENARIO 4 — LOW BURDEN, COGNITIVE IMPAIRMENT
percent of participants choosing treatment					
Cancer	79	100	83.5	27.9	11.4
Congestive heart failure	66	98.5	93.9	21.2	7.6
Chronic obstructive pulmonary disease	81	97.5	86.4	25.9	13.6

*In each scenario, the likelihood of the outcome (restoration of current health or impairment) was 100 percent. Treatment preferences in each scenario did not differ significantly according to the diagnosis.

Which patients are at the highest risk?

- Many factors contribute to risk
- “Foot of the bed” assessments are not consistently accurate, especially in determining long-term outcomes ^{1,2}
- Multifactorial assessments are superior but time consuming ³⁻⁵
- Frailty has long been shown to be a significant individual predictor ⁶⁻⁷
- Variety of frailty tools shown to be accurate

1. Hi TB, et al. Heart Lung Circ. 2015;24(6):551-556.

2. George EL, et al. J Surg Res. 2020;248:38-44.

3. Afilalo J, et al. Circulation. 2017;135(21):2025-2027

4. Hurria A, et al. J Clin Oncol. 2011;29(25):3457-3465

5. Fried L, et al. The Journals of Gerontology: Series A, 2004; 59(3):M255-M263

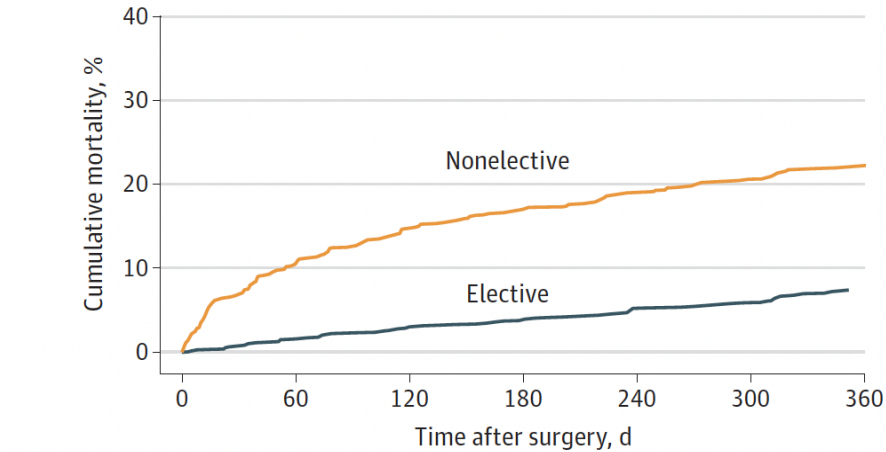
6. Gill TM et al. NEJM 2010;362(13):1173-1180

7. Guralnik JM et al. Am J Public Health. 1991;81(4):443-447

Frailty predicts mortality
(and morbidity)

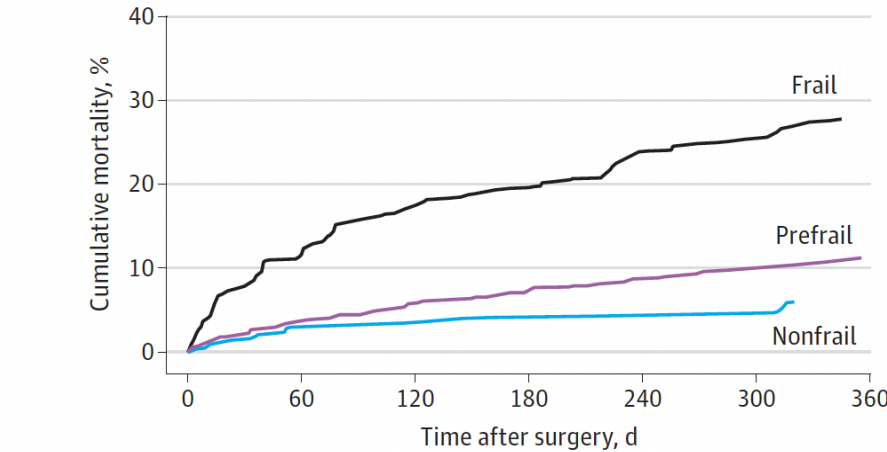
Figure 2. Cumulative Mortality Over 1 Year Following Major Surgery by Surgical and Geriatric Characteristics

A Surgical characteristic: nonelective vs elective



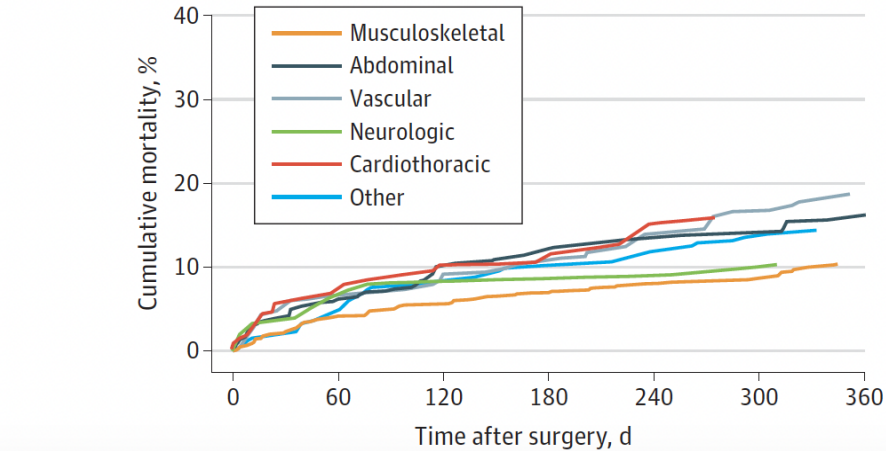
No. at risk							
Elective	661	645	632	624	616	608	596
Nonelective	532	463	442	424	411	401	390

B Geriatric characteristic: frailty phenotype



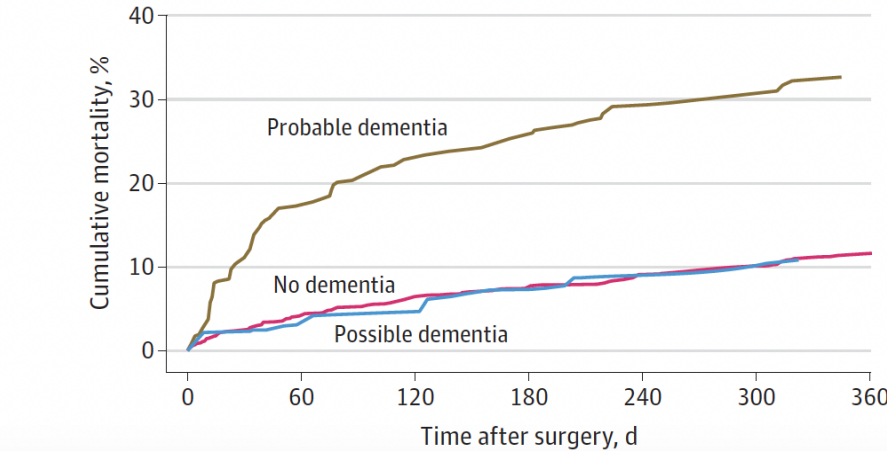
No. at risk							
Nonfrail	276	265	263	261	260	260	253
Prefrail	610	578	566	552	544	533	525
Frail	307	265	245	235	223	216	208

C Surgical characteristic: type of surgery



No. at risk							
Musculoskeletal	482	456	448	437	428	422	413

D Geriatric characteristic: dementia status



No. at risk							
No dementia	917	864	846	830	819	805	788

Risk Analysis Index (RAI)

Frailty Screen - Developed by surgeons at the VA

RAI predicts 30, 180 and 365-day mortality based on variables constitutive of frailty.

Validated both in and outside the VA setting in men and women.

10-minute questionnaire - health, nutrition, living situation, self-care assistance

Salt Lake City VA



Our Start - Surgical and Geriatric Champions

- **Higher than expected surgical mortality** -> high-risk patients
- National efforts to improve surgical safety
 - Collaborating/learning from others
 - Identifying our unique needs/resources
 - Embedded in clinics
 - Space & scheduling limitations

Our Program

- Full time team: RN coordinator and geriatrician
- Geriatrician and RN embedded in surgery clinics
- PT, nutrition, pharmacy, anesthesia as consultants

Our Patient Population

- High-risk older surgical patients
- Frailty screening tool: RAI

Goals - working with surgical colleagues

- Ensure Veterans' goals of care align with surgical intervention
- Optimize health and function prior to surgery

Aspirational goals

- Reduced surgical mortality
- Reduced ICU stays, readmissions, reduced discharge to SNF



Care-Coordination and Optimization in Geriatric Surgery: (COGS)



COGS Team:

Carole Baraldi, Medical Director

Tiffany Wassom, RN

G. Paul Eleazer, Geriatrician

Jake Holland, DPT

Tania Knight, RN, CAC

Gabrielle Scannell, Geriatrician

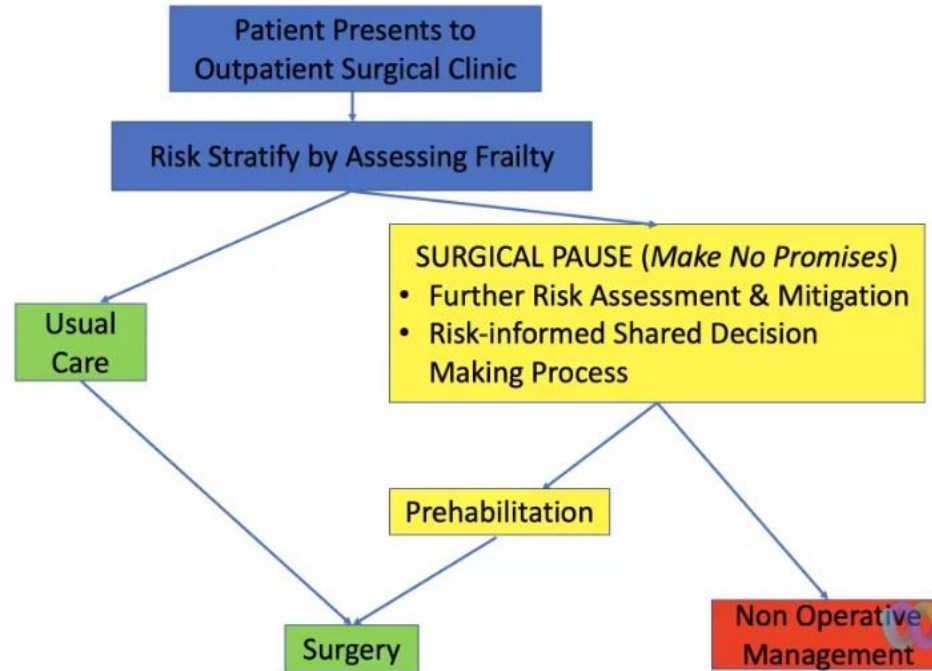
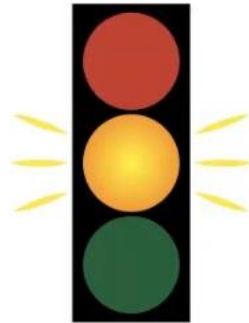
Michelle Mueller, Chief of Surgery

Rachelle Brenner, Geriatrician



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The Surgical Pause



Shared Decision Making

- Clarify patient's symptoms leading to surgical visit
- How does the patient view their overall health?
- Explore patient's understanding of procedure and options
- What are the patient's goals for the surgery?
- What Matters?
- Do goals align with what matters?
- Discuss risk and "bad stuff"
- Discussion option: Life expectancy in the context of goals
- Discussion option: "Best Case-Worst Case" scenario

What Matters

- What's a good life for you?
- What are your spiritual needs?
- Environment: Home/Hospital/SNF
- What do you consider burdensome care?
 - Dialysis = less time at home
 - Multiple pills or medication side effects
 - Transportation for care
- What interferes most with your wellbeing right now?
 - Pain or other symptoms
 - Limited physical activity
 - Cognitive or mood problems
 - Social determinants of health
- Do you have legacy work or a bucket list?
- Do you have legal or financial issues to settle?

The 4 Surgical Outcomes – Is there alignment?

1. Live Longer
 2. Improve Symptoms
 3. Prevent Disability
 4. Provide a Diagnosis
- Will surgery generate a valuable outcome for the patient?
 - You have to understand what is defined as valuable by the patient.

Have patient participate in the work of recognizing the relationship b/w goals and hazards

Box. Three Layers to the Bin of Bad Stuff

Expected Bad Stuff

Surgical: eg, pain, work of recovery

Functional: eg, scars, physical function

Possible Bad Stuff

Bumps in the road: eg, postoperative ileus, urinary retention, shoulder pain after laparoscopic surgery

Major changes: eg, chronic diarrhea, loss of independence

Reportable complications: eg, bleeding, infection, death

Wholly unanticipated events: eg, corneal abrasion, numbness from operative positioning

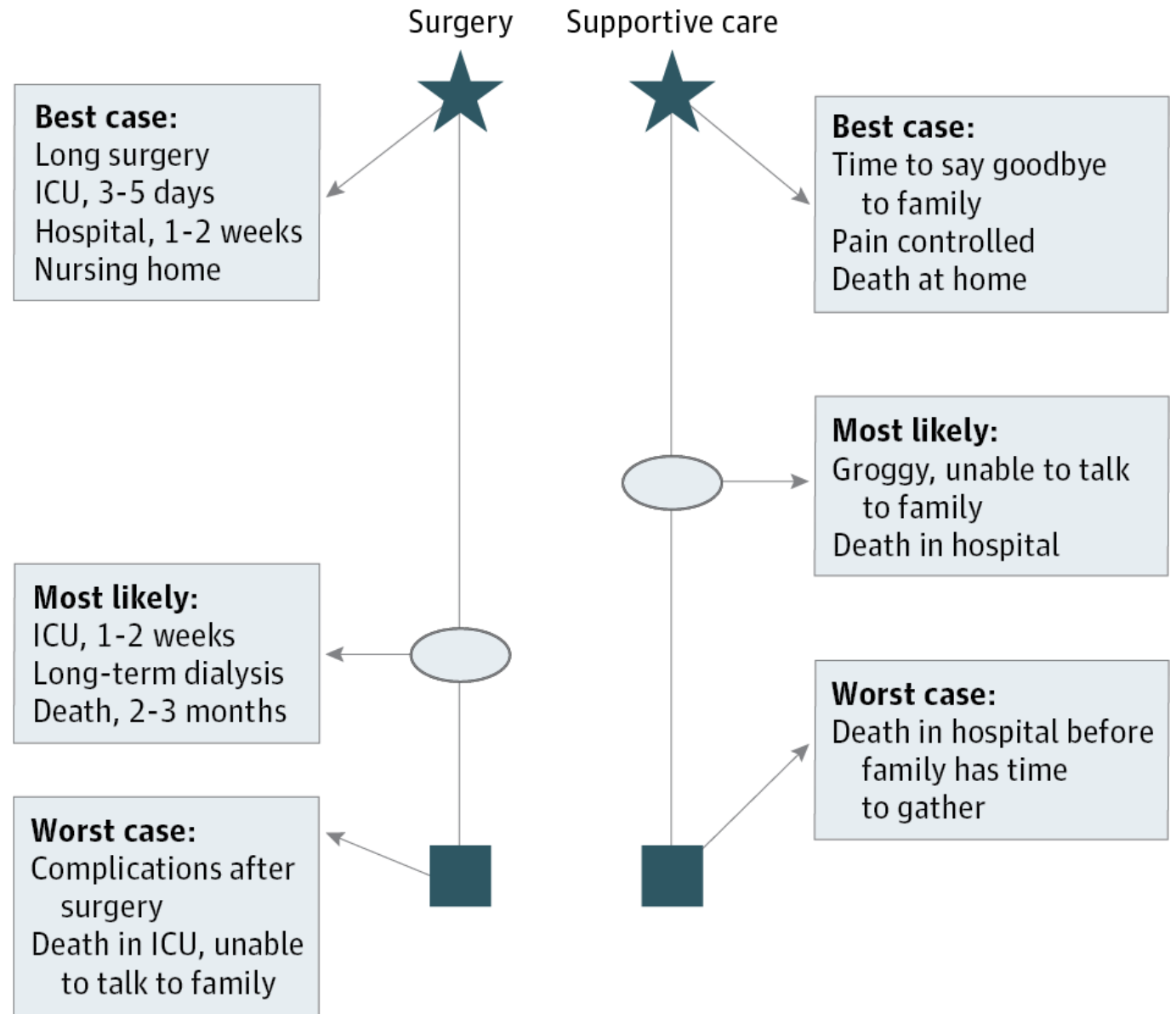
Falling Short of Our Goals

Examples: cancer recurs, back pain persists, bypass fails

Life Expectancy and Surgical Risk Calculators

- Life Expectancy (Context)
 - RAI score – 180 day
 - ePrognosis – gives predicted life expectancy
 - Others (Liver disease, ESRD)
- Surgical Risk – operative mortality, infection, readmission etc.
 - NSQIP – ***specific geriatric component*** adds functional decline, SNF stay, delirium risk, new mobility aid requirement
 - 30 day outcomes
 - These can exclude many meaningful and longer-term outcomes
- Limitation: can't predict what will happen to each individual

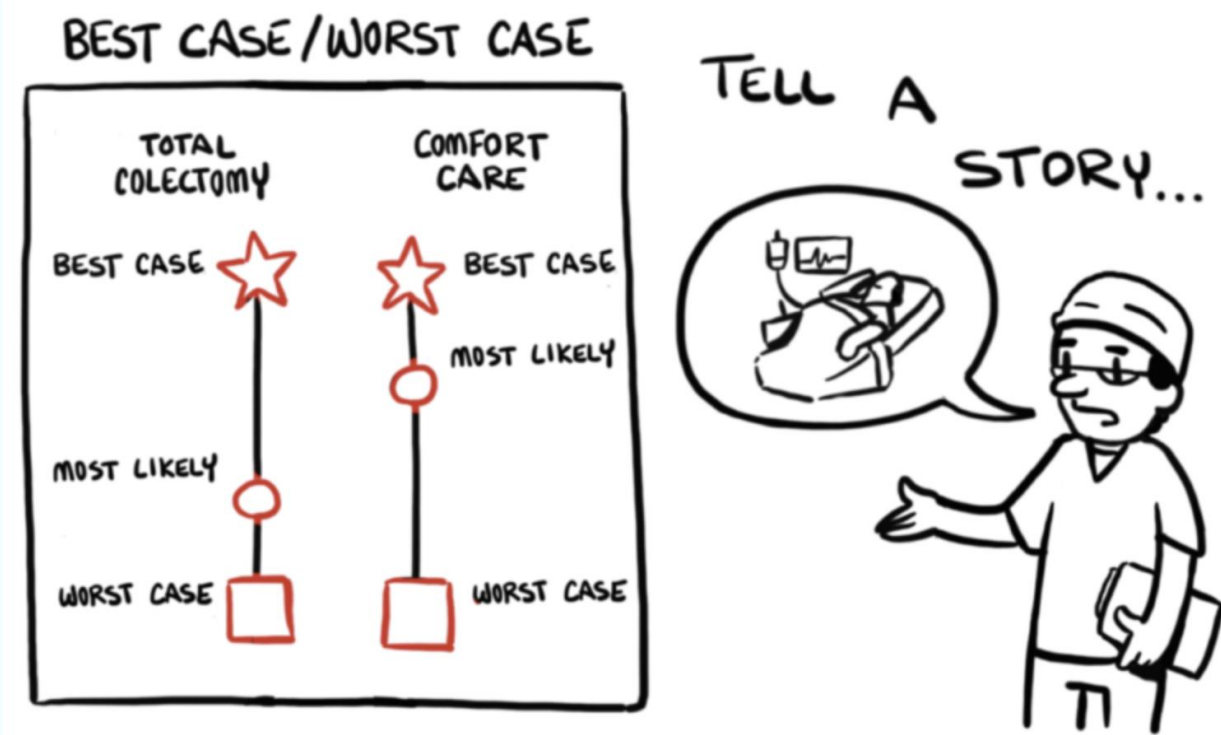
Best Case– Worst Case “Tell a Story”



<https://patientpreferences.org/>

The Patient Preferences Project

ABOUT US ▾ OUR INTERVENTIONS ▾ RESEARCH NEWS CONTACT US



BEST CASE WORST CASE

Screenshot



GET THE BEST CASE/WORST CASE TOOLKIT!

A free toolkit for Best Case/Worst Case is available from www.hipxchange.org

THIS TOOLKIT INCLUDES:

1. An instructional video
2. An instructor manual with learning objectives and lesson plans for teaching Best Case/Worst Case

Ideal outcome of COGS evaluation is patient-centered decision

- ER

- 82 yo renal cell cancer – incidental finding
- Robust
- Surgeon recommends no surgery d/t age



- IDT meeting

- BI

- 94 yo bladder cancer – hematuria
- Frail, Dementia, in AL setting
- Son feels QOL is good



- Adjusted surgery type

- BD

- 97 yo dissecting aortic aneurysm - pain
- Highly functional



- Had surgery

Care Coordination after COGS visit

- COGS team "Warm Handoff" to surgeons (not just note in chart)
 - Interdisciplinary discussions
 - Especially if patient leaning against surgery or wanting surgery when surgeons hesitant

Future Directions in Geriatric Surgery

- Local:
 - Data collection
 - Further formalization of high-risk interdisciplinary collaboration
- National/Healthcare Systems:
 - CMS Age Friendly Hospital Measure
 - ACS GSV
 - VA PAUSE Initiative





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