



Why do we need Comprehensive Geriatric Assessment in cancer care?

Siri Rostoft, senior consultant geriatrician, PhD
Oslo University Hospital, Norway
Frailty and Cancer research group
University of Oslo
srostoft@gmail.com



BUS OncoGeriatrics 2019

**NO CONFLICTS OF INTEREST TO
DECLARE**



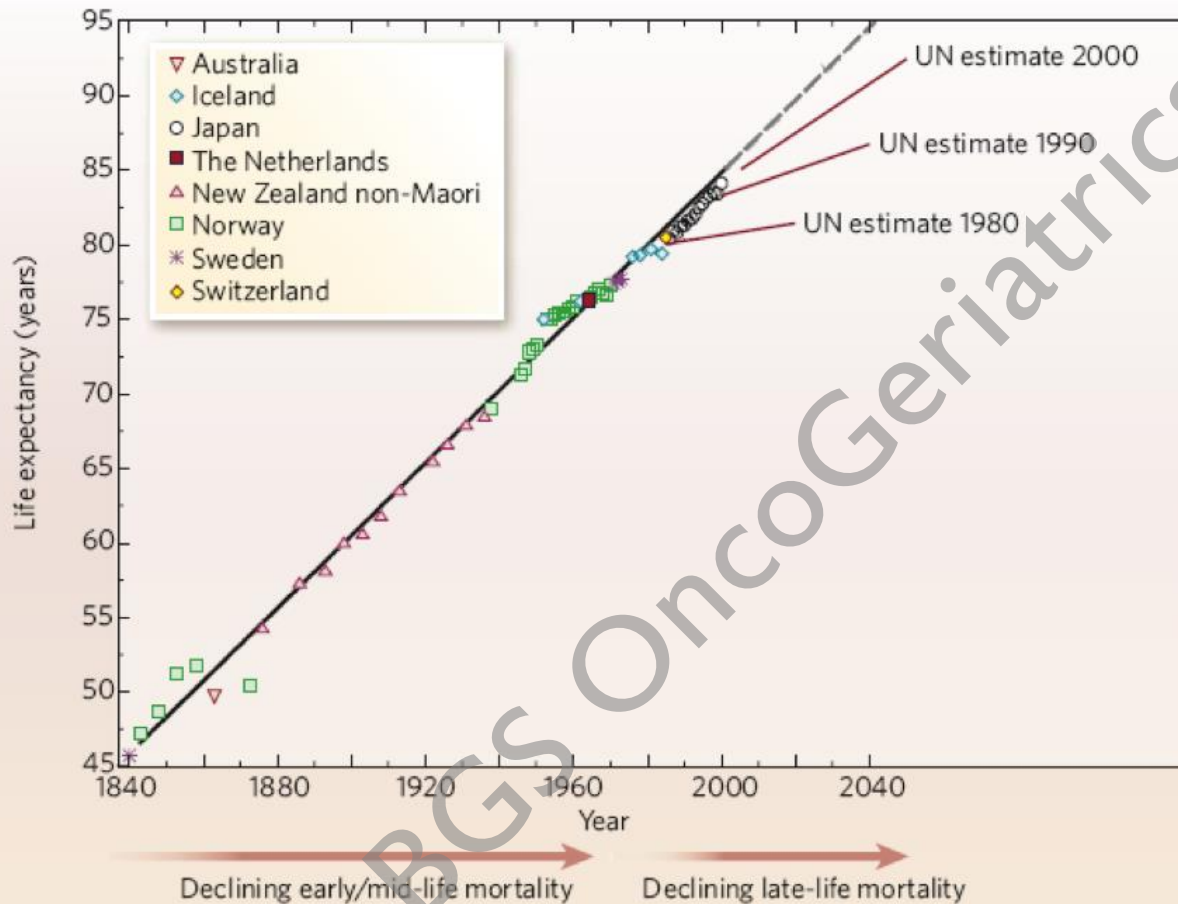
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Patient, 96 years

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

Life expectancy increases



- UK: Life expectancy increases at the rate of 5 hours per day¹
- Why declining late-life mortality?

Case – male with rectal cancer

- 69 years old, home dwelling
- Locally advanced rectal cancer
- Admitted for preoperative chemoradiotherapy according to guidelines
- After a week non-cooperative, pulled out i.v. lines, completely bed-ridden, aggressive
- How was his premorbid *functional status*?

OUTLINE

- Heterogeneity in the older population
- Old and frail – lack of evidence
- Answer: Comprehensive Geriatric Assessment
- Functional status and cognition

Challenges when patient age increases

- Heterogeneity – differences in remaining life expectancy¹
- Chronological age not sufficient
- Comorbidity, functional decline, dementia
- Evidence-based data are scarce, guidelines have limited value²
- Other endpoints than survival: independence, cognitive function³

¹Walter, JAMA, 2001; ²Hubbard, Biogerontology, 2010;

³Fried, NEJM, 2002

Patient preferences

- 226 patients over 60 y with serious illness
- Asked about treatment preferences (without treatment the disease would lead to death)
- 89% wanted burdensome treatment if health was improved/remained unchanged
- Treatment improved survival, but lead to severe
 - functional decline: 74% would say no
 - cognitive impairment: 89% would say no
- These outcomes were more important than survival

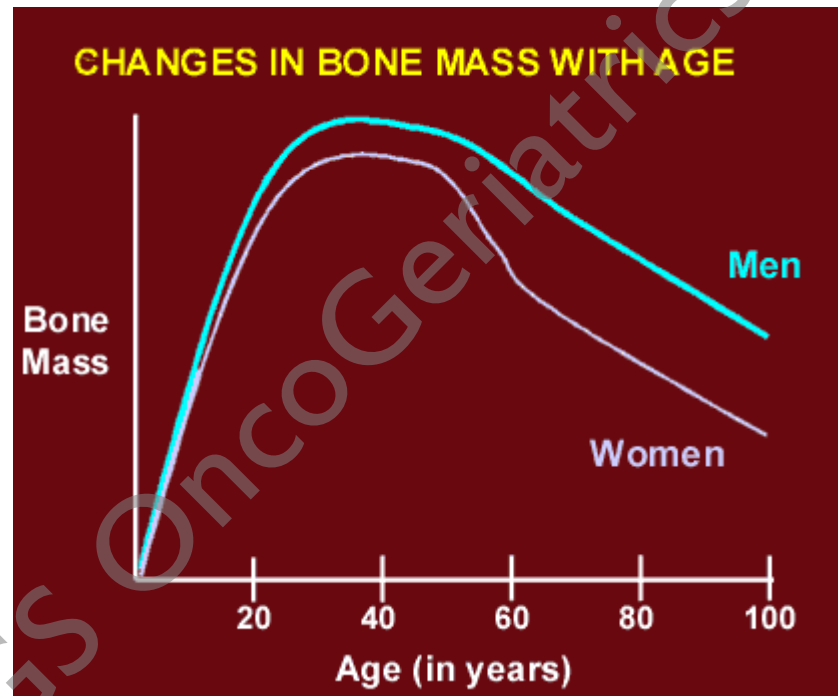
Guidelines and older patients¹

- 79 year old woman
- Osteoporosis, arthrosis, diabetes, asthma, and hypertension (all moderately severe)
- Follow the guidelines for the five conditions:
 - **12 medications daily** (19 doses per day, intake 5 x daily)
 - **14 non-pharmacological interventions suggested** (diet, exercise)
 - **Doctor visits 2-4 times a year**
 - Follow all the guidelines: disagreement between medications and training recommendations



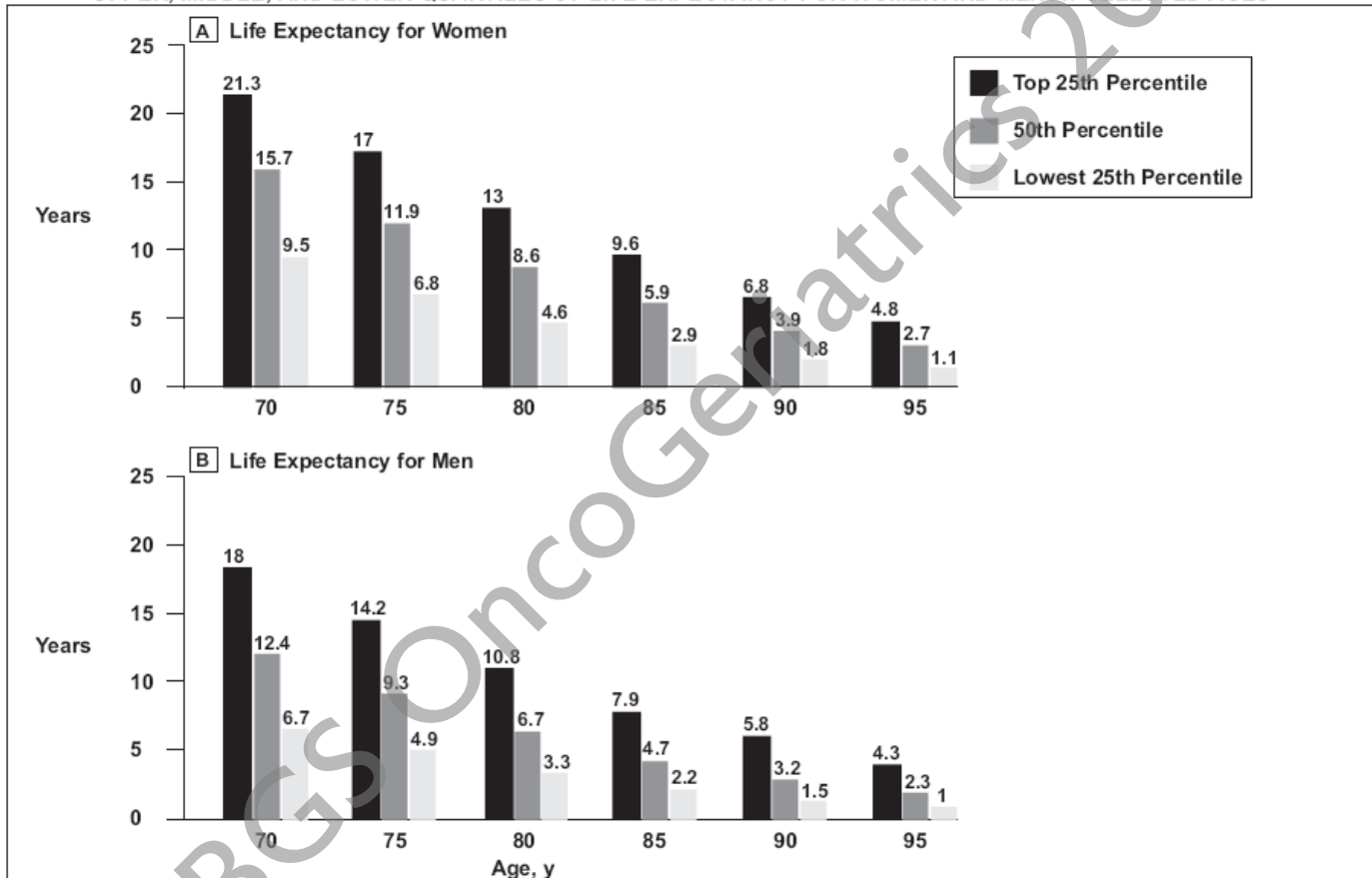
“After age 30, it is all downhill”

RA Marottoli, 2011



Heterogeneity

UPPER, MIDDLE, AND LOWER QUARTILES 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.



Categorizing patients

Geriatric
assessment

Fit

Intermediate

Frail



Geriatric Assessment (GA)¹

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



Optimal management of elderly cancer patients: usefulness of the Comprehensive Geriatric Assessment

Philippe Caillet^{1,2}

Marie Laurent^{1,2}

Sylvie Bastuji-Garin^{1,3,4}

Evelyne Liuu²

Stephane Culine⁵

Jean-Leon Lagrange⁶

Florence Canoui-Poitrine^{1,2,3,*}

Elena Paillaud^{1,2,*}

Clinical Interventions in Aging 2014;9 1645–1660



Results

- Each CGA domain was associated with chemotoxicity and survival in at least one study
- The domains most often predicting mortality and chemotoxicity:
 - functional impairment
 - malnutrition
 - comorbidities





Contents lists available at ScienceDirect

Journal of Geriatric Oncology



The effect of a geriatric evaluation on treatment decisions and outcome for older cancer patients – A systematic review



Marije E. Hamaker ^{a,*}, Marthe te Molder ^b, Noortje Thielen ^b, Barbara C. van Munster ^c,
Anandi H. Schiphorst ^d, Lieke H. van Huis ^b

^a Department of Geriatric Medicine, Diaconessenhuis Utrecht, The Netherlands

^b Department of Internal Medicine, Diaconessenhuis Utrecht, The Netherlands

^c Department of Geriatric Medicine, Geïre Ziekenhuis, Apeldoorn, The Netherlands

^d Department of Surgery, Diaconessenhuis Utrecht, The Netherlands



Methods and results

- 36 studies included in the review
- Change in oncologic treatment:
 - the initial treatment plan modified in 28% (8-54%) of *patients* after geriatric evaluation
 - primarily to less intensive treatment
- Implementation of non-oncologic interventions
 - interventions were suggested in 72% of patients
 - most frequently social issues, nutrition and polypharmacy



Effect on treatment outcome

- Varying
- Trend towards positive effect on
 - treatment completion (75% of studies)
 - treatment-related toxicity/complications (53% of studies)

Time to Stop Saying Geriatric Assessment Is Too Time Consuming

Marije E. Hamaker, *Diakonessenhuis, Utrecht, the Netherlands*
 Tanya M. Wildes, *Washington University School of Medicine, St Louis, MO*
 Siri Rostoft, *Oslo University Hospital and University of Oslo, Oslo, Norway*

Table 1. Comparative Cost of Nurse's Salary Compared With That of Other Diagnostic Instruments Used in Oncologic Workup

Diagnostic Instrument	Cost (\$)
Nurse's salary for 1 hour*	28
Complete blood count	17
Carcinoembryonic antigen	50
Chest x-ray	67
Bilateral screening mammography	321
Abdominal or chest CT scan	640
MRI pelvis	739
Liver biopsy	879
Whole-body PET-CT	1,788
Colonoscopy with biopsy	2,187
Breast cancer genomic testing (Oncotype)‡	3,416
Liquid biopsy (Guardant360§)	5,800



Evidence GA

- GA uncovers problems even if ECOG 0-1
- GA predicts toxicity, complications , and survival
- GA changes the treatment in 28% of cases, mostly to less aggressive
- New relevant problems detected in 72%
- GA is superior to oncologists' clinical judgment in identifying frailty

Repetto, JCO 2002, Extermann, JCO 1998, Hurria JCO 2011 og 2016, Soubeyran, JCO 2012, Hamaker , JGO 2018, Kirkhus, BJS 2017



A FEW WORDS ABOUT FUNCTIONAL STATUS



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“She Was Probably Able to Ambulate, but I’m Not Sure”

- Failure to assess functional status in hospitalized patients is the norm
- Basic: ADL-function, mobility, and cognition
- 1/3 of patients 70+ encounter hospitalization-associated disability (even when acute illness is effectively treated)

How to measure functional status

ADL = activities of daily living

-survive (eat, go to the toilet, move from bed to chair)

IADL = instrumental ADL

-live independently (manage money, shop, medication use)

Performance measures: Gait speed, TUG (timed up and go test), grip strength

Ask about falls

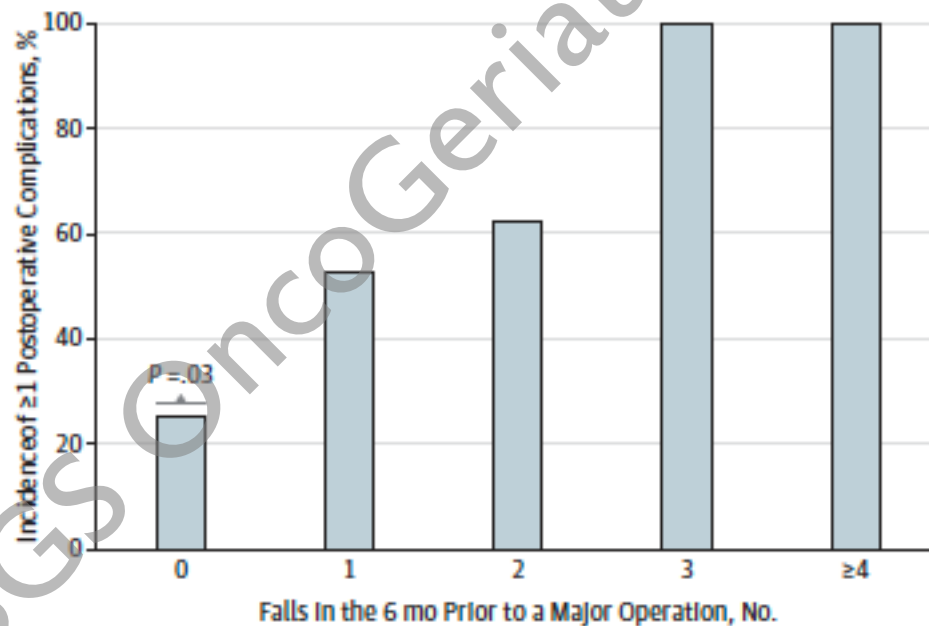
Look at the patient – ambulation skills, handgrip

Document what you see

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



BGS OncoGeriatrics 2019

COGNITIVE FUNCTION



Clinical warning signs

- The wife/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

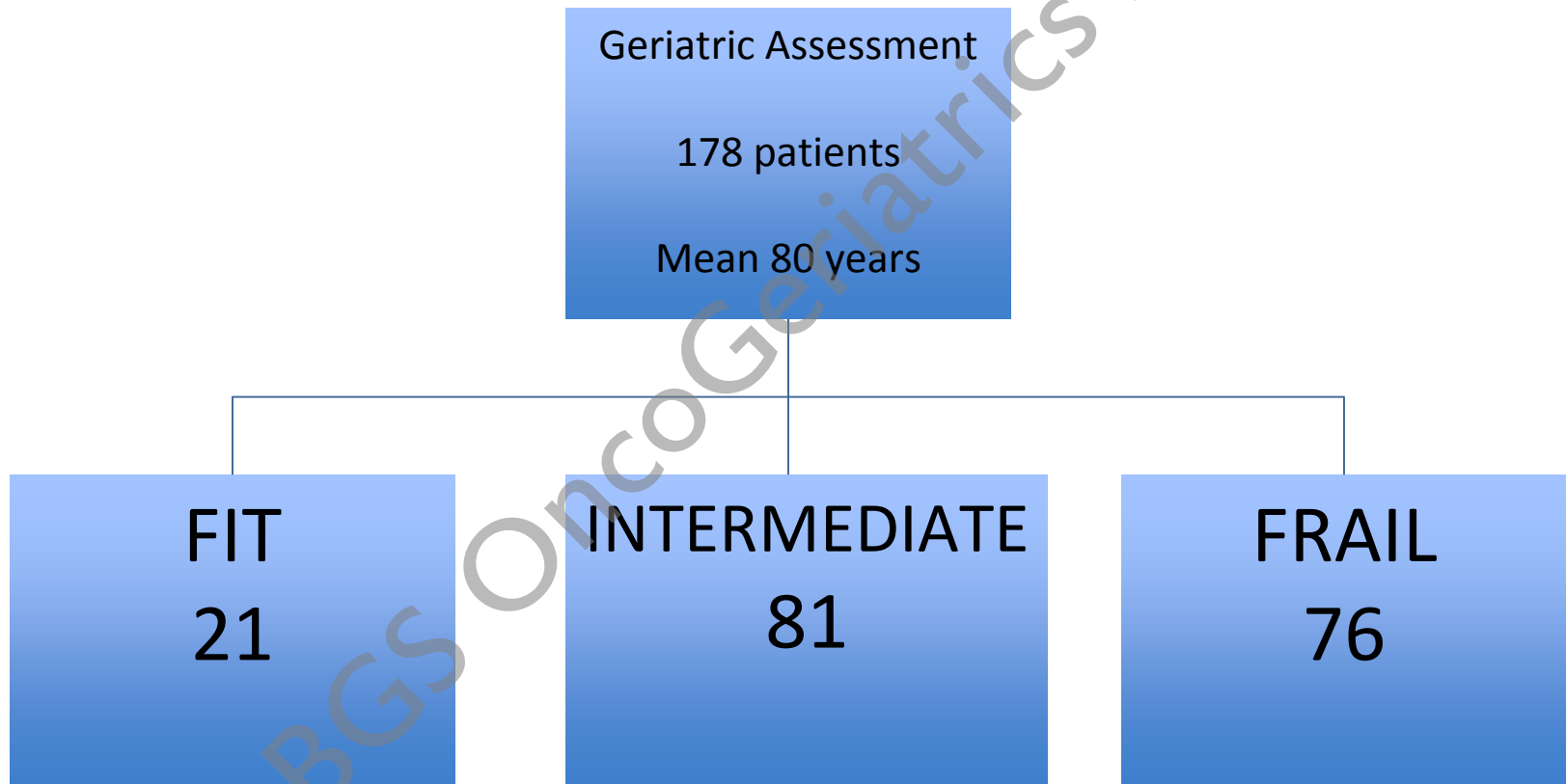
Conclusion

- Older patients are heterogeneous
- Comprehensive Geriatric Assessment provides relevant information
- Frailty describes the vulnerable subset of the older population

Study: Older patients (70+) with colorectal cancer

- » Geriatric assessment pre-surgery
- » Classified patients as fit, intermediate or frail

Study cohort



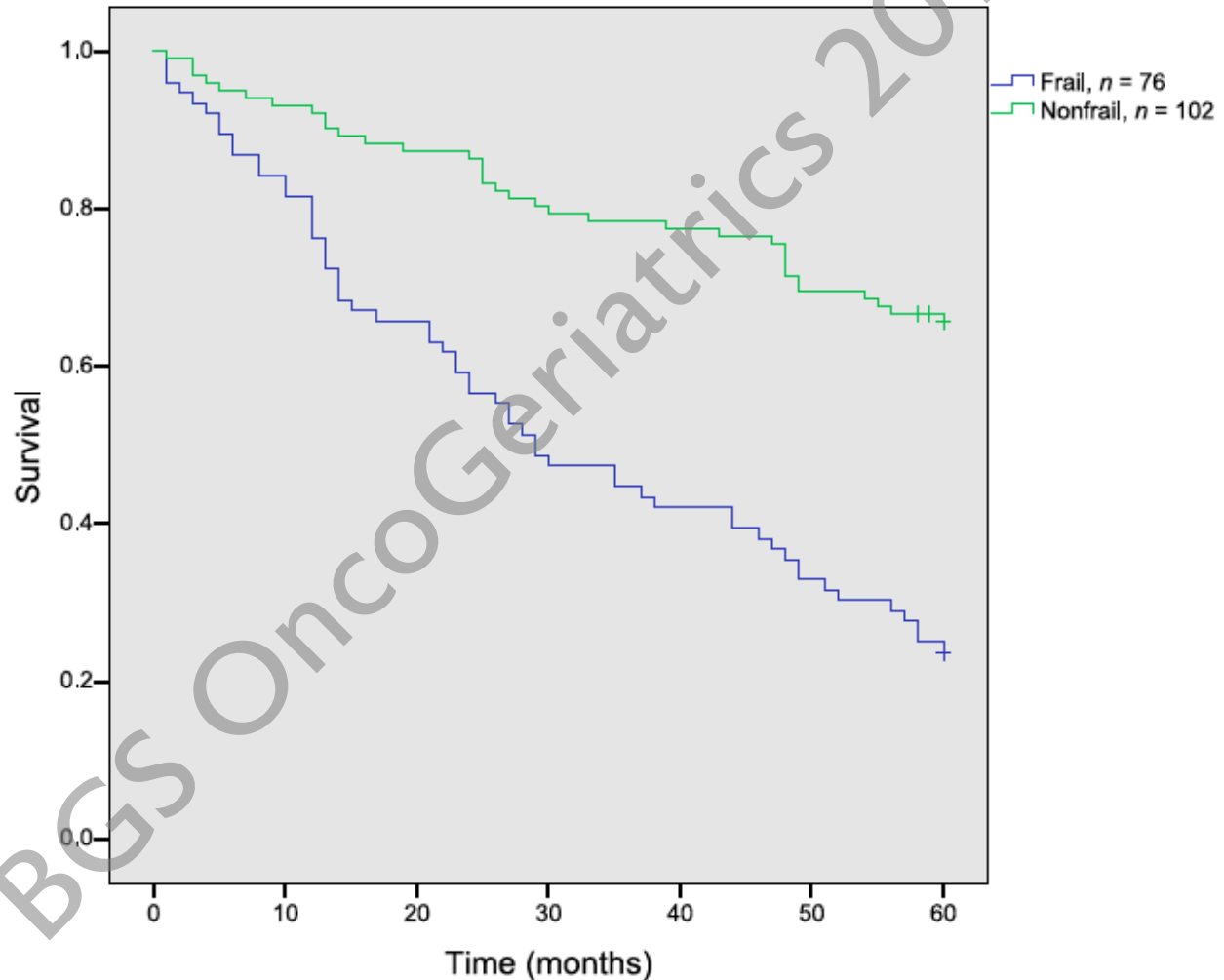
RESULTS

- » Frail patients had more severe complications than non-frail patients
- » Age was not a predictor of complications
- » Frail patients had poorer 5-year survival than non-frail patients
- » Age was not a predictor of survival

Kristjansson et al, CROH, 2010

Ommundsen et al, The Oncologist, 2014

5-year survival by frailty status



5-YEAR OVERALL SURVIVAL ACCORDING TO AGE

