

# The older and frail patient: Risk, planning, and optimization -from the geriatrician's perspective

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# Case I – male with rectal cancer

- 69 years, home-dwelling
- Locally advanced rectal cancer
- Guidelines: Chemoradiotherapy followed by surgery
- After one week in hospital: refuses to get out of bed, pulls out i.v. lines, tries to hit the nurse, aggressive, angry
- What happened? Why?

# Outline

- Remaining life expectancy – differences fit and **frail**
- Geriatric Assessment – systematic tool for evaluating older patients
- Functional status – predictor and outcome
- Cognitive function – you need to assess!
- Case discussion with surgeon



# Patient, 96 years

“ .....you know, I am not  
80 years anymore.....”



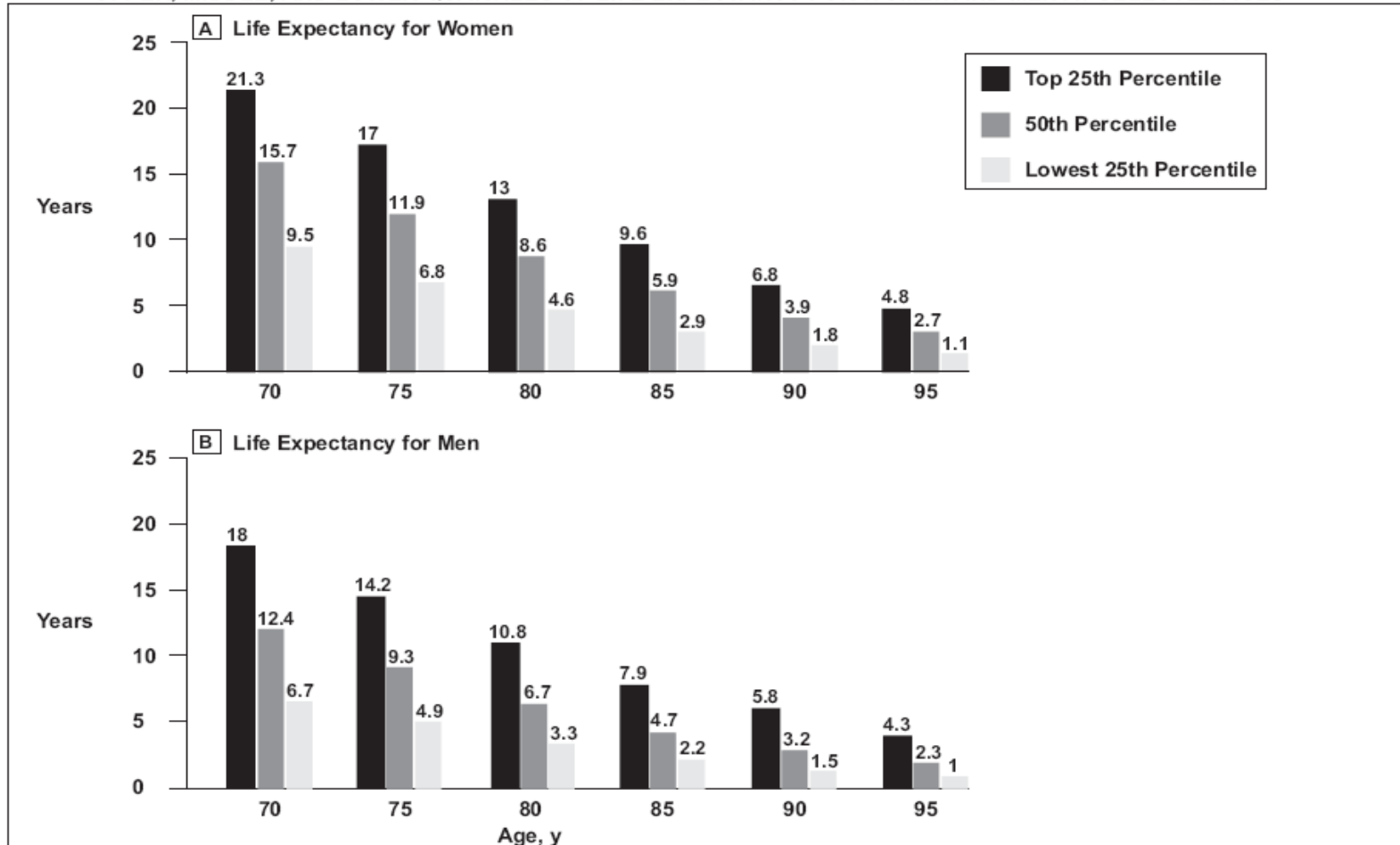
# Who is older?

- 10 years older than the treating physician
- Literature: varies from 65-75 years

# REMAINING LIFE EXPECTANCY

# Remaining life expectancy

UPPER, MIDDLE, AND LOWER QUANTILES OF LIFE EXPECTANCY FOR WOMEN AND MEN AT SELECTED AGES



Reprinted and adapted with permission from Walter LC, Covinsky KE. Cancer screening in elderly patients. JAMA 2001;285:2750-2756.

# GETTING OLDER....

- Multimorbidity
- Polypharmacy
- Functional disability (need of assistance in everyday life)
- Cognitive impairment or dementia
- Malnutrition
- Lack of social network
  
- Evidence-base is (almost) non-existing



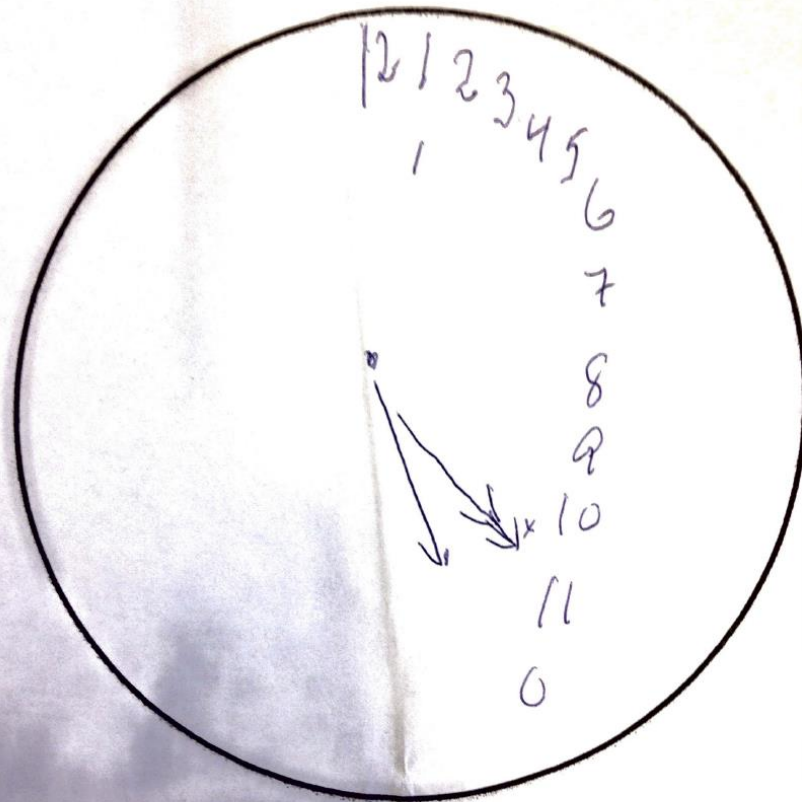
# Frailty

- Frailty is due to a multisystem reduction of reserve capacity
- Frail patients are **vulnerable** to adverse events
  - Complications
  - Death
  - Functional decline
- Age is related to frailty, but most 85 year olds are not frail

# Frailty

- Does not mean disqualification for further care
- **Entry point** for adapted care
- Potentially reversible
- Why is the patient frail?

# Older patient screened for frailty



- Slow walking speed (4 meters)
- Needs help getting dressed
- Fallen 3 times last 6 months
- Weight loss last 6 months

# Categorizing patients

Geriatric  
assessment



```
graph TD; A[Geriatric assessment] --> B[Fit]; A --> C[Intermediate]; A --> D[Frail];
```

Fit

Intermediate

Frail

# Geriatric assessment (GA)<sup>1</sup>

- **Functional status**
  - Comorbidity
  - Polypharmacy
  - **Cognitive function/  
dementia**
  - Nutritional status
  - Depression/anxiety
  - Social support
- Remaining life expectancy  
Detection of unidentified problems  
Optimization before treatment  
Prediction of adverse outcomes  
Treatment planning  
Baseline information
- FRAILITY**

<sup>1</sup>Wildiers et al, JCO, 2014

# SEVERE POST-OPERATIVE COMPLICATIONS AND FRAILITY

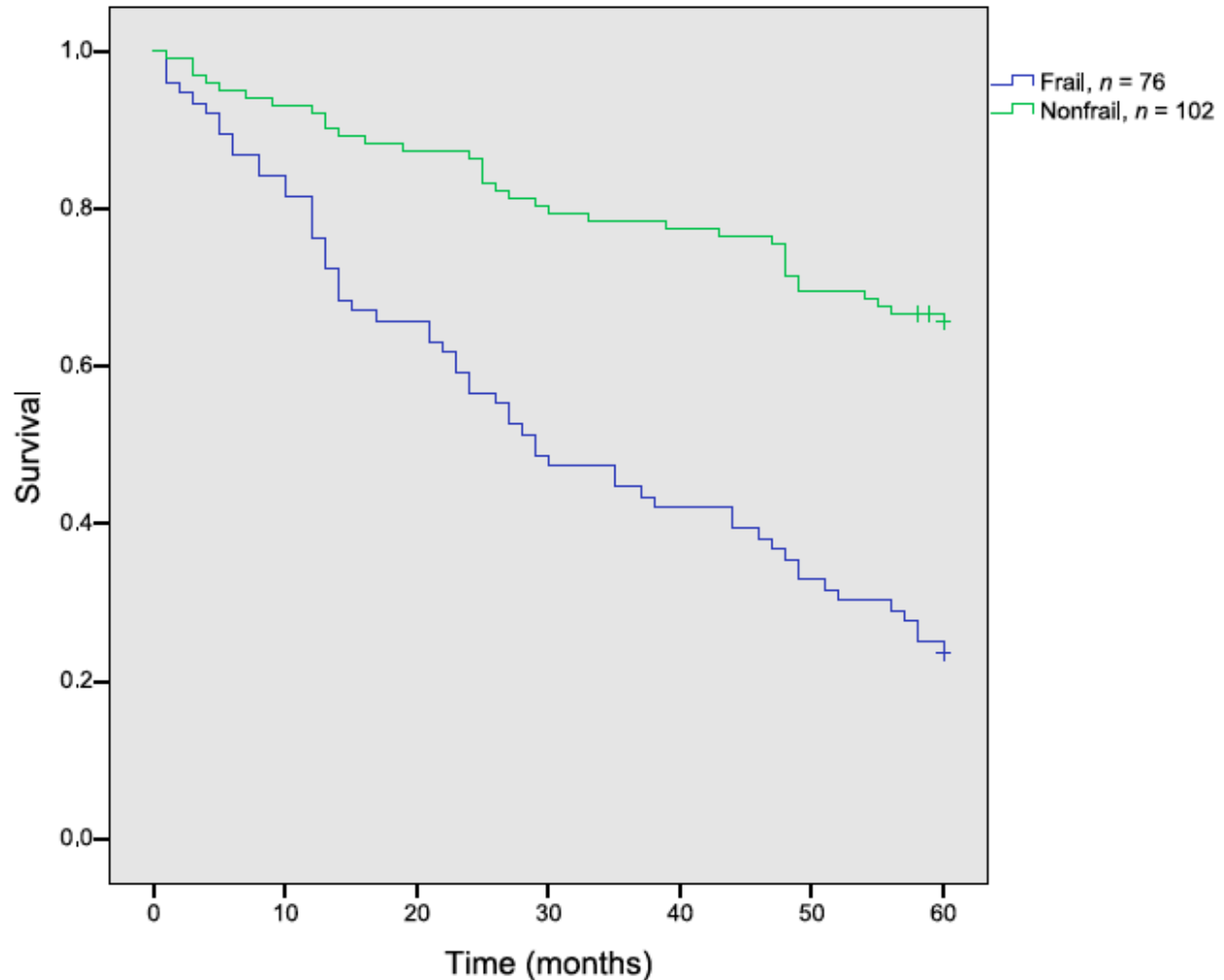
	FIT	Intermediate	FRAIL	Total
Severe complications	7 (33%)	29 (36%)	47 (62%)	83 (47%)
No/mild complications	14 (67%)	52 (64%)	29 (38%)	95 (53%)
Total	21	81	76	178

p=0.002

Kristjansson SR,  
CROH 2009

# 5-year survival by frailty status

- 178 patients over 70 y with CRC



Ommundsen et al, The Oncologist, 2014

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# Summary of literature - CRC

- Frailty consistently predicts complications and survival (regardless of frailty assessment)
- Age less important
- Include frail patients in future clinical trials

Handforth et al, Sandini et al, Noor et al

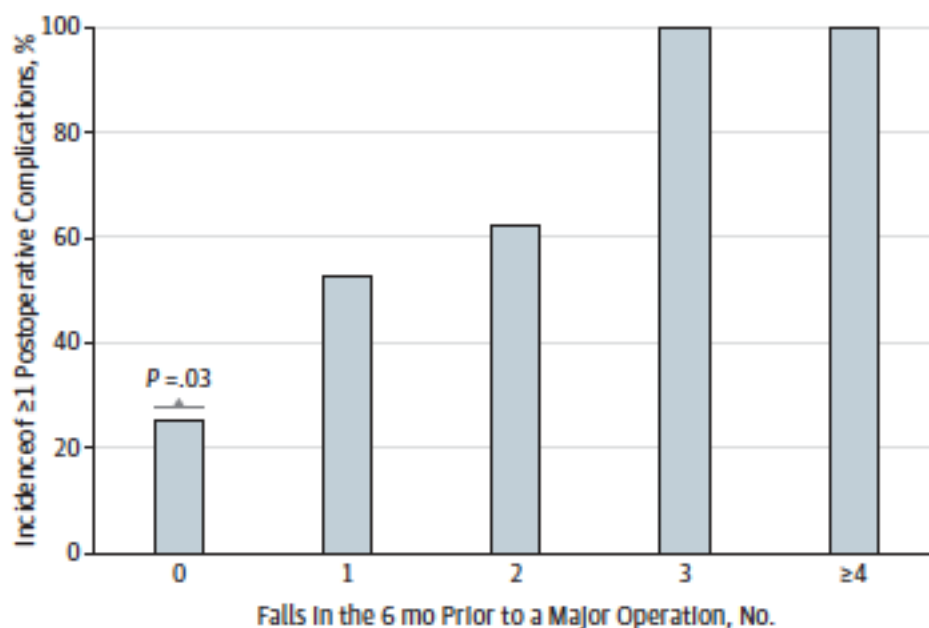


# **SCREENING FOR FRAILTY IN GERIATRIC ONCOLOGY**

# Relationship Between Asking an Older Adult About Falls and Surgical Outcomes

Teresa S. Jones, MD; Christina L. Dunn, BA; Daniel S. Wu, MD; Joseph C. Cleveland Jr, MD; Deidre Kile, MS; Thomas N. Robinson, MD, MS

Figure 2. Prior Falls and Postoperative Complications in Colorectal Operations



# 4 meter gait speed

- Slower than 0.8 m/s
  - SLOW WALKER – poor outcomes
  - ECOG is not enough
  - How to evaluate in clinical practice?

# How fast does the Grim Reaper walk? Receiver operating characteristics curve analysis in healthy men aged 70 and over



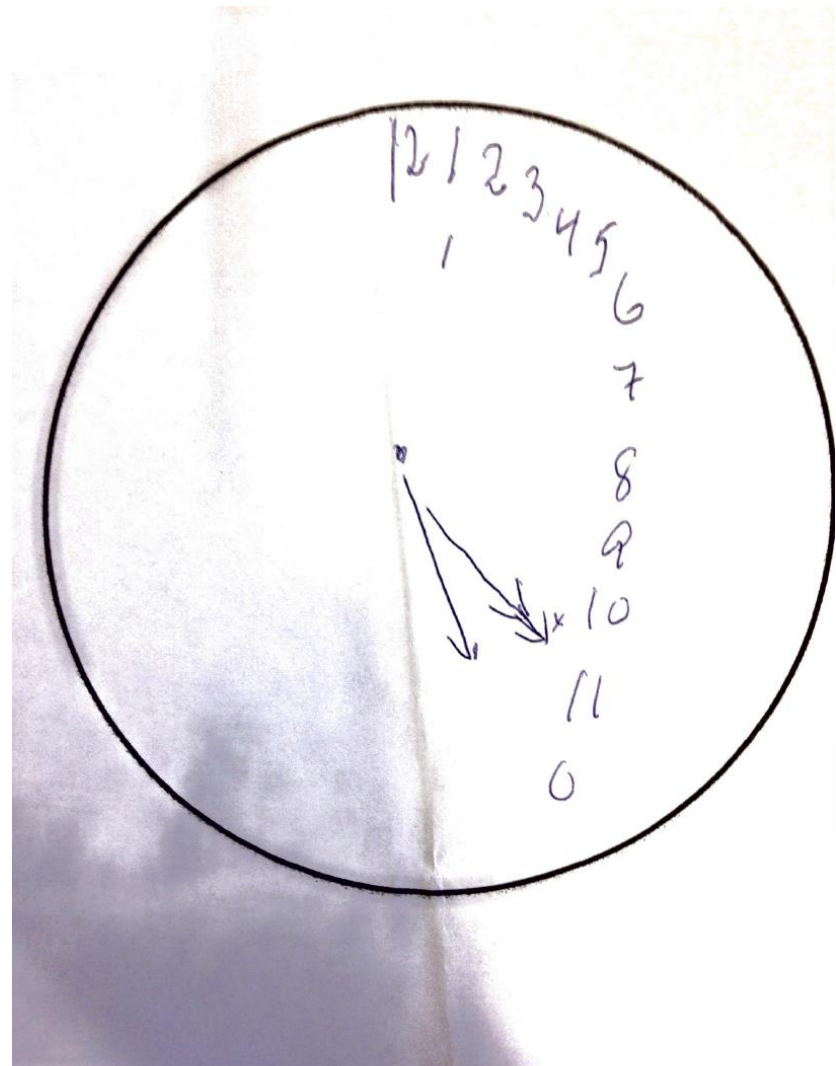
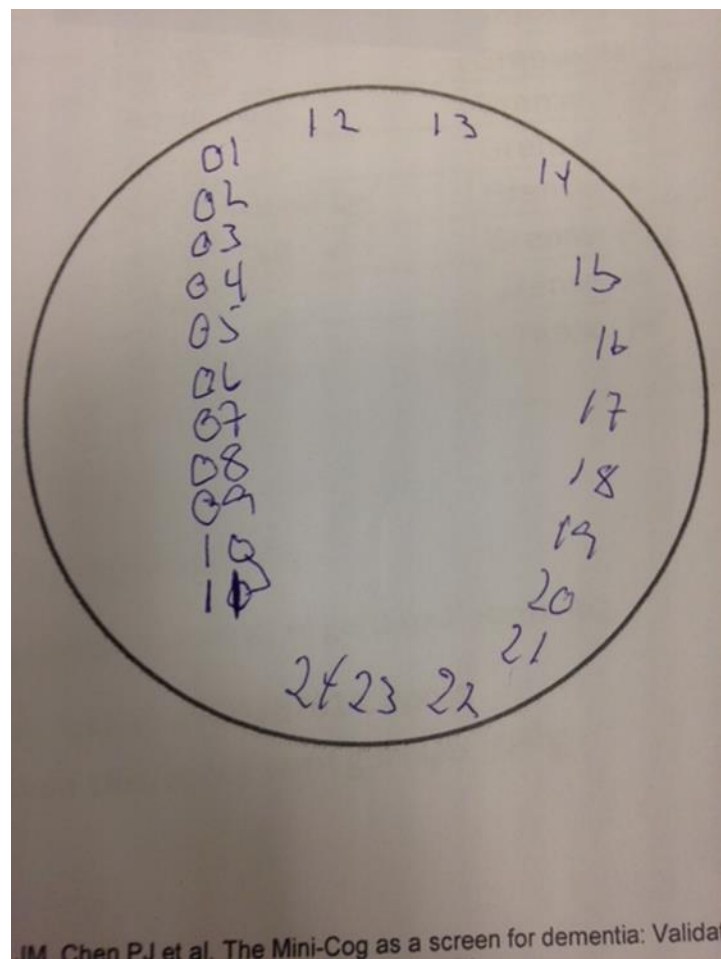
Grim reaper's maximum speed: 1.36 m/s

Stanaway, BMJ, 2011

# Three questions

- Do you have trouble getting out of a chair or out of bed?
- Is getting dressed difficult for you?
- Do you need help taking a bath or shower?

# Cognitive function



Chan JM, Chen PJ et al. The Mini-Cog as a screen for dementia: Validation in a community sample. J Am Geriatr Soc 2003;51:100-105.

Chan JM, Chen PJ et al. The Mini-Cog as a screen for dementia: Validation in a community sample. J Am Geriatr Soc 2003;51:100-105.

ID: \_\_\_\_\_ Date: \_\_\_\_\_

**Step 1: Three Word Registration**

Look directly at person and say, "Please listen carefully. I am going to say three words that I want you to repeat back to me now and try to remember. The words are [select a list of words from the versions below]. Please say them for me now." If the person is unable to repeat the words after three attempts, move on to Step 2 (clock drawing).

The following and other word lists have been used in one or more clinical studies.<sup>13</sup> For repeated administrations, use of an alternative word list is recommended.

Version 1	Version 2	Version 3	Version 4	Version 5	Version 6
Banana	Leader	Village	River	Captain	Daughter
Sunrise	Season	Kitchen	Nation	Garden	Heaven
Chair	Table	Baby	Finger	Picture	Mountain

**Step 2: Clock Drawing**

Say: "Next, I want you to draw a clock for me. First, put in all of the numbers where they go." When that is completed, say: "Now, set the hands to 10 past 11."

Use preprinted circle (see next page) for this exercise. Repeat instructions as needed as this is not a memory test. Move to Step 3 if the clock is not complete within three minutes.

**Step 3: Three Word Recall**

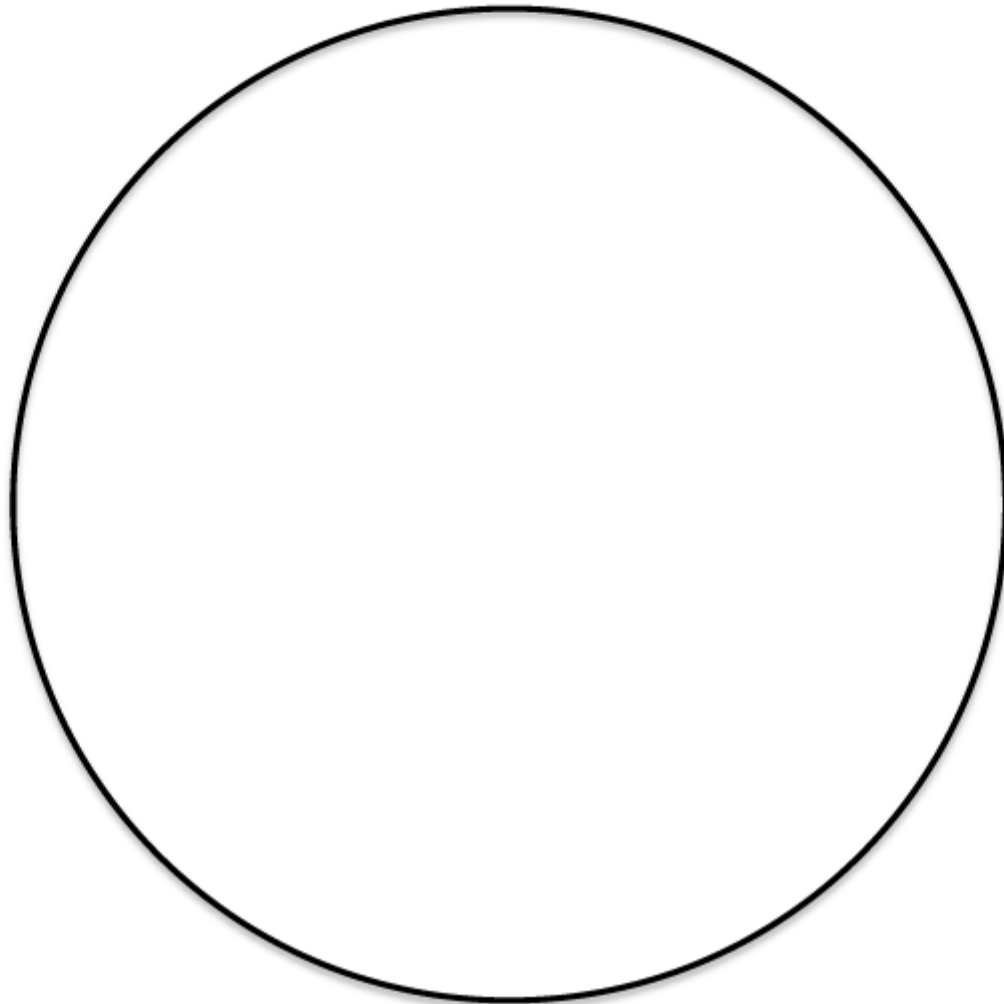
Ask the person to recall the three words you stated in Step 1. Say: "What were the three words I asked you to remember?" Record the word list version number and the person's answers below.

Word List Version: \_\_\_\_\_ Person's Answers: \_\_\_\_\_

**Scoring**

Word Recall: _____ (0-3 points)	1 point for each word spontaneously recalled without cueing.
Clock Draw: _____ (0 or 2 points)	Normal clock = 2 points. A normal clock has all numbers placed in the correct sequence and approximately correct position (e.g., 12, 3, 6 and 9 are in anchor positions) with no missing or duplicate numbers. Hands are pointing to the 11 and 2 (11:10). Hand length is not scored. Inability or refusal to draw a clock (abnormal) = 0 points.
Total Score: _____ (0-5 points)	Total score = Word Recall score + Clock Draw score. A cut point of <3 on the Mini-Cog™ has been validated for dementia screening, but many individuals with clinically meaningful cognitive impairment will score higher. When greater sensitivity is desired, a cut point of <4 is recommended as it may indicate a need for further evaluation of cognitive status.

ID: \_\_\_\_\_ Dato: \_\_\_\_\_





# Clinical warning signs

- The spouse/children answer all the questions
- The patient is not sure why he/she ended up in your office
- The patient keeps asking the same questions
- You get a feeling that your information does not get through



# Why is cognition so important for surgeons?

- Ability to consent?
- Involve caregivers in decision-making?
- Baseline before surgery
- Risk of delirium – can be prevented/information
- Follow-up must be tailored – remember info?
- Cognitive impairment is a negative prognostic factor

Larsen. Acta Anaesthesiol Scand. 2019;63:1095–1096

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# Evaluation of cognitive impairment

- Brief encounter – patient appears lucid and oriented
- Objective testing necessary
  - Screening – MiniCog
  - More detailed test: Mini Mental State Examination (MMSE) or Montreal Cognitive assessment
- Talk to caregiver perhaps most important  
Changes over time? How was she 10 years ago?

# Delirium

- Hyperactive and hypoactive (patient falls asleep when you talk to him)
- Fluctuates
- Look for and treat underlying pathology (anemia, infection etc). CT caput often indicated.
- Glasses and hearing aid available
- Don't move the patient around too much
- Avoid sedative drugs if possible!
- Call your geriatrician (polypharmacy, advice)

# **FRAILTY – CORRECTIVE MEASURES (=PREHABILITATION)**

# Points to consider

- Assess patient's goals and priorities (what lies ahead?)
- Survival? Remaining independent? Avoid symptoms?
  
- What can be optimised? (prehab – be realistic not nihilistic)
- Treatment trajectory can (always) be optimised
- *Reconsider treatment strategy* – alternatives?

# Conclusions

- Older patients are heterogeneous
- Frailty describes **the vulnerable subset** of the older population
- Easily missed with standard approach (function)
- Frailty: **Entry point** for adapted care
- Look for cognitive impairment

# Case: Female in her early seventies

- Rectal carcinoma, 8-10 cm, T4aN0, suspect locally advanced
- Planned for surgery and stoma (too vulnerable for primary anastomosis)
- Appears frail, referred for prehabilitation



# Outpatient Geriatric Assessment

- Resided in a nursing home for the last 4 weeks, usually lives with spouse
- Dependent in ADL (17/20 Barthel) and iADL (30/66 NEADL) – cannot shower, shop, drive
- Comorbidity:
  - COPD (few admissions) – heavy smoker
  - Hypertension
  - Ca vesica, TURB performed more than 10 years ago
  - Excessive alcohol use (also spouse)

# Comorbidity continued

- Depression and anxiety, suicide attempt
- DVT
- Stroke (minor), large vessel disease
- Ca mammae – triple negative, suspected relapse now (didn't show for follow-up)
- Fall and ankle fracture (reason for nursing home)

# Geriatric assessment

- Gait speed 0.5 m/s
- SPPB 6/12 (4+2+0) Short physical performance battery
- Fall last 6 months: 1
- Grip strength 12.5 kg
- MMSE: 28/30 Mini mental state examination
- Nutrition: MNA 12.5/30. Weight 52 kg. Weight loss 15 kg in 2 years Mini nutritional assessment
- Frailty index: 0.45 (severe frailty)

# Basic geriatric principles for colorectal surgeons: How to optimize assessment and care of the elderly in the perioperative period

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Geriatric conditions and principles	Relevance to colorectal cancer surgery
Cognitive impairment	Capacity to consent Risk of non-compliance Patient preferences more challenging to assess Increased risk of postoperative delirium Risk of long-term cognitive decline?
Frailty	Increased risk of complications and mortality Competing risk – frailty may limit life-expectancy irrespective of cancer/cancer treatment Surgery may cause long-term dependency Readmission risk higher
Functional impairment, dependency	Increased risk of complications Increased length of stay – discharge planning essential Surgery may cause long-term dependency
Multimorbidity and polypharmacy	Possibility for preoperative optimization? Increased risk of complications Competing risk – serious comorbidity may limit life-expectancy irrespective of cancer/cancer treatment
Atypical presentation of complications	Delirium Falls Incontinence Look for underlying causes such as infection or electrolyte disturbances
Ethical issues	Patient preferences Benefit versus harm Time to benefit versus life expectancy Alternative procedures? End-of-life decisions
Limited evidence-base	Discuss at MDT meeting Include patient preferences Avoid undertreatment Avoid overtreatment