


XXXII CONGRESSO NAZIONALE AIRO
XXXIII CONGRESSO NAZIONALE AIRB
XII CONGRESSO NAZIONALE AIRO GIOVANI

AIRO2022

Radioterapia di precisione per un'oncologia innovativa e sostenibile

BOLOGNA, 25-27 NOVEMBRE
PALAZZO DEI CONGRESSI

 Associazione Italiana
Radioterapia e Oncologia clinica

 Società Italiana di Radiobiologia

 Associazione
Italiana
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e Oncologia
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Neuro: Innovazione e sostenibilità nella gestione del paziente
anziano con neoplasia cerebrale primitiva

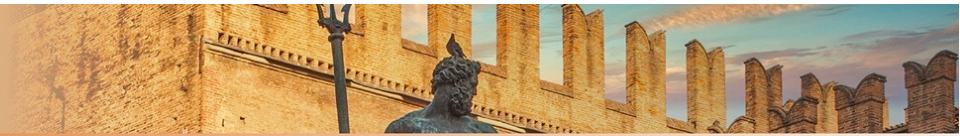
***Assessment geriatrico: fattibilità ed impatto sulle scelte
terapeutiche***

Giuseppe Colloca

AIRO2022

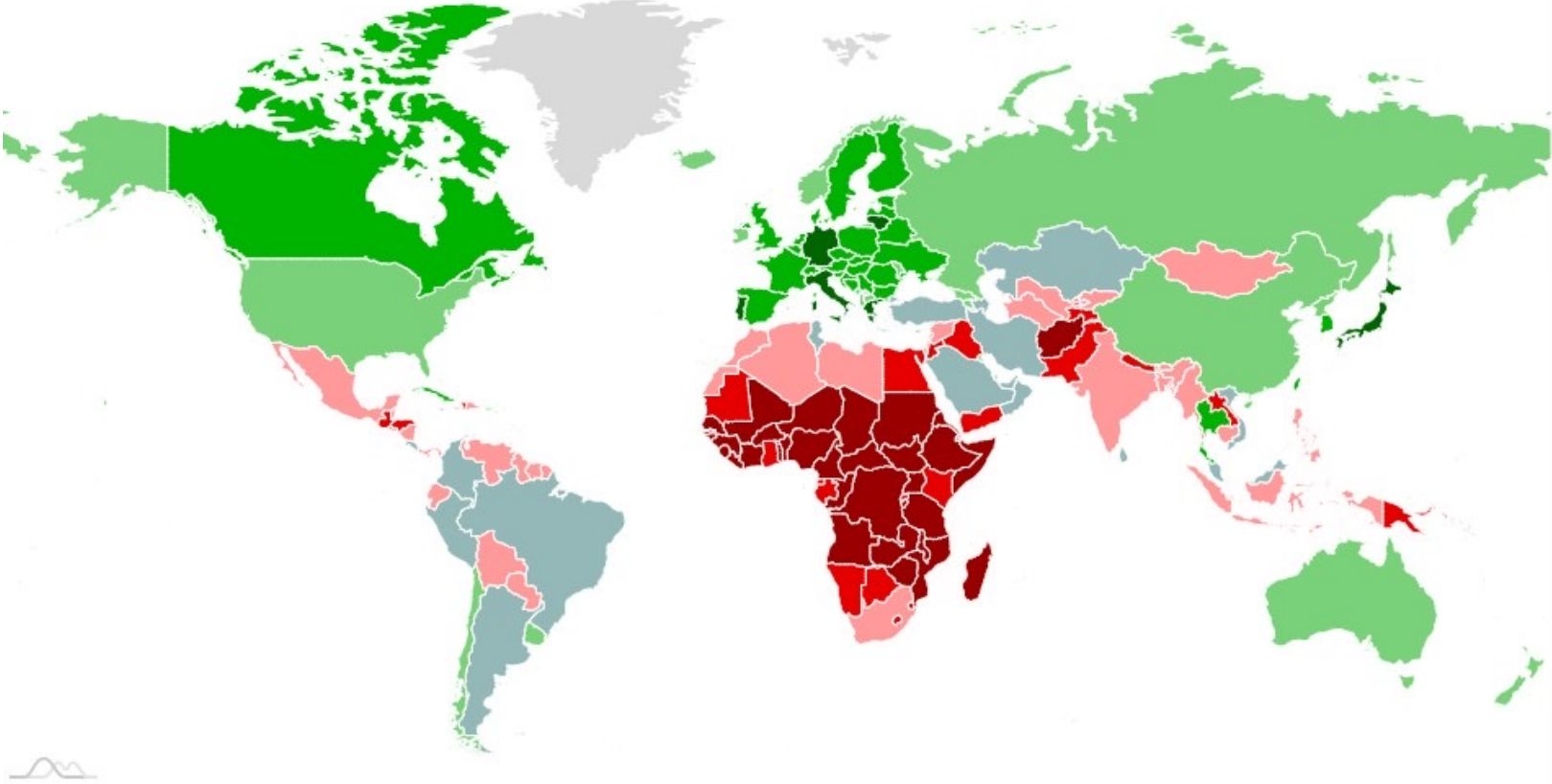
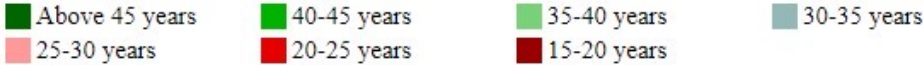
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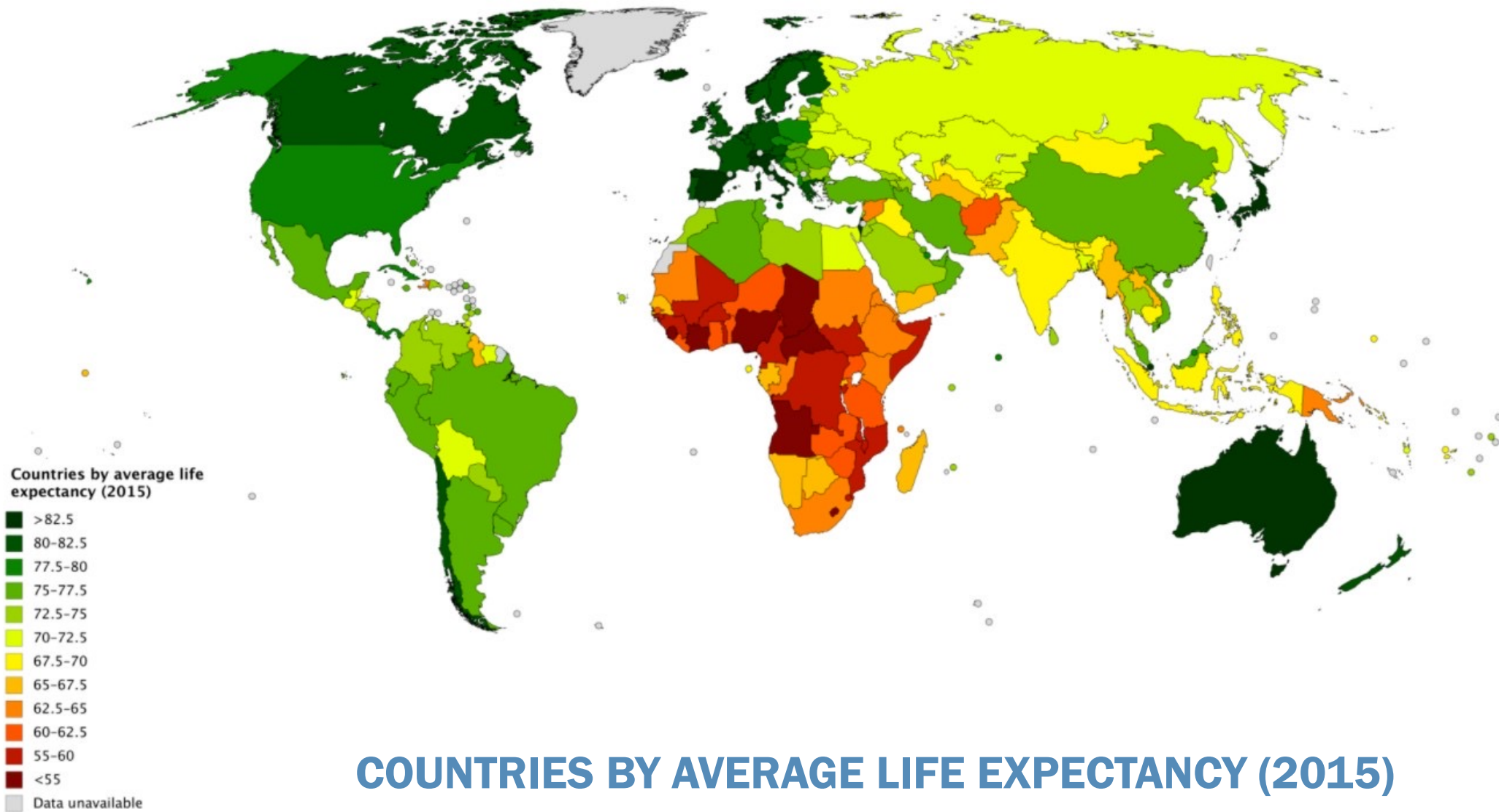
Radioterapia di precisione per un'oncologia innovativa e sostenibile



No disclosure

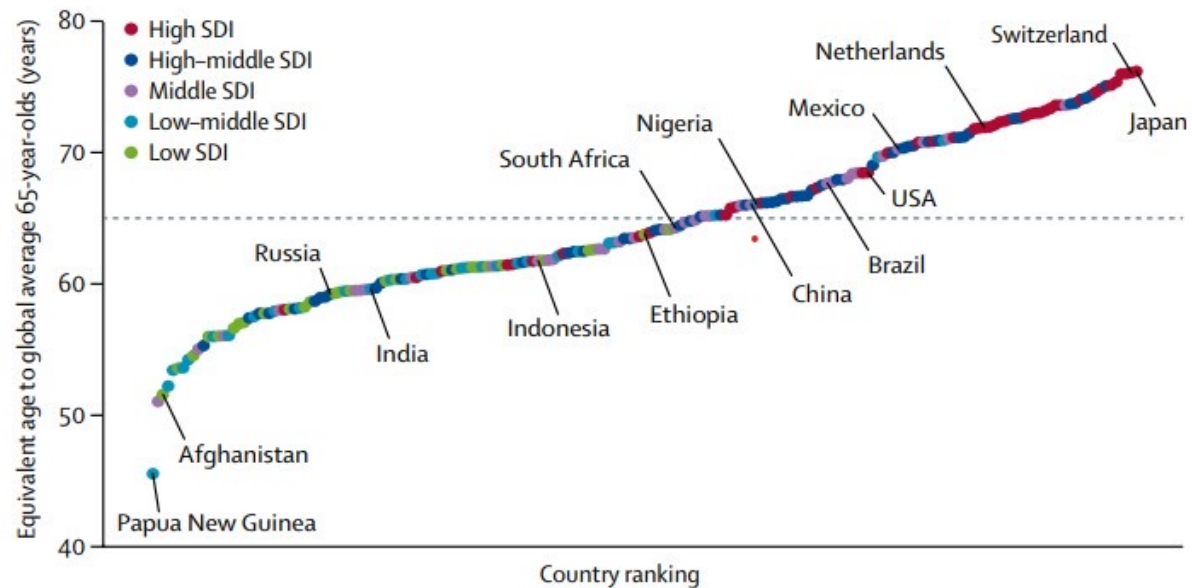
COUNTRIES BY MEDIAN AGE (2020)



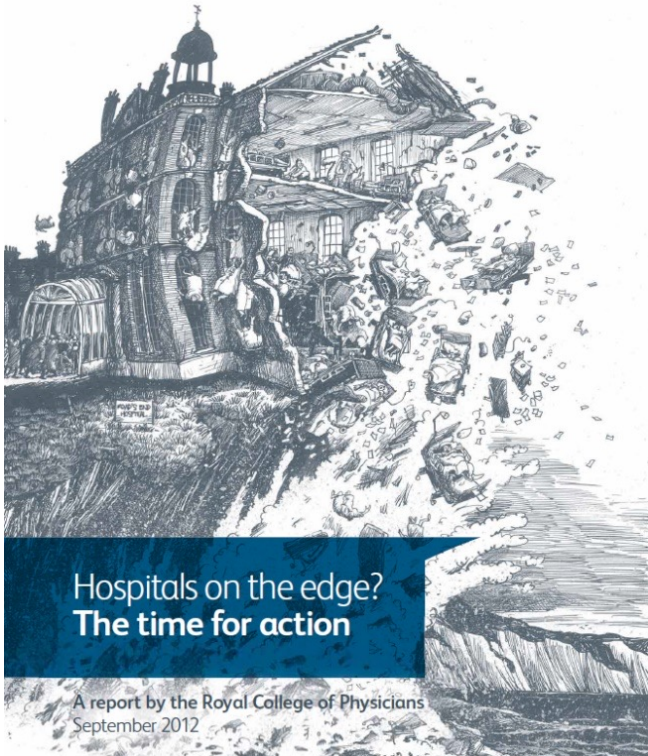


COUNTRIES BY AVERAGE LIFE EXPECTANCY (2015)

COMPARING THE EQUIVALENT AGES TO GLOBAL AVERAGE 65-YEAR-OLDS ACROSS COUNTRIES



The dashed line indicates global average 65-year-olds. Countries and territories are colour coded by their e. SDI=Socio-demographic Index.



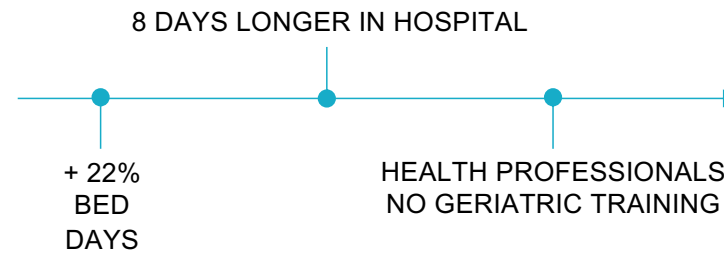
Hospitals on the edge? The time for action

A report by the Royal College of Physicians
September 2012



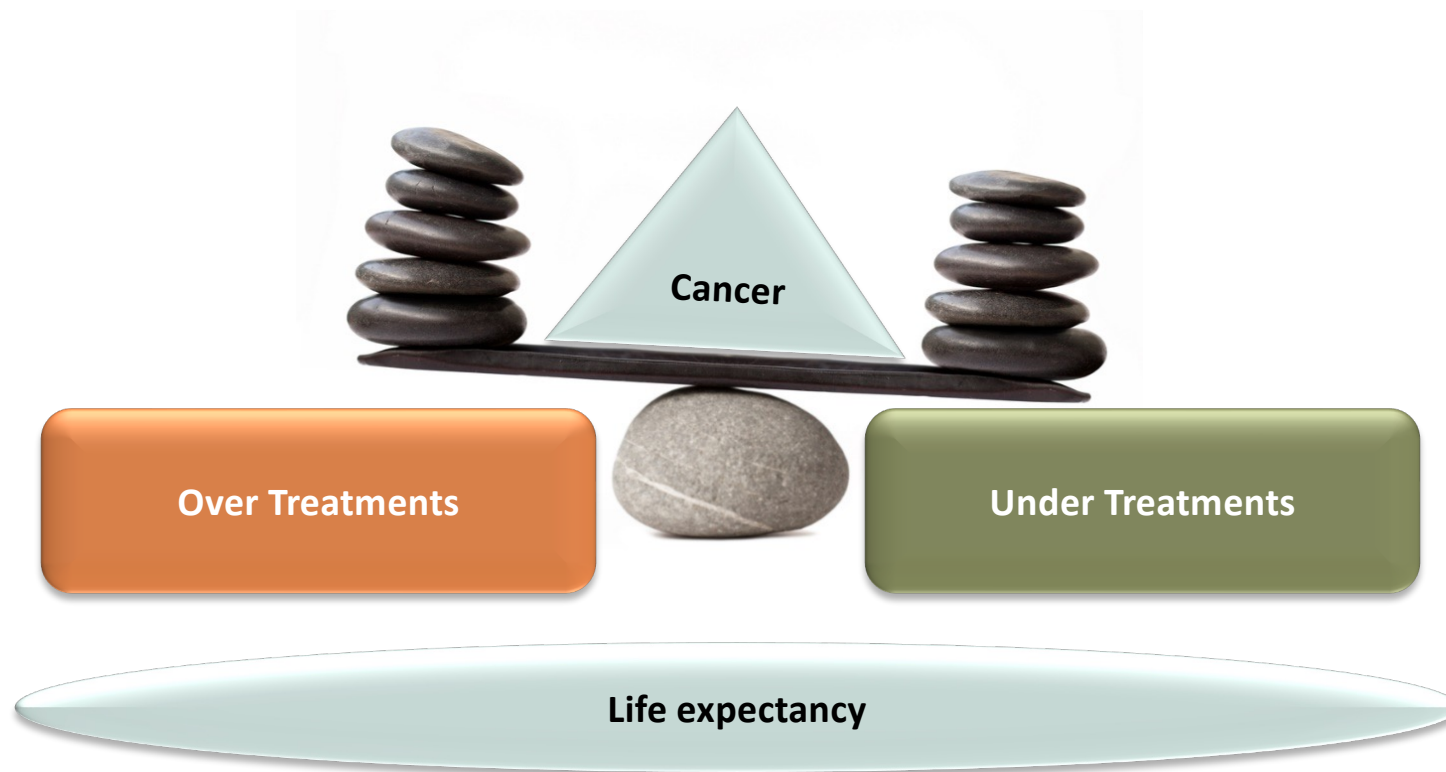
PATIENTS OVER 80:

OVER THE PAST 10 YEARS

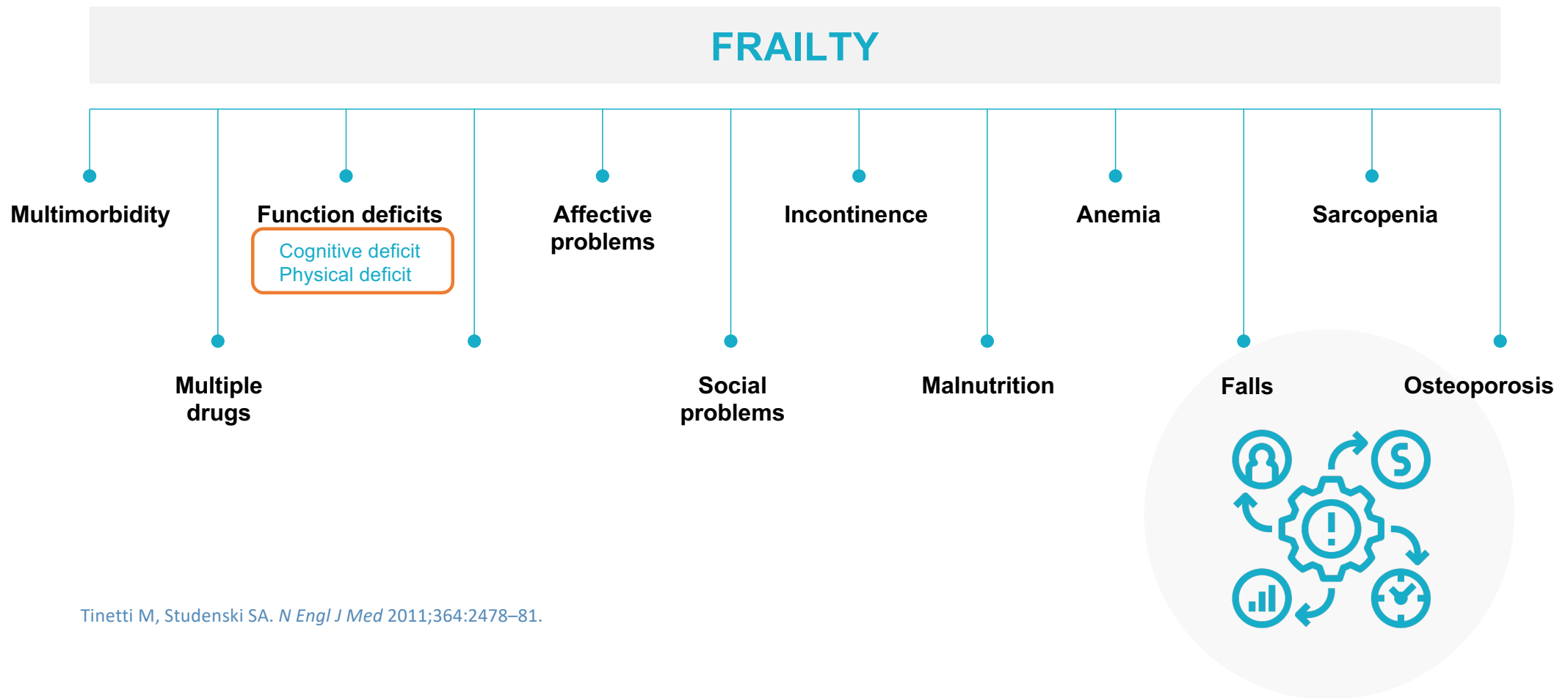


Royal College of Physicians. Hospitals on the edge? The time for action. Available at <https://www.rcplondon.ac.uk/guidelines-policy/hospitals-edge-time-action>.

Key Point



The “Complex” Patient



Tinetti M, Studenski SA. *N Engl J Med* 2011;364:2478–81.

Frailty and stress

Frailty is most obvious under “stress”

acute illness

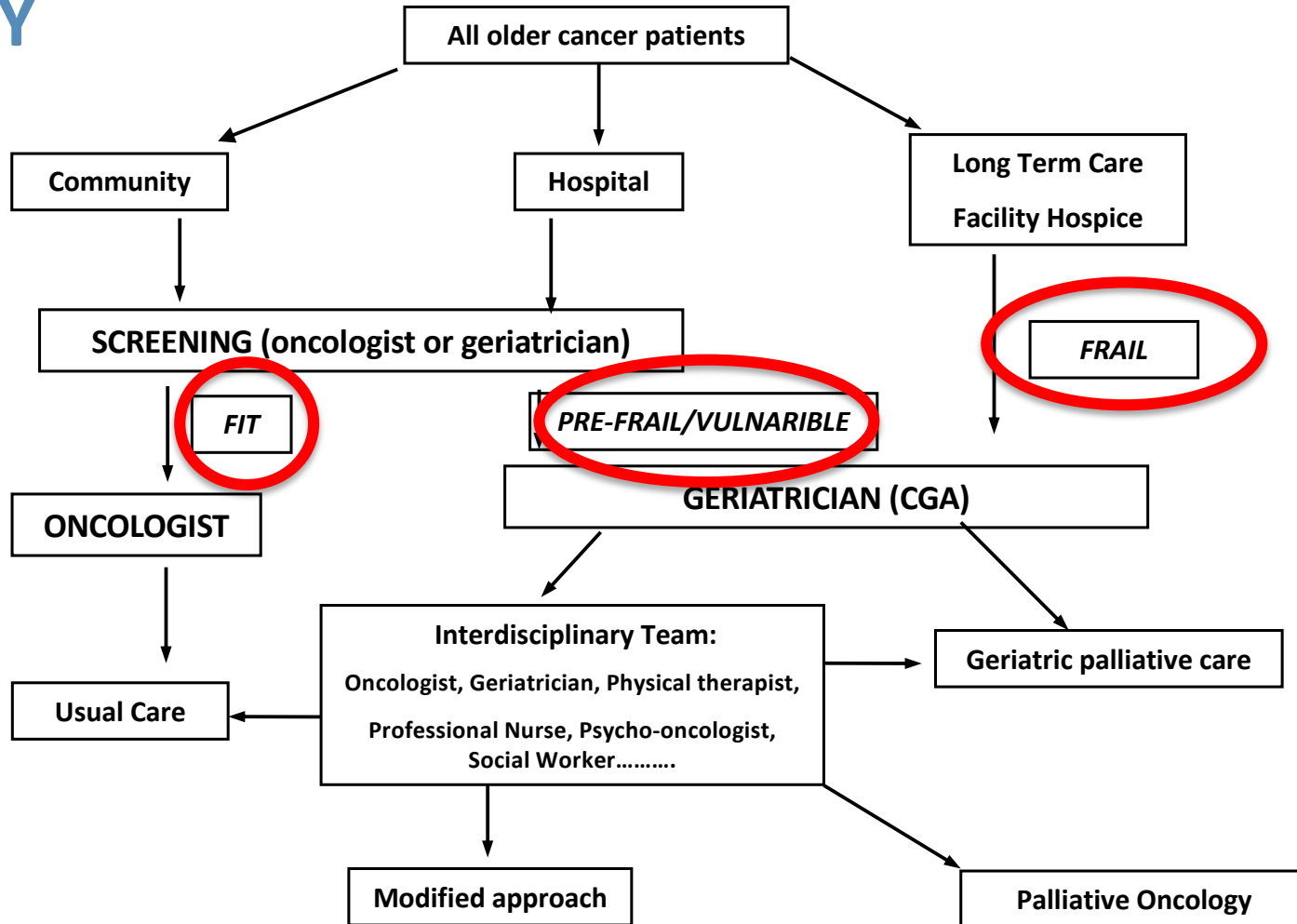
new medications

surgery

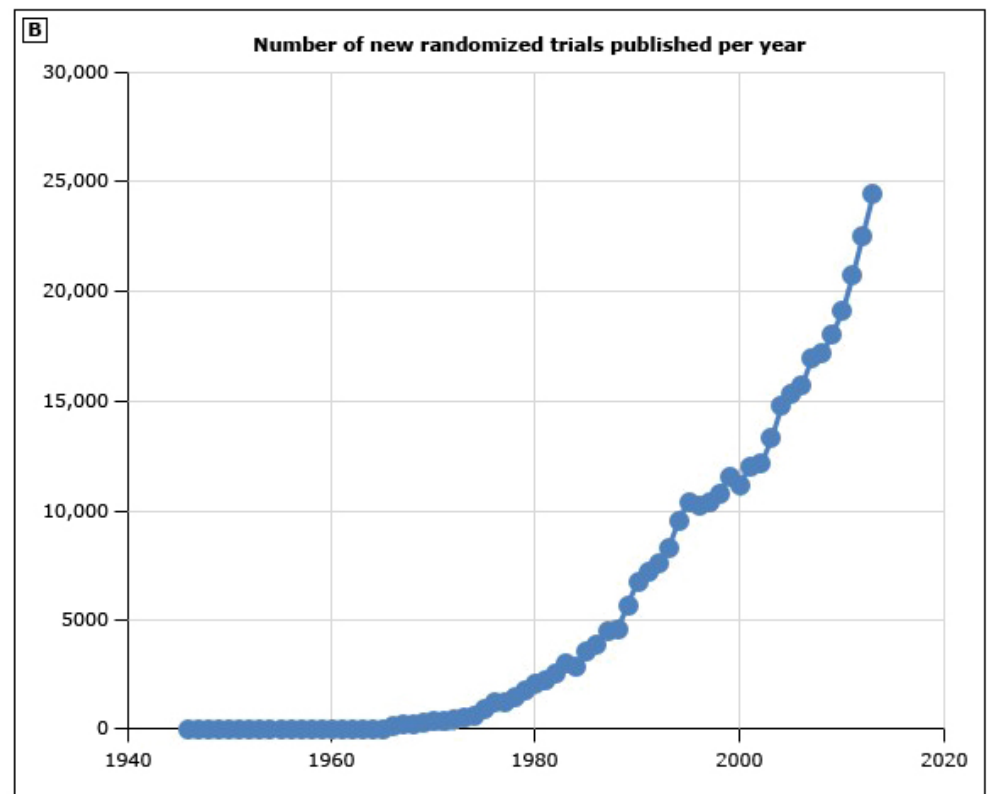
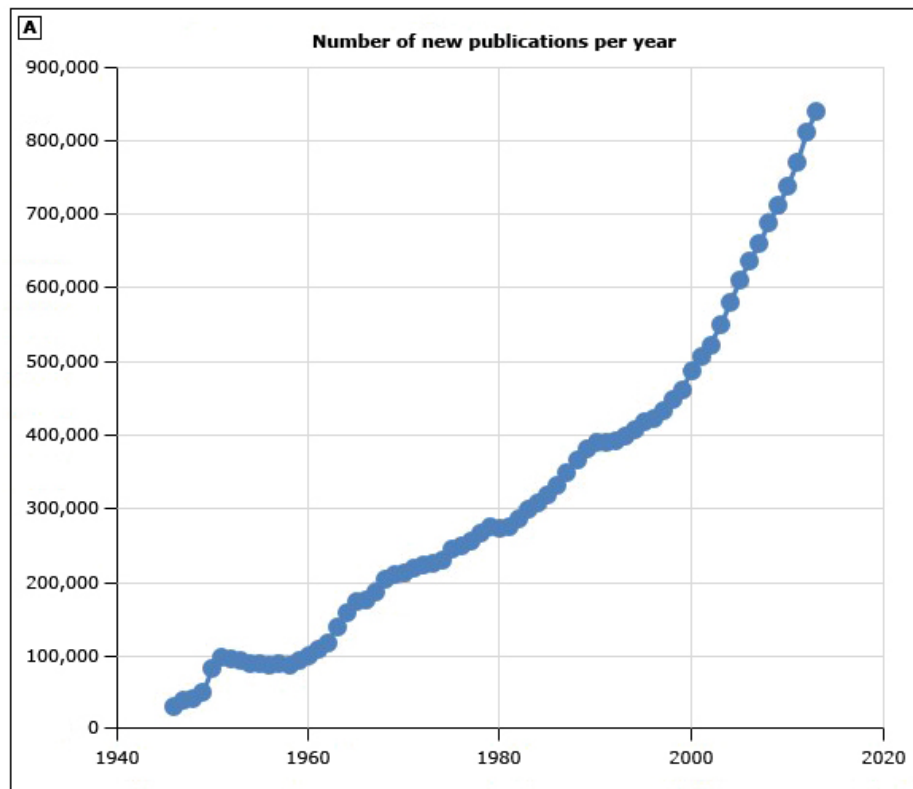
pain

change in environment or support

FRAILITY



Exponential growth of the medical literature from 1946 to 2015



SCIENCEINSIDER | HEALTH

FDA pushes cancer trials to include more elderly people

New guidance aims to improve understanding of drug safety, effectiveness in older adults

3 MAR 2022 • 1:10 PM • BY JENNIFER COUZIN-FRANKEL



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Radioterapia di precisione per un'oncologia innovativa e sostenibile



Comprehensive Geriatric Assessment

Geriatric Assessment Screening tools

Outcomes..

Clinical oncology

Articles



Evaluation of geriatric assessment and management on the toxic effects of cancer treatment (GAP70+): a cluster-randomised study

Supriya G Mohile, Mostafa R Mohamed, Huiwen Xu, Eva Culakova, Kah Poh Loh, Allison Magnuson, Marie A Flannery, Spencer Obrecht, Nikeshia Gilmore, Erika Ramsdale, Richard F Dunne, Tanya Wildes, Sandy Plumb, Amita Patil, Megan Wells, Lisa Lowenstein, Michelle Janelsins, Karen Mustian, Judith O Hopkins, Jeffrey Berenberg, Navin Anthony, William Dale

Summary

Background Older adults with advanced cancer are at a high risk for treatment toxic effects. Geriatric assessment evaluates ageing-related domains and guides management. We examined whether a geriatric assessment intervention can reduce serious toxic effects in older patients with advanced cancer who are receiving high risk treatment (eg, chemotherapy).

Methods In this cluster-randomised trial, we enrolled patients aged 70 years and older with incurable solid tumours or lymphoma and at least one impaired geriatric assessment domain who were starting a new treatment regimen. 40 community oncology practice clusters across the USA were randomly assigned (1:1) to the intervention (oncologists received a tailored geriatric assessment summary and management recommendations) or usual care (no geriatric assessment summary or management recommendations were provided to oncologists) by means of a computer-generated randomisation table. The primary outcome was the proportion of patients who had any grade 3–5 toxic effect (based on National Cancer Institute Common Terminology Criteria for Adverse Events version 4) over 3 months. Practice staff prospectively captured toxic effects. Masked oncology clinicians reviewed medical records to verify. The study was registered with ClinicalTrials.gov, NCT02054741.

Findings Between July 29, 2014, and March 13, 2019, we enrolled 718 patients. Patients had a mean age of 77·2 years (SD 5·4) and 311 (43%) of 718 participants were female. The mean number of geriatric assessment domain impairments was 4·5 (SD 1·6) and was not significantly different between the study groups. More patients in intervention group compared with the usual care group were Black versus other races (40 [11%] of 349 patients vs 12 [3%] of 369 patients; $p < 0\cdot0001$) and had previous chemotherapy (104 [30%] of 349 patients vs 81 [22%] of 369 patients; $p = 0\cdot016$). A lower proportion of patients in the intervention group had grade 3–5 toxic effects (177 [51%] of 349 patients) compared with the usual care group (263 [71%] of 369 patients; relative risk [RR] 0·74 [95% CI 0·64–0·86; $p = 0\cdot0001$). Patients in the intervention group had fewer falls over 3 months (35 [12%] of 298 patients vs 68 [21%] of 329 patients; adjusted RR 0·58, 95% CI 0·40–0·84; $p = 0\cdot0035$) and had more medications discontinued (mean adjusted difference 0·14, 95% CI 0·03–0·25; $p = 0\cdot015$).

Interpretation A geriatric assessment intervention for older patients with advanced cancer reduced serious toxic effects from cancer treatment. Geriatric assessment with management should be integrated into the clinical care of older patients with advanced cancer and ageing-related conditions.

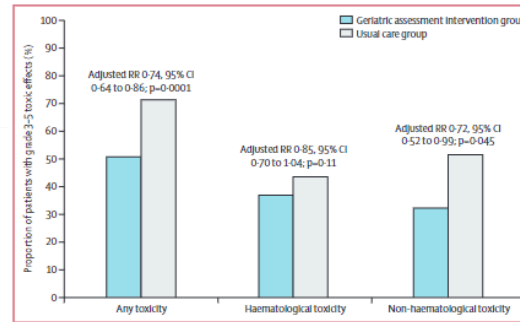


Figure 2: Prevalence of any grade 3–5 Common Terminology Criteria for Adverse Events toxic effects over 3 months

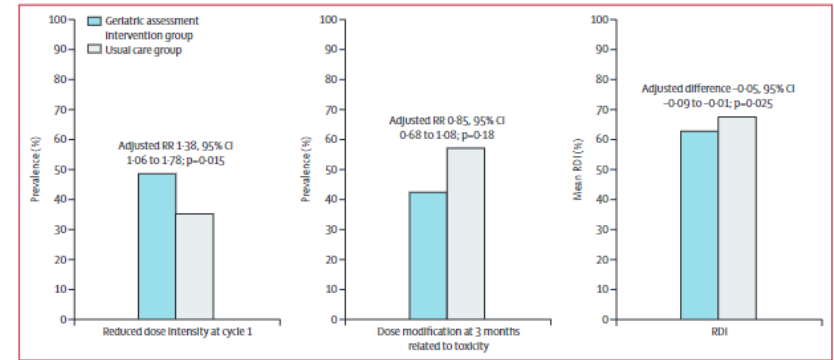


Figure 3: Treatment intensity by study group (A) Prevalence of reduced treatment intensity at cycle 1. (B) Prevalence of dose modifications over 3 months. (C) RDI over 3 months. RDI—relative dose intensity.

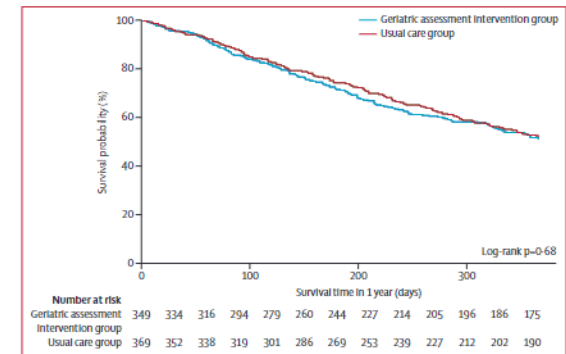


Figure 4: Survival over 1 year by study group

Lancet 2021; 398: 1894–904
 Published Online November 3, 2021
[https://doi.org/10.1016/S0140-6736\(21\)01789-X](https://doi.org/10.1016/S0140-6736(21)01789-X)
 See Comment page 1853
 Department of Medicine, University of Rochester Medical Center, Rochester, NY, USA (Prof S G Mohile MD, M R Mohamed MBChD, K P Loh MBChB BAQ, A Magnuson DO, S Obrecht RN, E Ramsdale MD, R F Dunne MD, T Wildes MD, S Plumb BS, A Patil MPH, M Wells MPH); Department of Surgery, University of Rochester Cancer Center National Cancer Institute (NCI) Community Oncology Research Program (NCORP) Research Base, Rochester, NY, USA (Prof S G Mohile, H Xu PhD, E Culakova PhD, M A Flannery PhD, N Gilmore PhD, M Janelsins PhD, Prof R Mustian PhD); Department of Health Services Research, The University of Texas MD Anderson Cancer Center, Houston, TX, USA (L Lowenstein PhD); Southeast Clinical Oncology Research (SCOR) Consortium NCORP, Winston-Salem, NC, USA

Clinical oncology

JAMA Oncology | Original Investigation

Geriatric Assessment–Driven Intervention (GAIN) on Chemotherapy-Related Toxic Effects in Older Adults With Cancer A Randomized Clinical Trial

Daneng Li, MD; Can-Lan Sun, PhD; Heeyoung Kim, MPH; Enrique Soto-Perez-de-Cellis, MD; Vincent Chung, MD; Marianna Koczywas, MD; Marwan Fakih, MD; Joseph Chao, MD; Leana Cabrera Chien, MSN; Kemeberly Charles, BS; Simone Fernandes Dos Santos Hughes, MD; Vani Katheria, MS; Monica Trent, BS; Elsa Roberts, BS; Reena Jayani, MD; Jeanine Moreno, MSN; Cynthia Kelly, MSN; Mina S. Sedrak, MD, MS; William Dale, MD, PhD



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

Clinical oncology

The oncologist's choices are modified by the geriatric assessment

Less toxicity

Greater compliance with treatments

Less loss of autonomy and development of geriatric syndromes

Better quality of life

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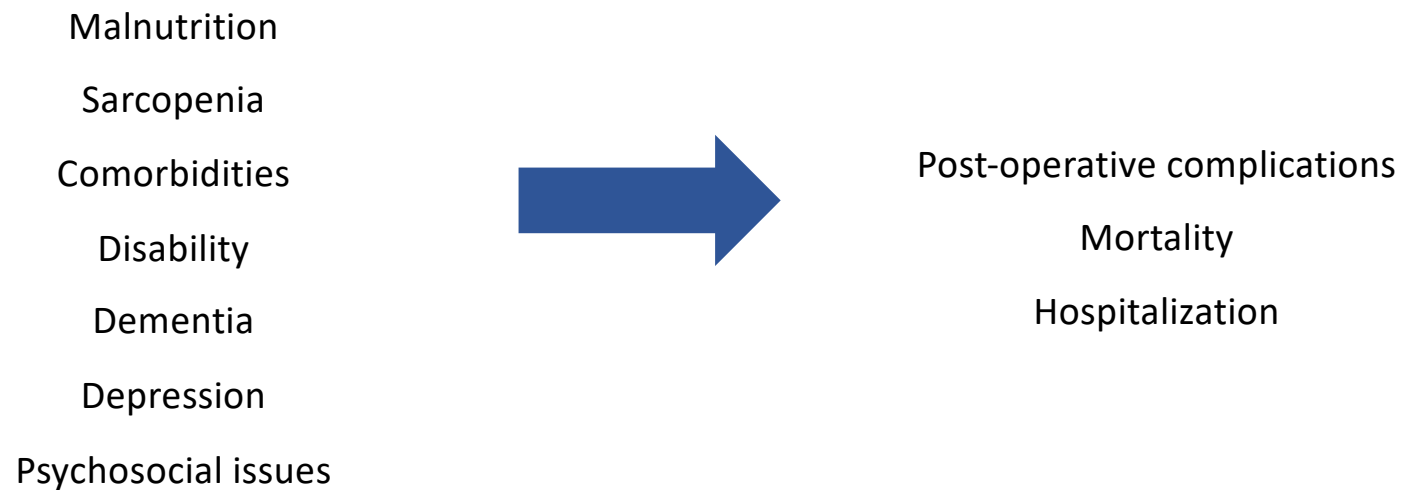
Surgery

TOPIC HIGHLIGHT

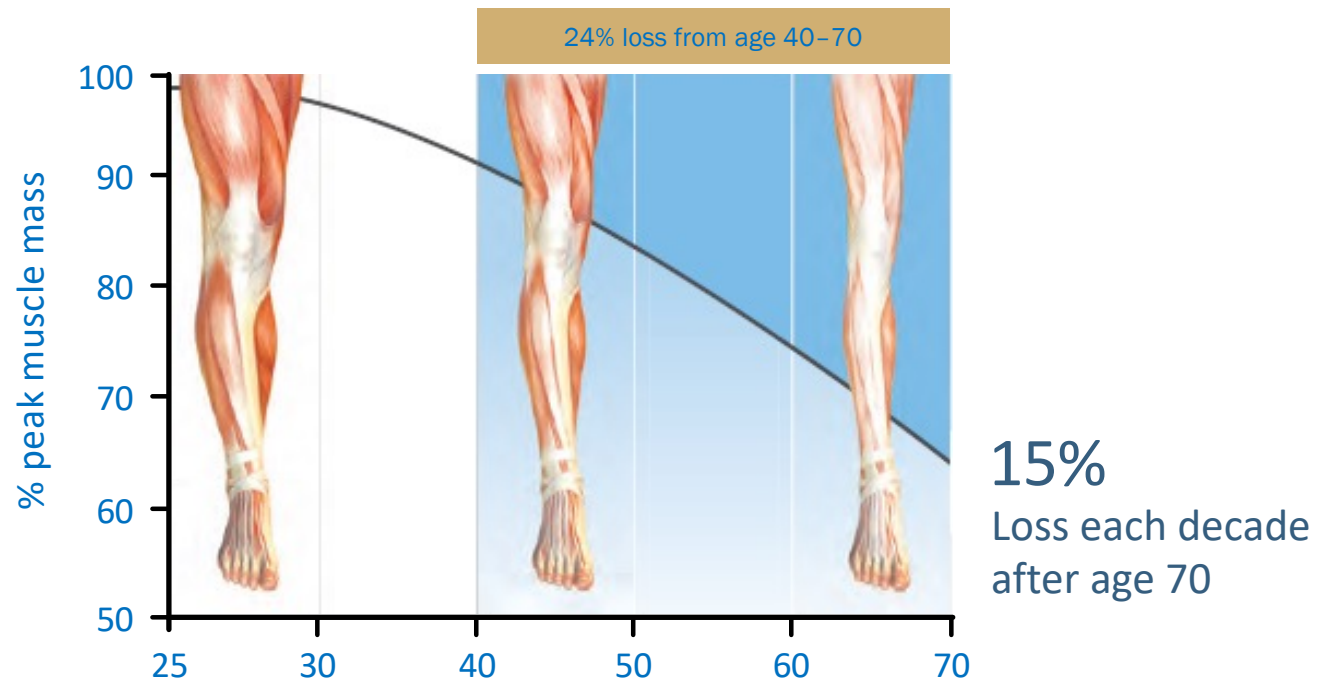
WJG 20th Anniversary Special Issues (5): Colorectal cancer

Personalized surgical management of colorectal cancer in elderly population

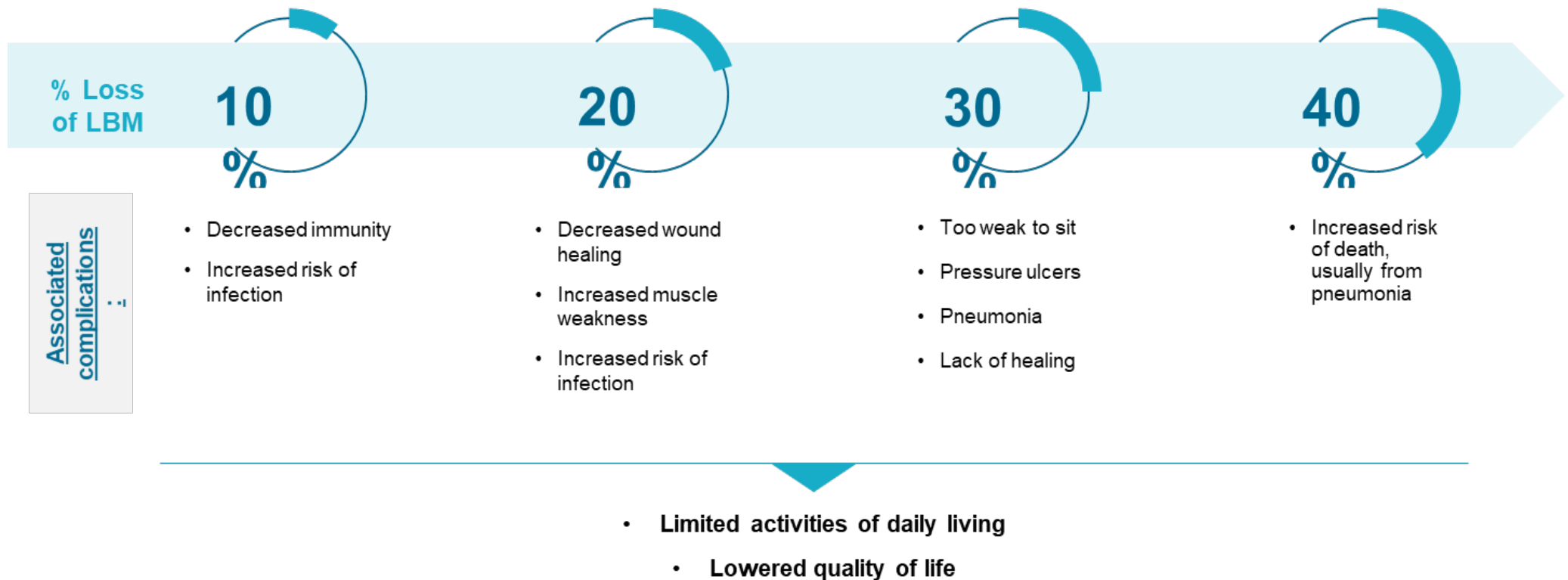
Giampaolo Ugolini, Federico Ghignone, Davide Zattoni, Giacomo Veronese, Isacco Montroni



LOSS OF MUSCLE MASS AND STRENGTH, A NATURAL PART OF AGING



Aging and muscle consequences of losing LBM/muscle



Surgery









JNCI J Natl Cancer Inst (2022) 114(7): djac071

<https://doi.org/10.1093/jnci/djac071>

First published online April 8, 2022

Article

Quality of Life in Older Adults After Major Cancer Surgery: The GOSAFE International Study

Isacco Montroni, MD ¹ Giampaolo Ugolini, MD,¹ Nicole M. Saur, MD,² Siri Rostoft, MD ³
Antonino Spinelli, MD ^{4,5} Barbara L. Van Leeuwen, MD,⁶ Nicola De Liguori Carino, MD,⁷
Federico Ghignone, MD,¹ Michael T. Jaklitsch, MD,⁸ Ponnandai Somasundar, MD,⁹ Anna Garutti, MD,¹
Chiara Zingaretti, PhD,¹⁰ Flavia Foca, BSc ^{10,*} Bernadette Vertogen, BSc,¹⁰ Oriana Nanni, MStat ¹⁰
Steven D. Wexner, MD,¹¹ Riccardo A. Audisio, MD ¹² and the SIOG Surgical Task Force/ESSO GOSAFE Study Group[†]

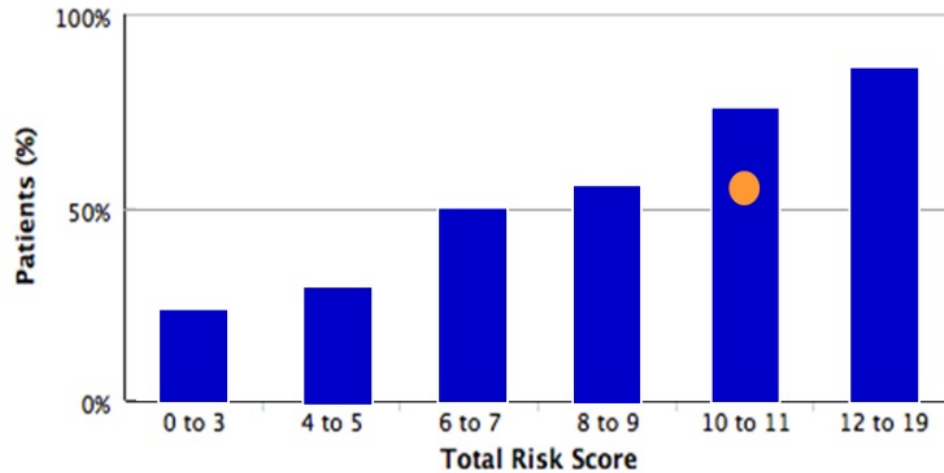
GOSAFE prospectively collected data before and after major elective cancer surgery on older adults (≥ 70 years). Frailty assessment + EuroQol five-dimensional questionnaire (EQ-5D-3L).

The mean EQ-5D-3L index was similar before vs 3 months but improved at 6 months (0.79 vs 0.82; $P < .001$).

Frailty screening tools, patient-reported outcomes, and goals-of-care discussions can guide decisions to pursue surgery and direct patients' expectations.

Chemo-Toxicity Calculator

Grade 3-5 Toxicity



Chemotherapy Risk Assessment Scale For High-Age Patients (CRASH)

Hematologic Chemotoxicity Risk

Risk Factors for Grade 4

Hematologic Toxicity	0 points	1 point	2 points
Diastolic blood pressure	≤ 72 mm Hg	>72 mm Hg	
Instrumental Activities of Daily Living	26-29	10-25	
Lactate dehydrogenase*	0-459 IU/mL		>459 IU/mL
Chemotoxicity (MAX2 index)	0-0.44	0.45-0.57	>0.57

*For an upper limit of normal at 618 IU/mL.

Note: Risk: 0-1 = low, 2-3 = intermediate low, 4-5 = intermediate high, 6 = high.

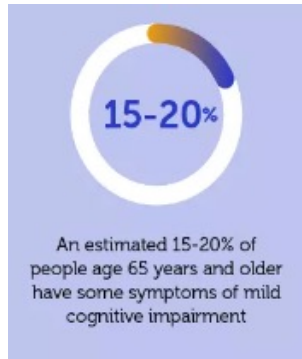
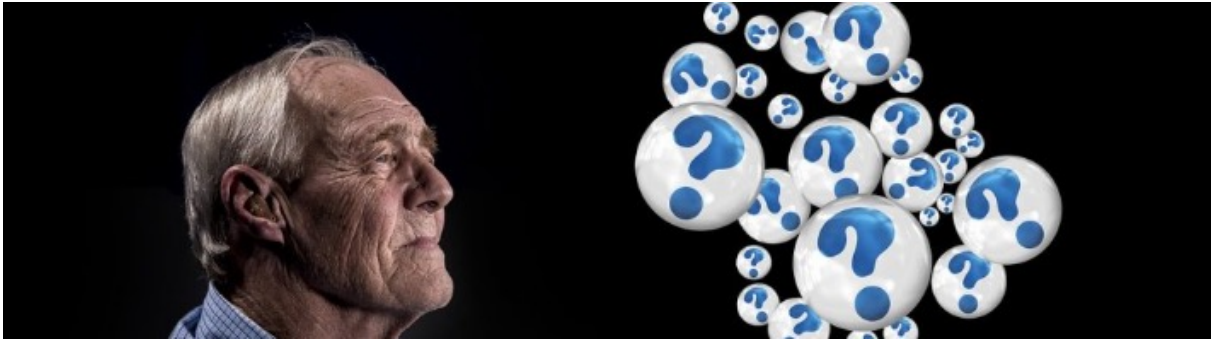
Nonhematologic Chemotoxicity Risk

Risk Factors for Grade 3/4

Nonhematologic Toxicity	0 points	1 point	2 points
Eastern Cooperative Oncology Group performance status	0	1-2	3-4
Mini-Mental State Examination score	≥ 30		<30
Mini Nutritional Assessment score	>27.5		0-27.5
Chemotoxicity (MAX2 index)	0-0.44	0.45-0.57	>0.57

Note: Risk: 0-2 = low, 3-4 = intermediate low, 5-6 = intermediate high, 7-8 = high.

Source: Dr. Extermann



"People with mild cognitive impairment may have thinking changes, but they're still functioning."

– Dr. Jennifer Davis

NINKATEC
Right at home

MILD COGNITIVE IMPAIRMENT (MCI)

12-18%

of people **age 60 or older** are living with MCI.

1 in 3

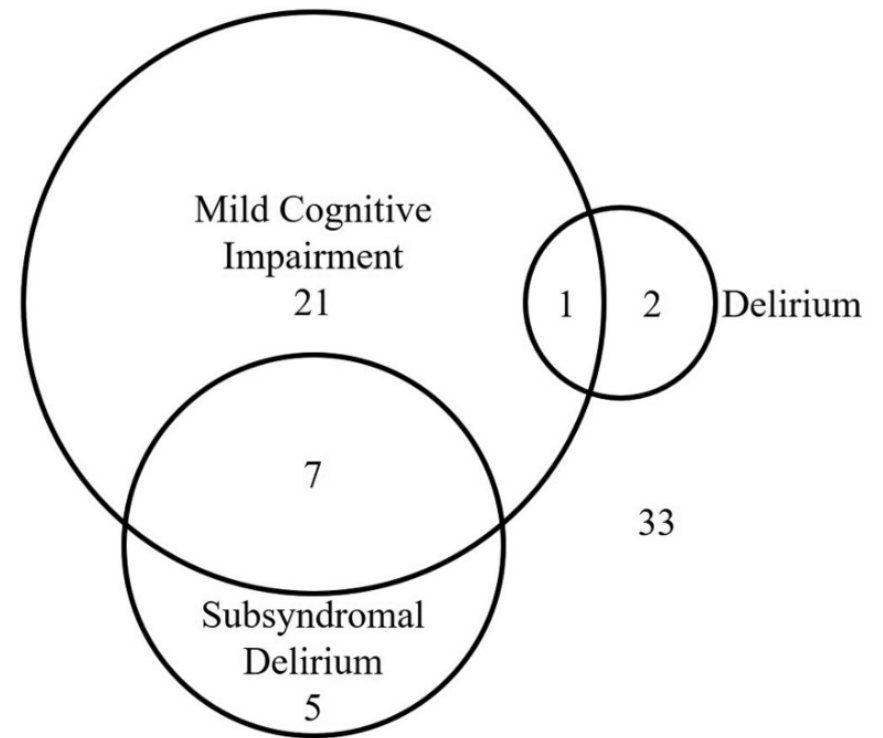
people living with MCI due to Alzheimer's disease **develop dementia within 5 years.**

Memory-related symptoms of MCI include:¹²

- Forgetting things more often
- Forgetting important events
- Losing your train of thought
- Feeling overwhelmed by decision-making
- Getting lost in familiar environments

Along with memory problems, other common symptoms of MCI include difficulties with the following:¹³

- Decision-making
- Agitation
- Impulsivity
- Disinhibition
- Irritability
- Sleep problems
- Anxiety
- Depression



Treatment of Radiation-Induced Cognitive Decline in Adult Brain Tumor Patients

Patients with either primary or metastatic brain tumors quite often have cognitive impairment. Maintaining cognitive function is important to brain tumor patients and a decline in cognitive function is generally accompanied by a decline in functional independence and performance status.

Cognitive decline can be a result of tumor progression, depression/anxiety, fatigue/sleep dysfunction, or the treatments they have received.

It is our opinion that providers treating brain tumor patients should obtain pre-treatment and serial cognitive testing in their patients and offer mitigating and therapeutic interventions when appropriate. They should also support cognition-focused clinical trials.

Mild cognitive impairment in long-term brain tumor survivors following brain irradiation

Cognitive performance (N = 197)

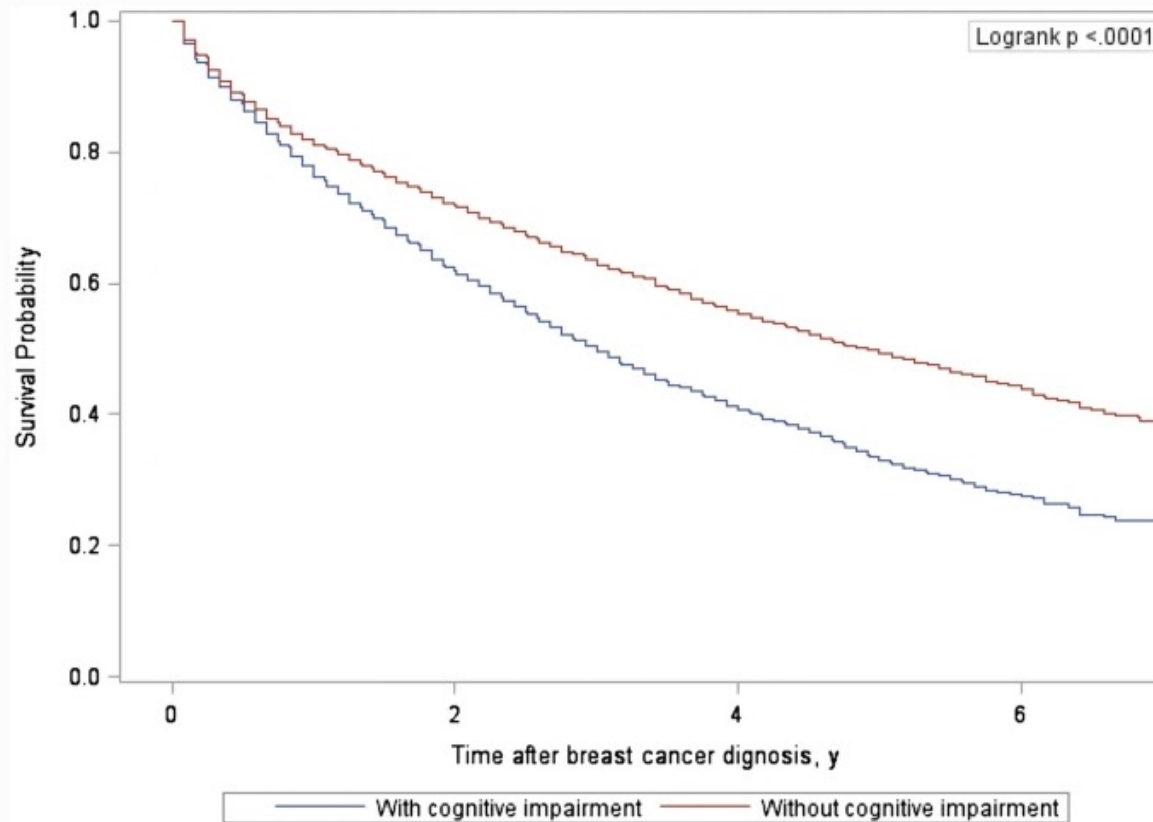
Test	Frequency (%) with cognitive deficit ^a
Controlled Oral Word Association (executive function)	68 (35)
Trail Making Test part B (executive function)	121 (61)
Hopkins Verbal Learning Test revised—delayed recall (verbal memory)	102 (52)
Hopkins Verbal Learning Test revised—immediate recall (verbal memory)	102 (52)
Digit span (attention)	13 (7)
Trail making test part A (attention)	81 (41)

^a≥ 1.5 SD poorer than normative comparison group

Depression, Anxiety, and Apathy in Mild Cognitive Impairment: Current Perspectives

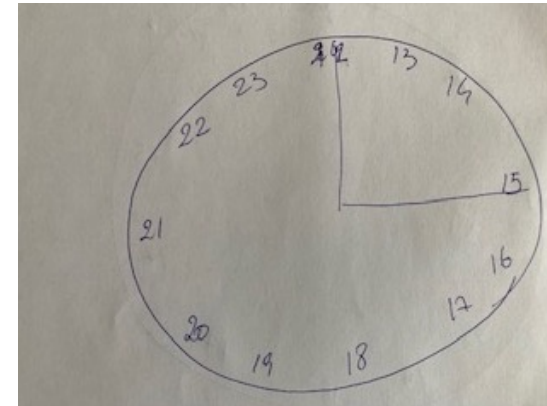
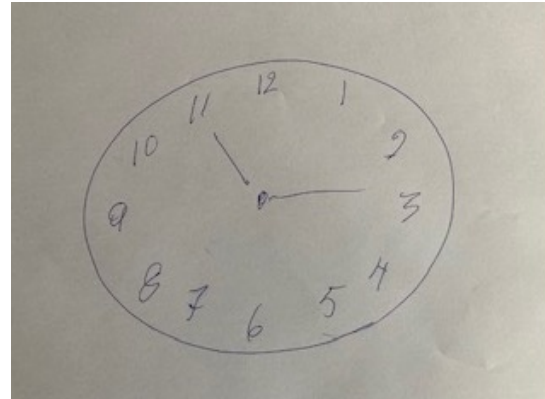
The reported prevalence of depression in MCI patients ranged between 16.9%–55%, whereas only 11%–30% of older adults presented significant depressive symptoms;

The impact of cognitive impairment on survival and medication adherence among older women with breast cancer

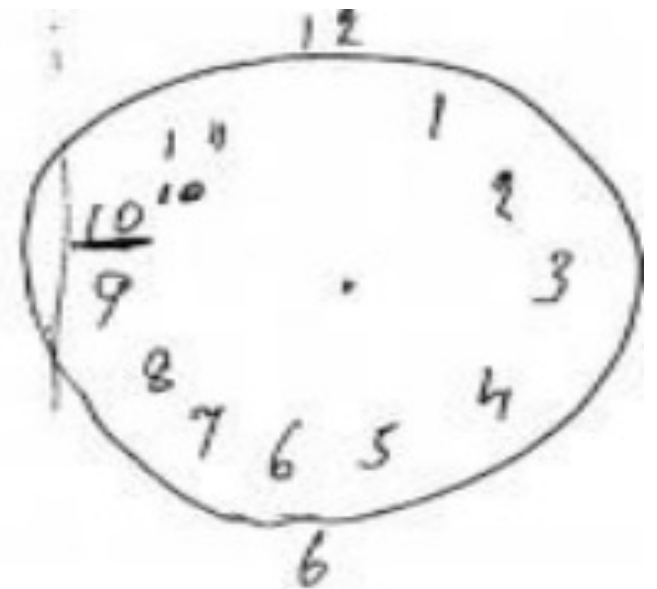




Clock Drawing Test



Clock Drawing Test



Memantina

Donepezil



Citicolina/omotaurina

Silibina

Acetil carnitina



**Mind-stimulating
Activities**



Therapy



**Lifestyle
Changes**

PATIENT-CENTRIC APPROACH



Clinical oncology

JOURNAL OF CLINICAL ONCOLOGY

COMMENTS AND CONTROVERSIES

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*

- Identify frailty areas
- Identify patient priorities
- Predict life expectancy in the absence of cancer disease
- Predict the risk of toxicity
- Document clinical conditions at baseline

All of these factors can significantly influence treatments

Costs related to further diagnostic investigations, unnecessary treatments, or procedures or management of toxicity is greater than the cost of geriatric assessment