

ONCOGERIATRIE  
HOOGTEPUNTEN SIOG CONGRES 2025, GENT, BELGIË

Prof dr Lore Decoster, UZ Brussel



Universitair  
Ziekenhuis  
Brussel

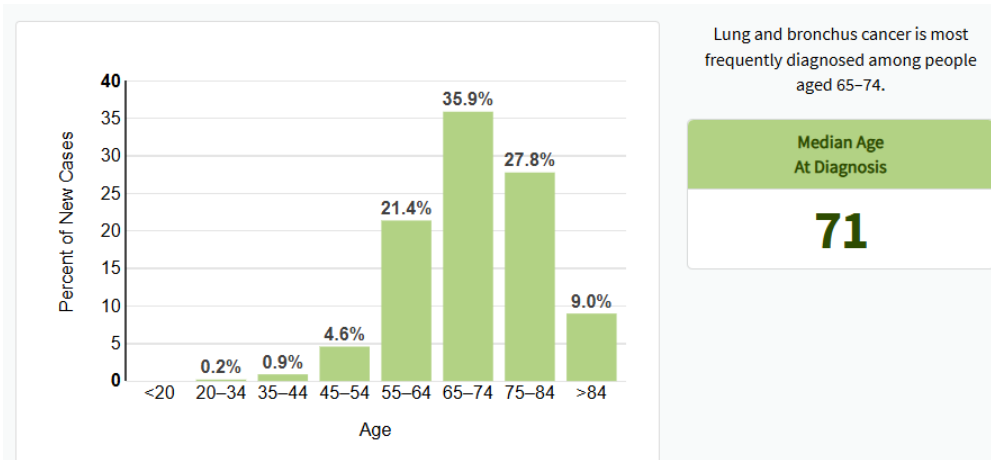




# INLEIDING

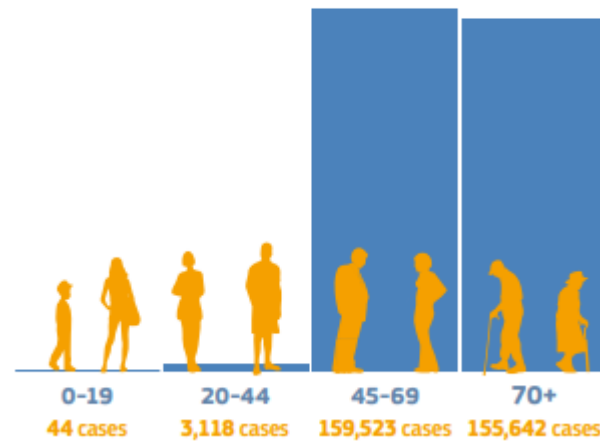
# 000 INLEIDING

Longkanker +/- 50% ouder dan 70 jaar



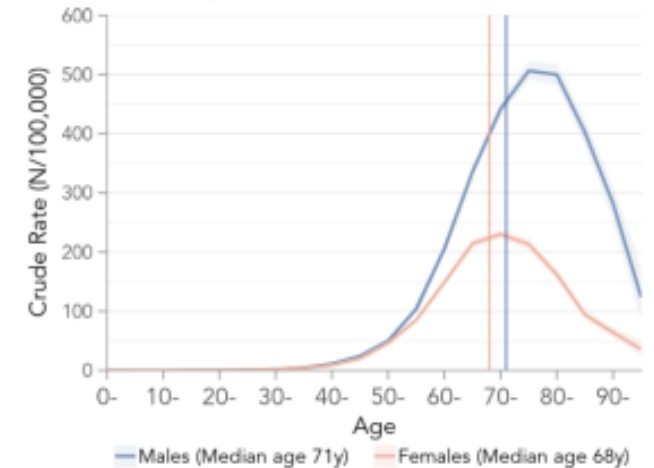
USA

ESTIMATED DISTRIBUTION OF NEW CASES OF LUNG CANCER IN 2020 – BY AGE GROUP



Europa

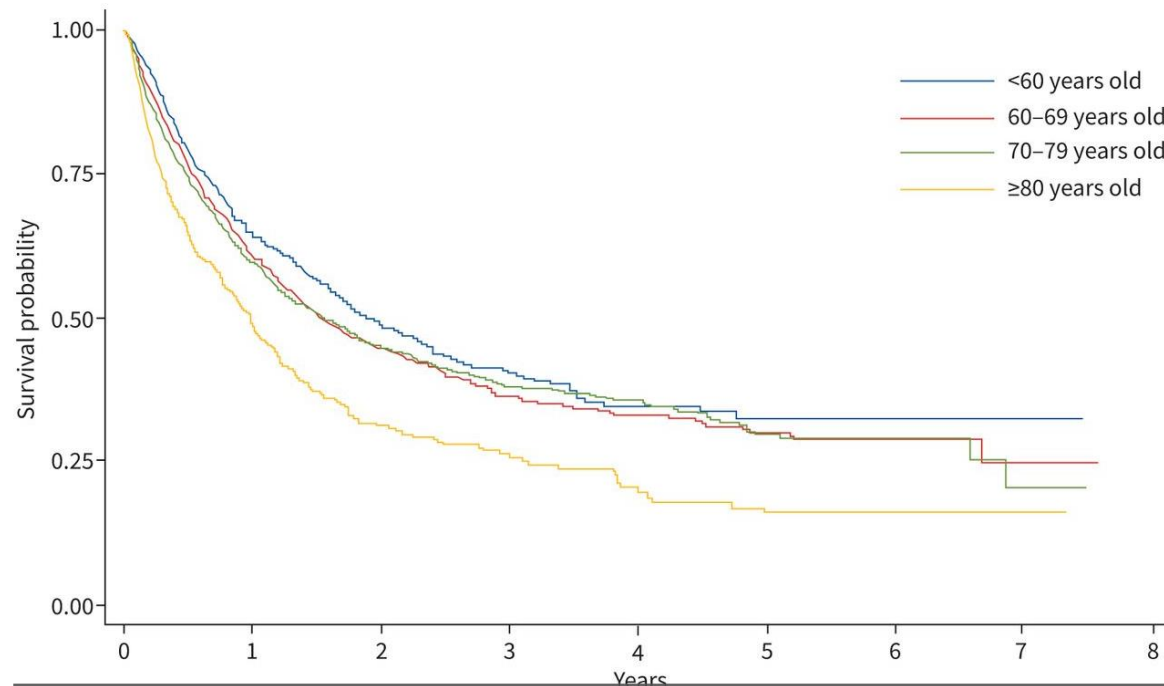
Age-specific incidence, 2019-2023



België

# 000 INLEIDING

## Slechtere overleving in oudere patiënten met longkanker

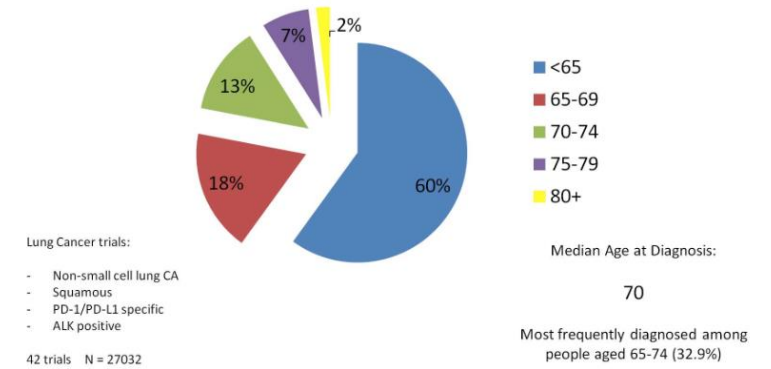


# 000 INLEIDING

Therapeutische beslissingen vaak complex

- Gebrek aan data uit klinische studies
  - Jonge en fitte patiënten
  - Enkel overleving als eindpunt
- Zeer heterogene populatie
  - Frailty, orgaan functie, co-morbiditeiten, polyfarmacie
  - Levensverwachting zonder kanker
  - Wensen en verwachtingen
- Gevaar voor onderbehandeling (ageism) en overbehandeling (toxiciteit)

Lung Cancer Patients Enrolled on Registration Trials Supporting FDA Approval

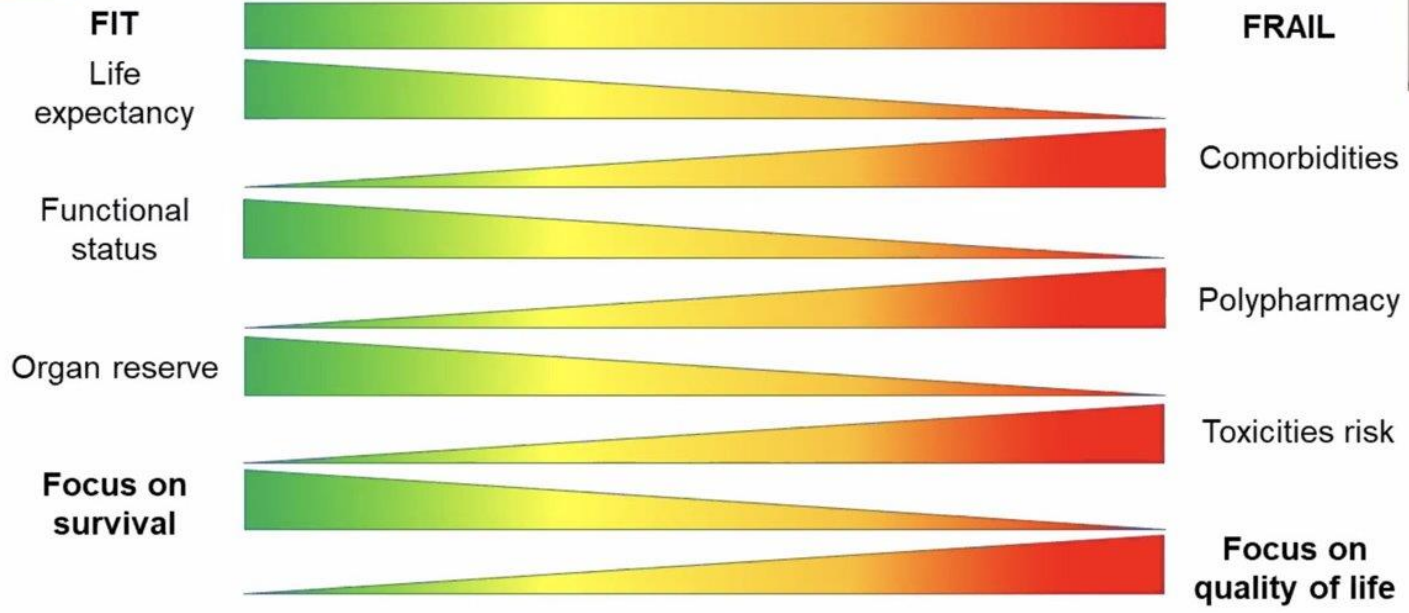


# 000 INLEIDING

## Older adults are heterogeneous

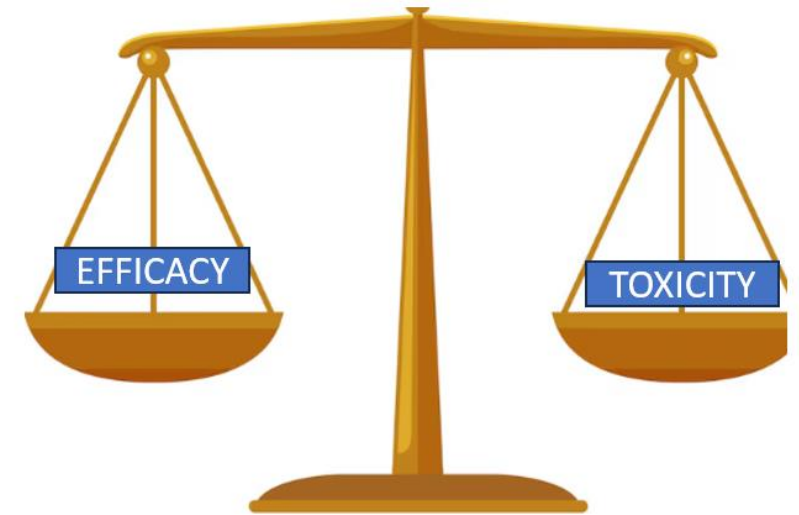


Cancer  
Comorbidities  
Health behaviours  
Access to healthcare  
Geographical location  
Social support



## 000 INLEIDING

- Is een bepaalde behandeling efficiënt in ouderen?
  - Chemotherapie
  - Immunotherapie? Gezien immunosenescentie
  - Doelgerichte therapie?
- Wat is de toxiciteit van een behandeling bij ouderen?
  - Risico? Hoger of niet dan bij jongeren? Kan men dit inschatten?
  - Gevolgen van toxiciteit?
- Wat verwachten we van een behandeling bij ouderen?
  - Levensverlenging?
  - Verbetering levenskwaliteit?
  - Behoud van functionaliteit?



Belang van shared decision making

# 000 INLEIDING



## SIOG 2025 Annual Conference

**"Bridging Research and Clinical Practice in Geriatric Oncology"**

## 000 SELECTIE VAN SIOG SESSIES

1. Geriatisch assessment in de praktijk
2. Screening en behandeling van longkanker
3. Beweging bij ouderen met kanker
4. Voeding bij ouderen met kanker



# INTEGRATIE VAN GERIATRISCH ASSESSMENT IN DE PRAKTIJK

## ●●● COMPREHENSIVE GERIATRIC ASSESSMENT

*“een multidimensionele evaluatie van de **algemene gezondheidstoestand** maar ook van de **functionele, cognitieve, sociale en psychologische** parameters bij oudere personen”*



# ●●● COMPREHENSIVE GERIATRIC ASSESSMENT

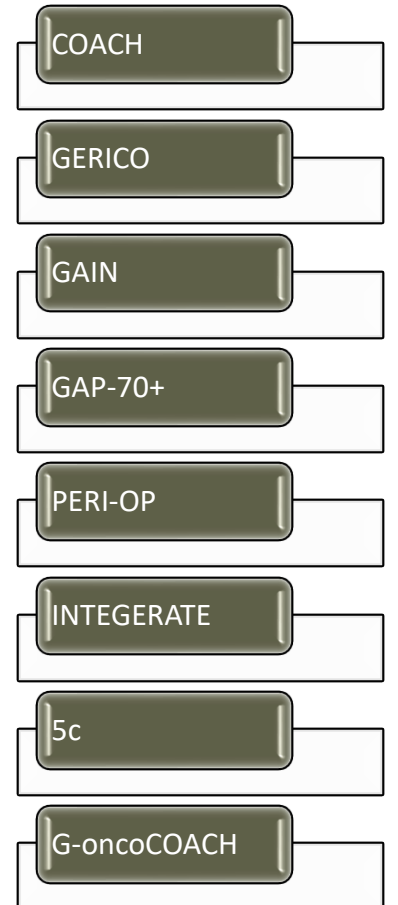
## ➤ ASCO richtlijnen

- Alle oudere (65+) patiënten met kanker die in aanmerking komen voor systemische therapie moeten een geriatrisch assessment (GA) krijgen en in geval van geïdentificeerd probleem een geriatrisch gerichte aanpak in hun zorgplan.
  - Resultaten GA moeten de therapeutische beslissing mee sturen en aanleiding geven tot gerichte geriatrische interventies
- GA moet alle domeinen gelinkt met veroudering omhelzen
- Levensverwachting moet ingeschat worden
- De resultaten van het GA moeten leiden tot een gepersonaliseerd en geïntegreerd zorgplan



# COMPREHENSIVE GERIATRIC ASSESSMENT

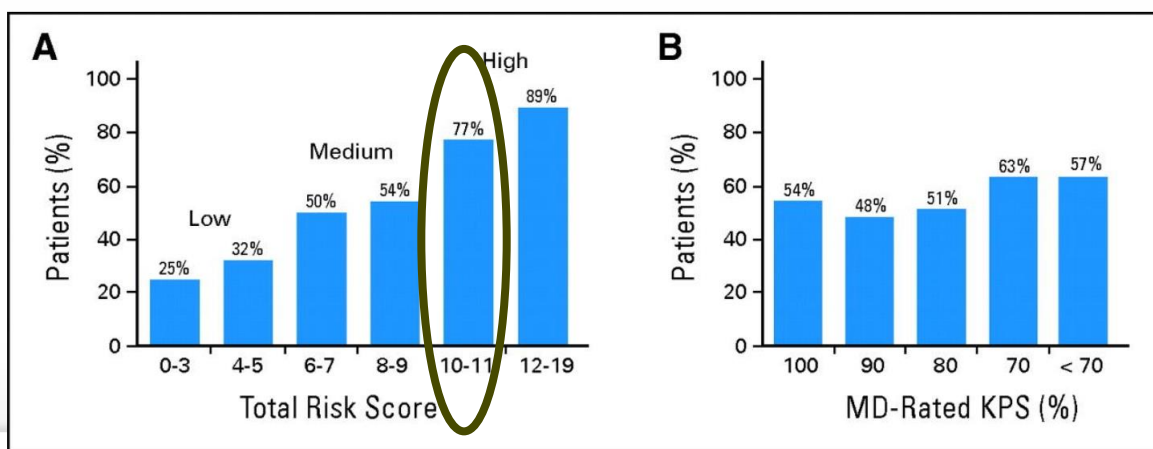
1. Detecteert vooraf ongekennde geriatrische problemen
2. Beïnvloedt therapiebeslissingen
3. Mogelijkheid tot geriatrische interventies
4. Prognostische waarde voor o.a. overleving
5. Predictieve waarde voor o.a. toxiciteit, complicaties na chirurgie, functionele status...
6. Verbeterde communicatie / gedeelde besluitvorming proces
7. Vermindert chemotherapie-gerelateerde toxiciteit
8. Verbetert uitkomsten gerelateerd aan functionele status
9. Verbetert de kans om de therapie te vervolledigen
10. Verbetert kwaliteit van leven





# CGA EN CHEMOTHERAPIE GERELATEERDE TOXICITEIT

Totale score casus: 16



**Table 5. Predictive Model**

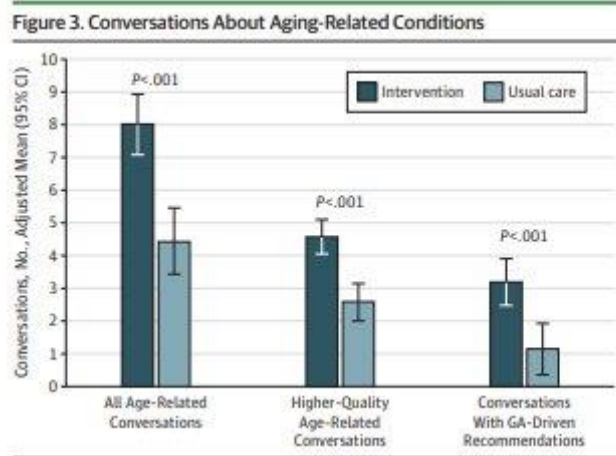
Risk Factor	Prevalence		Grades 3 to 5 Toxicity		OR	95% CI	Score
	No.	%	No.	%			
Age $\geq$ 72 years	270	54	163	60	1.85	1.22 to 2.82	2
Cancer type GI or GU	185	37	120	65	2.13	1.39 to 3.24	2
Chemotherapy dosing, standard dose	380	76	204	54	2.13	1.29 to 3.52	2
No. of chemotherapy drugs, polychemotherapy	351	70	192	55	1.69	1.08 to 2.65	2
Hemoglobin < 11 g/dL (male), < 10 g/dL (female)	62	12	46	74	2.31	1.15 to 4.64	3
Creatinine clearance (Jelliffe, ideal weight) < 34 mL/min	44	9	34	77	2.46	1.11 to 5.44	3
Hearing, fair or worse	123	25	76	62	1.67	1.04 to 2.69	2
No. of falls in last 6 months, 1 or more	91	18	61	67	2.47	1.43 to 4.27	3
IADL: Taking medications, with some help/unable	39	8	28	72	1.50	0.66 to 3.38	1
MOS: Walking 1 block, somewhat limited/limited a lot	109	22	69	63	1.71	1.02 to 2.86	2
MOS: Decreased social activity because of physical/emotional health, limited at least sometimes	218	44	126	58	1.36	0.90 to 2.06	1

Abbreviations: GU, genitourinary; IADL, instrumental activities of daily living; MOS, Medical Outcomes Study; OR, odds ratio.

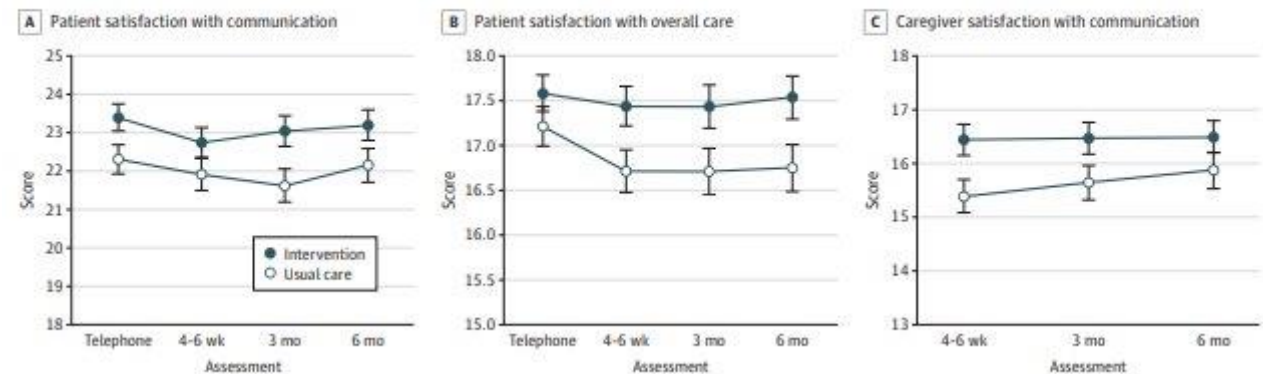
# ●●● RCT: COACH STUDIE

## ➤ Verbetering van de communicatie

- Patiënten 70+, met gevorderde kanker, gepland voor palliatieve chemotherapie, ten minste 1 abnormaal domein op GA
- Verbeterde communicatie rond ouderdomsgebonden problemen en mogelijke impact op kanker en zijn behandeling



**Figure 2. Patient and Caregiver Satisfaction**



# 000 RCT: GAP70+ EN GAIN STUDIE

## ➤ Verminderen van de toxiciteit

- Afname in ernstige chemotherapie gerelateerde toxiciteit
  - GAP70+: 51 vs 71%,  $p=0.0001$ , vnl niet hematologisch zoals vermoeidheid, gastrointestinale klachten, infecties
  - GAIN: 50 vs 60%,  $p=0.02$
- In GAP70+ studie: meer dosisreducties bij start
  - Minder nood aan dosisreducties tijdens de behandeling
  - Zelfde overleving!

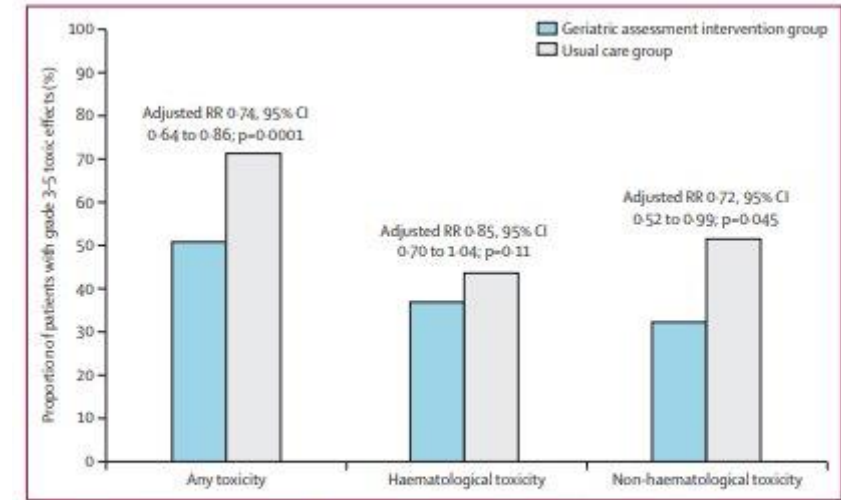


Figure 2: Prevalence of any grade 3-5 Common Terminology Criteria for Adverse Events toxic effects over 3 months  
RR=risk ratio.

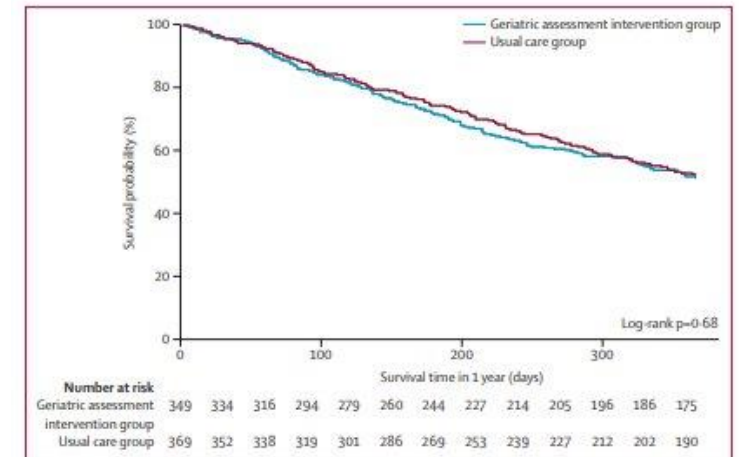


Figure 4: Survival over 1 year by study group

# 000 RCT: INTEGERATE

## ➤ Verbetering van de levenskwaliteit

- HRQOL neemt af tijdens de behandeling maar minder in de groep patiënten met CGA
- Grootste voordeel in patiënten die baseline een intermediaire score hadden
- Ook minder spoedpresentaties en minder ongeplande hospitalisaties
- Zelfde overleving

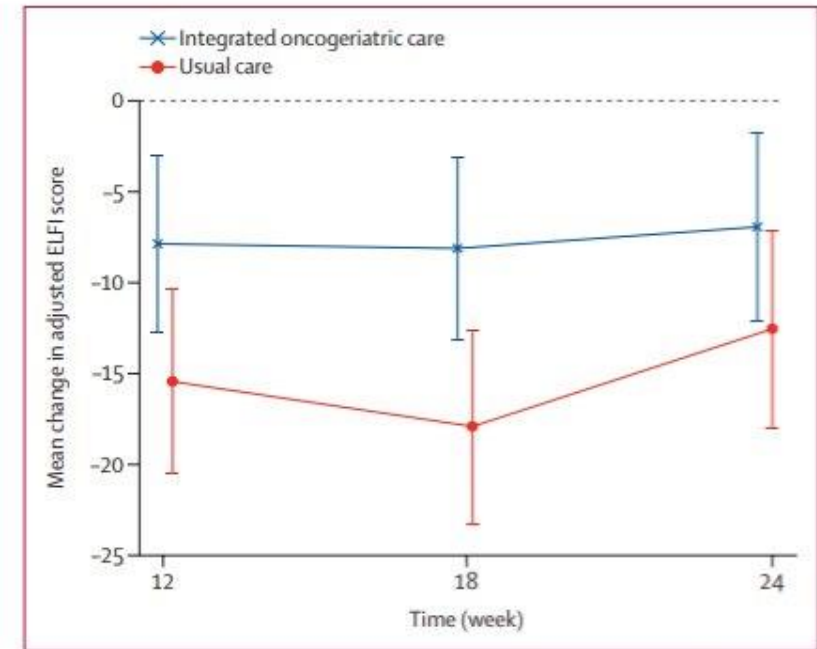
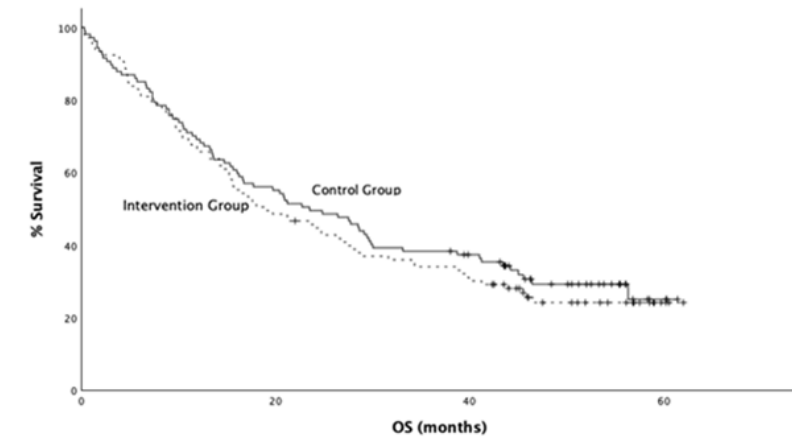
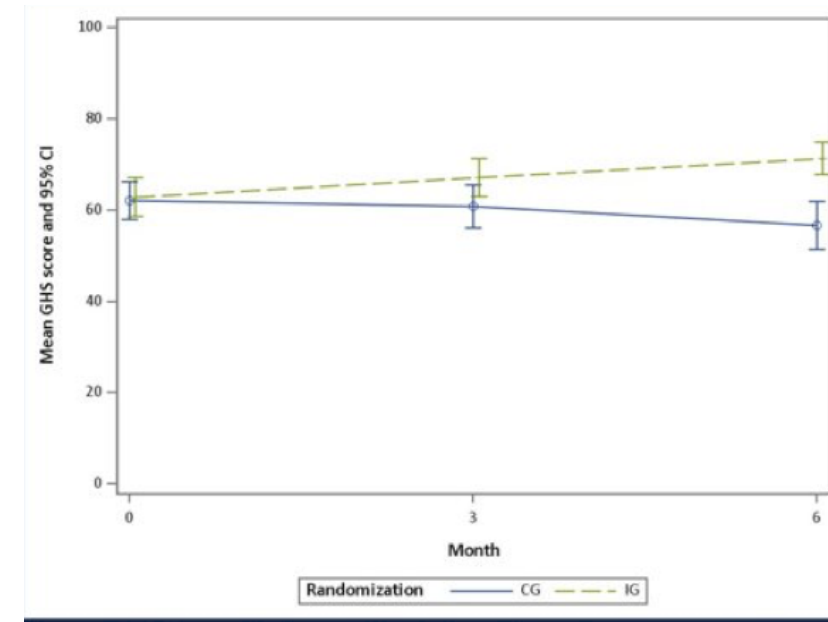


Figure 2: Mean change in adjusted ELFI scores from baseline to 12, 18, and 24 weeks by study group in the intention-to-treat population. Negative change indicates worsening function. ELFI=Elderly Functional Index.

# ●●● RCT: G-ONCOCOACH

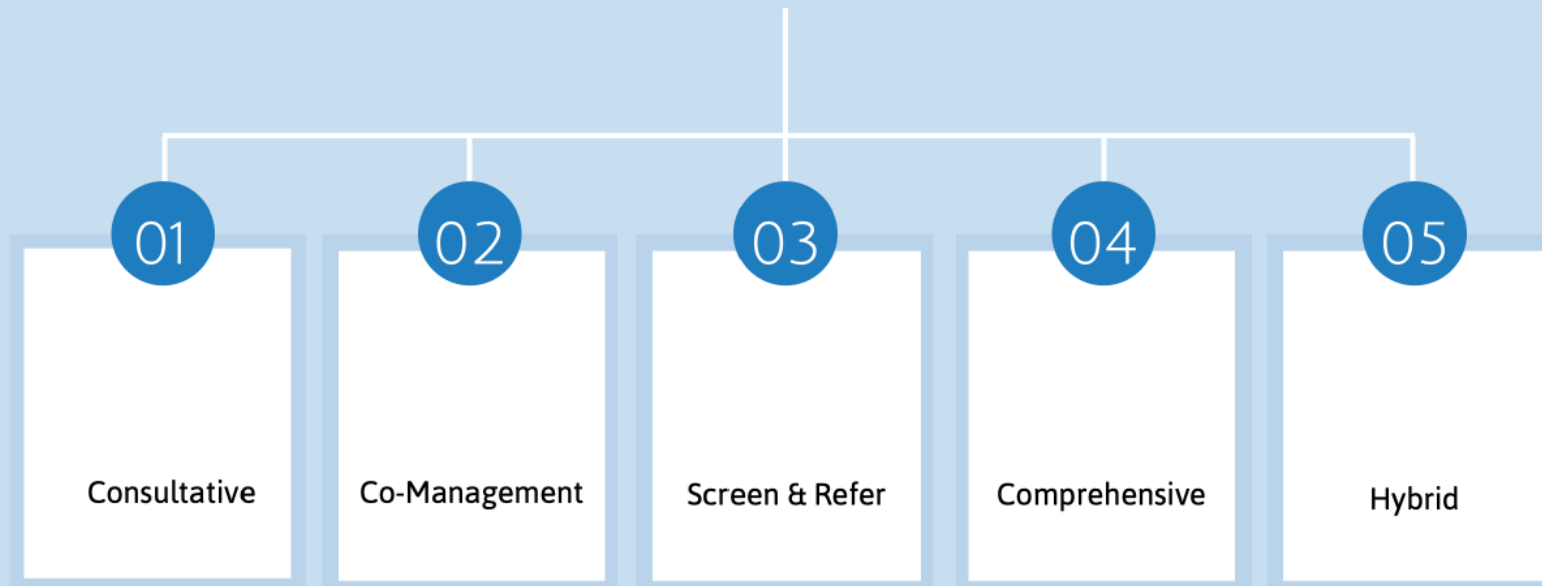
## ➤ Verbetering van de levenskwaliteit

- Betere levenskwaliteit na 6 maand in de CGA groep met een gemiddeld verschil van 10.9 punten,  $p=0.003$
- Geen verschil in overleving: mediaan 23.5 versus 18.8 maand  $p=0.473$
- Geen verschil in graad 3/4 toxiciteit voor de totale populatie 45 vs 40%;  $p=0.474$ 
  - Maar wel significant minder toxiciteit voor patiënten met risicoprofiel volgens screening met G8 die chemotherapie kregen 56 vs 36%;  $p=0.033$
- Geen verschil in ongeplande hospitalisaties 53 vs 46%;  $p=0.271$



## CGA IN DE PRAKTIJK

# OVERVIEW OF MODELS



### WHAT IS A CONSULTATIVE MODEL?

- Referral-based, episodic geriatric/GA consultation
- Oncology team retains primary responsibility for treatment
- GA informs decisions; oncogeriatric team not always involved long-term
- Multidisciplinary, typically half-day visits
- Written recommendations to the oncology team
- Follow-up often limited or optional

## CGA IN DE PRAKTIJK

### WHAT IS A CO-MANAGEMENT MODEL?

- Geriatric and oncology teams share ongoing responsibility
- Involvement spans pre-treatment, inpatient/operative, and early follow-up
- GA findings incorporated into tumour boards and care plans
- Common contexts: surgical oncology wards or dedicated units

### WHAT IS A SCREENING & REFERRAL MODEL?

- Systematic screening of older adults (age cut-offs vary)
- Positive screen → referral for CGA and/or geriatric input
- Often tumour-group-specific pathways
- Enables targeting of limited geriatric capacity
- Popular in resource limited and high volume settings

## CGA IN DE PRAKTIJK

### COMPREHENSIVE GERIATRIC ONCOLOGY MODELS

- Geriatric oncology embedded across the care continuum
- Multiple settings: inpatient, outpatient, home, assisted living
- Full CGA and multidomain interventions standardised
- Often linked to research and training infrastructure

## CGA IN DE PRAKTIJK

### WHAT DO WE MEAN BY 'HYBRID'?

- Combine elements of consultative and screening models
- GA performed by trained oncology APP or nurse
- Embedded geriatric workflows within oncology clinics
- Use telehealth and digital tools for reach

## CGA IN DE PRAKTIJK

### WHAT THESE MODELS TELL US

**GEEN UNIFORM MODEL**  
Aangepast aan de setting  
binnen het ziekenhuis

- No single “right” model – structures are adapted to context and resources
- CGA/GA, MDT decision-making and some screening are non-negotiable core elements
- Co-management and comprehensive models deepen impact but require more resources
- Hybrid models and digital tools are common strategies for scalability

## CGA IN DE PRAKTIJK

### CHOOSING AND ADAPTING A MODEL LOCALLY

- Start by clarifying goals: decision support only, or full co-management?
- Map local workforce and IT capacity (geriatricians, nurses, EMR)
- Consider phased approaches:

Consultative clinic → add screening → move toward hybrid/co-management  
Build in data collection from the outset



# SCREENING EN BEHANDELING VAN NSCLC

## 000 SCREENING

SIOG Expert Consensus Recommendations – Steimer D et al . – Submitted JTO

**Guideline #1: Screening with LDCT detects earlier stage lung cancer and reduces cancer related mortality in high-risk patients.**

- NSLT studie (50-74j; 5% 70-74), NELSON studie (55-74j; 8,8% 70-74), MILD studie (49-75j; <4% 70-75)

**Guideline #2: Older patients benefit from lung cancer screening and chronologic age should not be an exclusion criteria from LCS programs.**

- Hogere long kanker incidentie in >65 jaar (NSLT studie)
- Verbeterde behandeling voor vroegtijdige stadia

## 000 SCREENING

SIOG Expert Consensus Recommendations – Steimer D et al . – Submitted JTO

### **Guideline #3: Patient preferences and goals of care should be prioritized when discussing lung cancer screening.**

- Voor en nadelen van screening bespreken
- Fitheid voor oppuntstelling alsook voor eventuele behandeling
- Wensen en verwachtingen, gezondheidsdoelstellingen

### **Guideline #4: Geriatric assessment tools can help guide decision making for initial and continued LCS screening in older patients.**

- Fitte patiënten zouden in aanmerking moeten komen voor screening indien dit overeenkomt met hun wensen en gezondheidsdoelstellingen

➤ Screening zolang er geen significante verandering is in hun gezondheid

## 000 SCREENING

SIOG Expert Consensus Recommendations – Steimer D et al . – Submitted JTO

**Guideline #5: Older patients with suspicious nodules on LDCT should undergo additional workup and optimal management discussed in a MDTB**

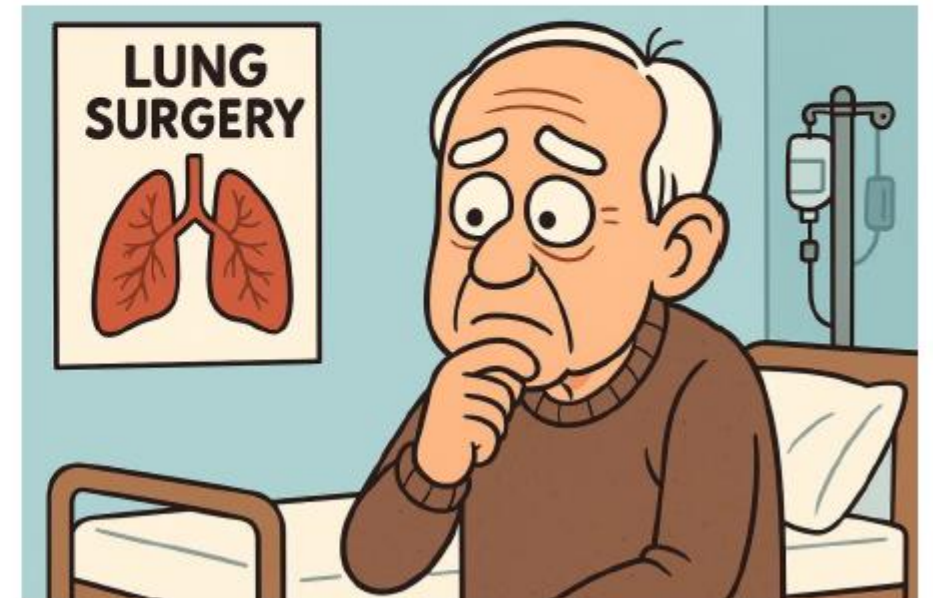
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## HEELKUNDE VOOR RESECEERBAAR NSCLC

- Evidence in elderly patients ( $>70$  or  $\geq 80$ ) is encouraging but less definitive
- Many cohort studies show that sublobar resections in older/frail patients.
  - comparable survival
  - better functional outcomes

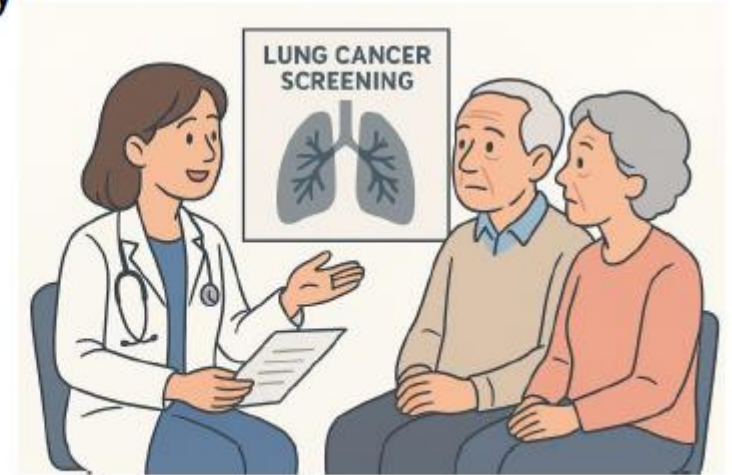
BELANG VAN : PATIENT SELECTIE

VOORKEUR VOOR MINIMAAL INVASIEF: VATS en Robotic



# HEELKUNDE VS RADIOTHERAPIE VOOR RESECEERBAAR NSCLC

- SBRT may achieve survival comparable to surgery
  - Carefully selected, small tumors
    - fewer short-term side effects
  - Comorbidity / frailty tilt risk–benefit away from surgery
- Shared decision-making is essential
  - Trial underpowering
  - Persistent selection biases



# ●●● DOELGERICHTE THERAPIE IN METASTATISCH NSCLC

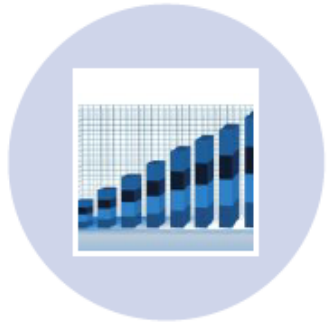
## ➤ SIOG review in $\geq 70$ jaar

- Efficiëntie gelijkaardig in (fite) ouderen vs jongeren
- Toxiciteit gelijkaardig maar hoger impact (valrisico, orgaandysfunctie, ...)
- Belangrijke gaten in kennis: levenskwaliteit, functioneren, geriatrische eindpunten

## ➤ Aanbevelingen

- Leeftijd is geen exclusie voor doelgerichte therapie
  - Beslissingen afhankelijk van CGA (fitheid, orgaan reserve, ...) en wensen
  - Toxiciteitsmonitoring bvb QTc bij osimertinib
  - Altijd kijken naar drug-drug interacties

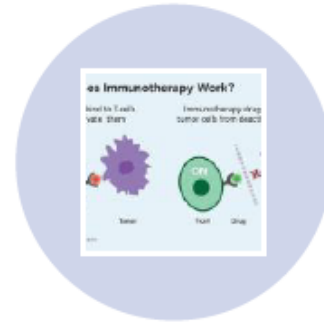
# ●●● IMMUNOTHERAPIE IN METASTATISCH NSCLC



META-ANALYSES SHOW ICIS IMPROVE OS VERSUS CHEMOTHERAPY WITH SIMILAR RELATIVE BENEFIT IN OLDER ADULTS.



TOXICITY PROFILE IS GENERALLY MORE FAVOURABLE THAN CHEMOTHERAPY, ESPECIALLY FOR HAEMATOLOGIC TOXICITY.



SINGLE-AGENT PD-1/PD-L1 IS ATTRACTIVE FOR PD-L1-HIGH, COMORBID OR FRAIL PATIENTS.

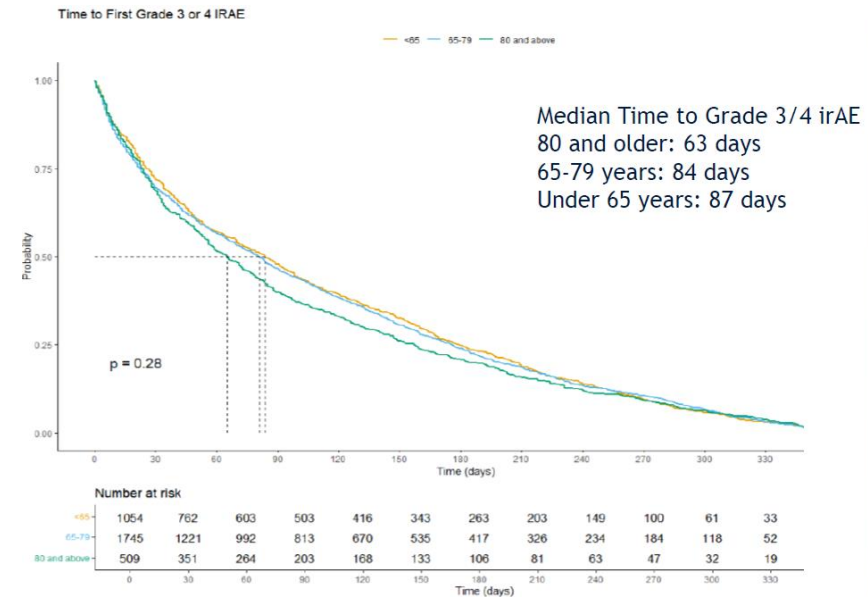
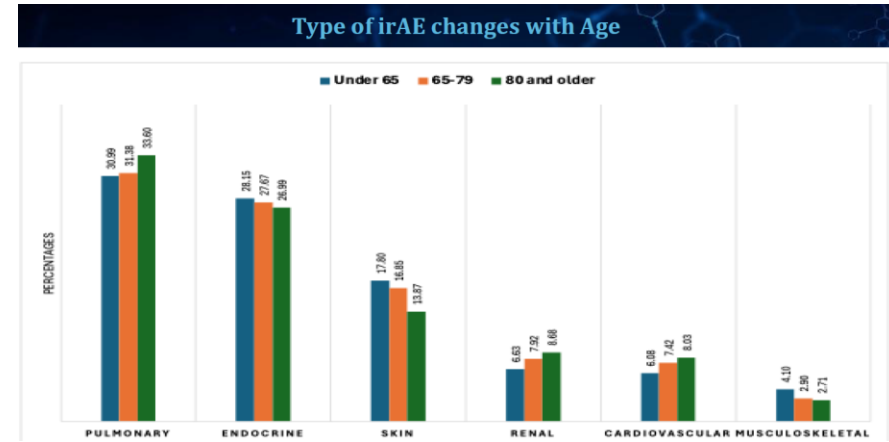


BE VIGILANT FOR IMMUNE-RELATED AES IN THE VERY OLD AND THOSE WITH UNDERLYING AUTOIMMUNITY OR ORGAN DYSFUNCTION.

9. Nishijima TF et al. *JAMA Oncol.* 2016;2:1167–73. 10. Elias R et al. *J Thorac Oncol.* 2021;16:196–206.

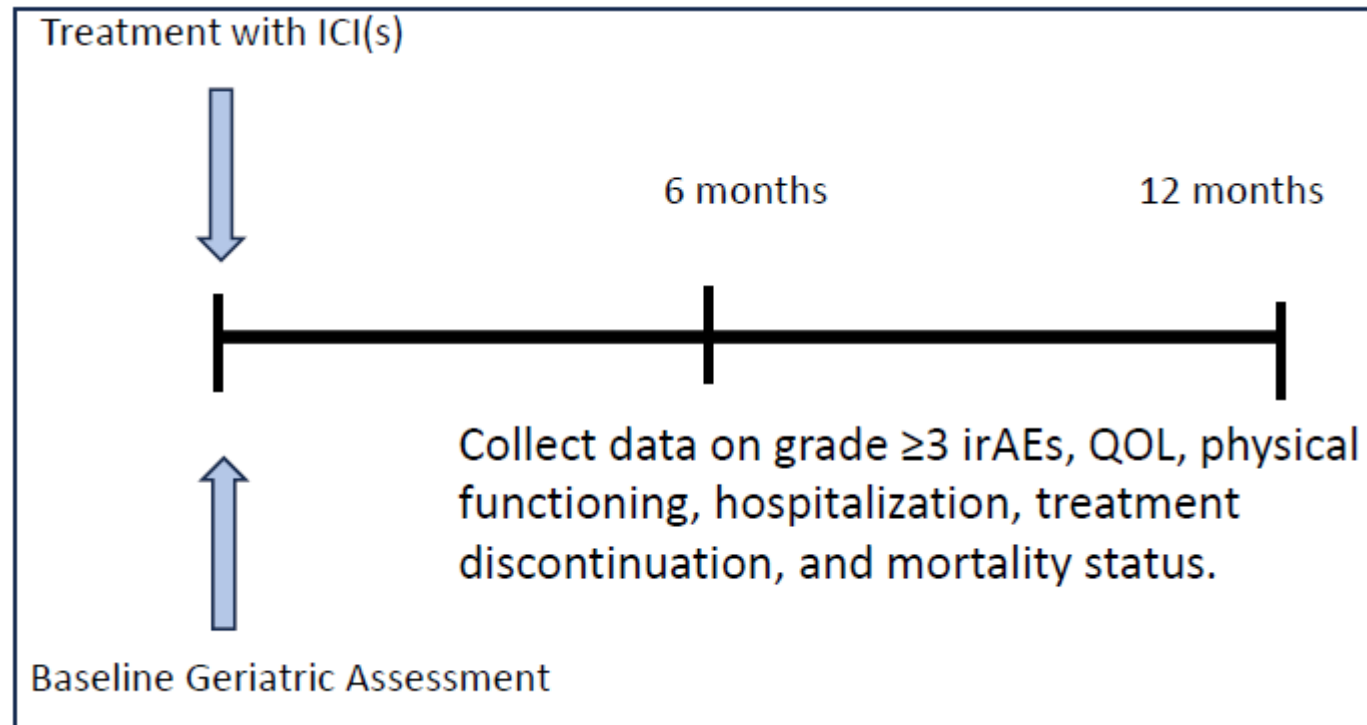
# AGE SPECIFIC RISKS OF irAEs

- Retrospectieve analyse van grote US databank
  - N= 96,067 ptn waarvan 51,111 tussen 65-79j en 12,095 ≥80j
- Meerderheid immuuntherapie monotherapie, +/- 4% ipi/nivo
- +/- 52.1% irAEs
  - 50.9% bij <65j; 52.6% bij 65-79j en 52.9% bij 80+
  - Risico lijkt toch wat toe te nemen met de leeftijd
- Type irAEs lijkt wat anders ifv de leeftijd
  - Meer pulmonaal, cardiaal en renaal
  - Minder huid tox
- irAEs treden vroeger op bij ouderen
  - Nauwe monitoring in de eerste 3 maand



# IMPACT VAN irAES OP QOL EN FYSIEK FUNCTIONEREN

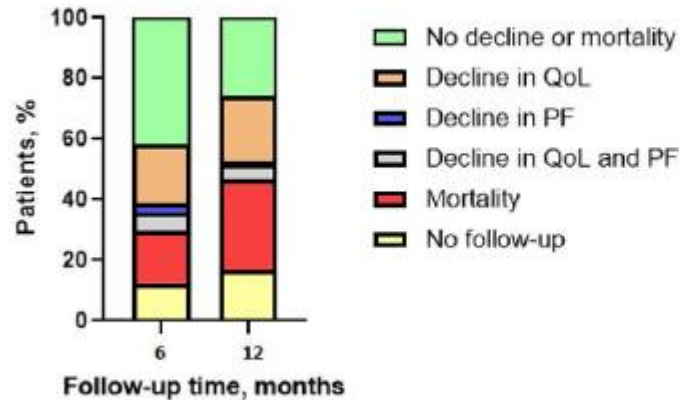
- Data uit 2 prospectieve studies in Nederland: TENT en IMAGINE
  - ≥65j met soliede tumor en gepland voor behandeling met ICIs



# IMPACT VAN irAES OP QOL EN FYSIEK FUNCTIONEREN

- N= 169 pts; mediane leeftijd 73j; 58% frail

Outcomes among all patients



Unfavorable outcome

- 6 months: 45.6%
- 12 months: 56.2%

Fig. 1. Comparison of the composite endpoint at 6 and 12 months among all patients.

- Frailty en niet de aanwezigheid van irAEs was geassocieerd met achteruitgang in QoL, fysiek functioneren en mortaliteit
- Patiënten met frailty werden ook frequenter gehospitaliseerd, maar niet omwille van irAEs

# 000 RICHTLIJNEN VOOR irAES AANPAK BIJ OUDEREN

## Management of immune checkpoint inhibitor-associated toxicities in older adults with cancer: recommendations from the International Society of Geriatric Oncology (SIOG)



*Colm Mac Eochagain, Nina Rosa Neuendorff, Karolina Gente, Jan Leipe, Marthe Verhaert, Christine Sam, Nienke de Glas, Sindhuja Kadambi, Beverly Canin, Fabio Gomes, Lore Decoster, Beatriz Korc-Grodzicki, Siri Rostoft, Nicolò Matteo Luca Battisti\*, Hans Wildiers\**

- Impact van irAEs hoger: functioneren, meer hospitalisaties
- Behandeling irAEs gelijkaardig aan jongeren
  - Enkele kleinere nuances bvb tragere opstart LT4, belang van hydratatie bij diarree
- Risico's corticosteroiden: infecties, sarcopenie, delirium, hyperglycemie



# CHEMOTHERAPIE +/- IMMUNOTHERAPIE IN METASTATISCH NSCLC

- Toxiciteit chemotherapie neemt toe met de leeftijd
  - Hoger risico op neutropenie, vermoeidheid, neuropathie
  - Meer nood aan dosisreducties
  - Strategie gebaseerd op CGA en CARG risico analyse alsook wensen patiënt
    - Fit: standaard doublet chemotherapie +/- ICI
      - Best geen cisplatinum: belangrijke toxiciteit
      - Eventueel met dosis reductie vanaf cyclus 1 (GAP70+)
    - Kwetsbaar/hog risico: Dosisreductie of single agent
      - Eventueel voor Sq NSCLC carbo/paclitaxel wekelijks 3w/4
      - IPSOS studie: enkel ICI (atezo) niet meer terugbetaald
    - Frail: BSC



# BEWEGING IN OUDEREN MET KANKER

# ROL VAN BEWEGING IN PATIËNTEN MET KANKER

**SIOG**<sup>®</sup>  
INTERNATIONAL SOCIETY  
OF GERIATRIC ONCOLOGY

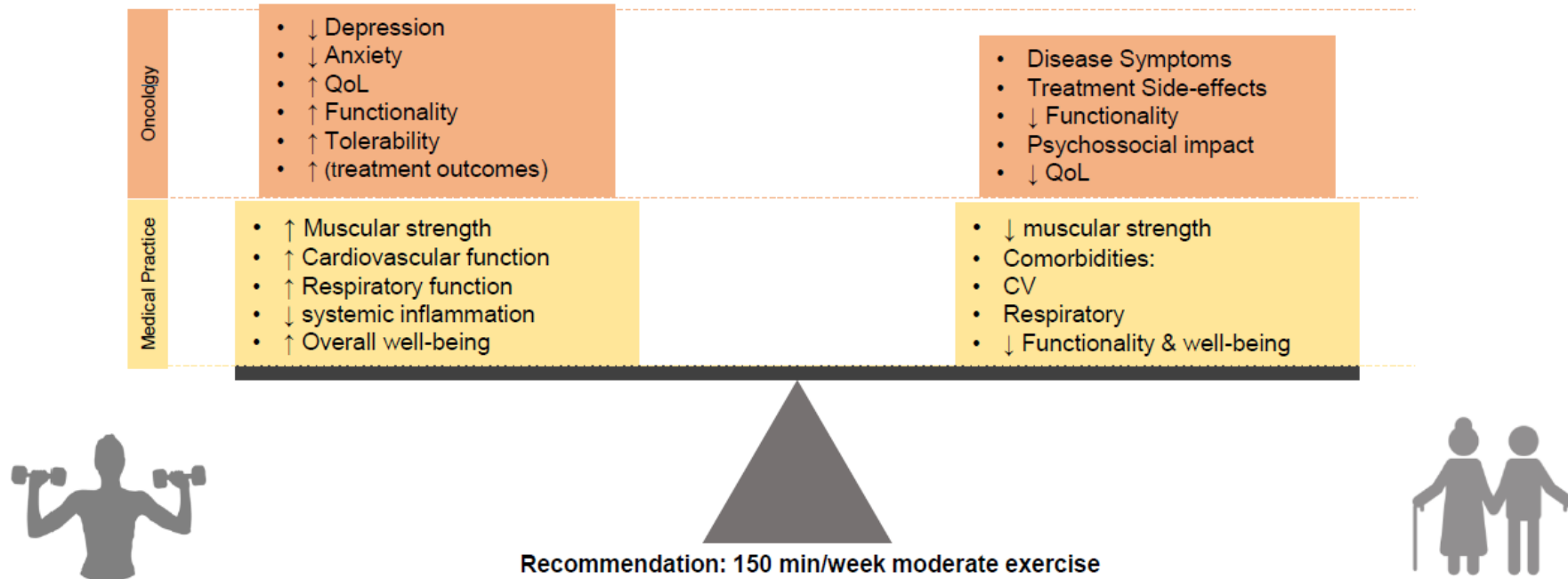
**25**  
YRS

**2025**  
GHENT  
BELGIUM  
20-22 NOV



**Exercise during and after treatment**

## The role of Exercise in Patients with Cancer during and after treatment



Bigaran, A., et al. (2025). JAMA Network Open, 8(2)

Campbell KL, et al. Med Sci Sports Exerc 2019;51: 2375–90

Mikkelsen, et al. The Oncologist, 2022, 27, 67–78

Bergerot P. SIOG 2025

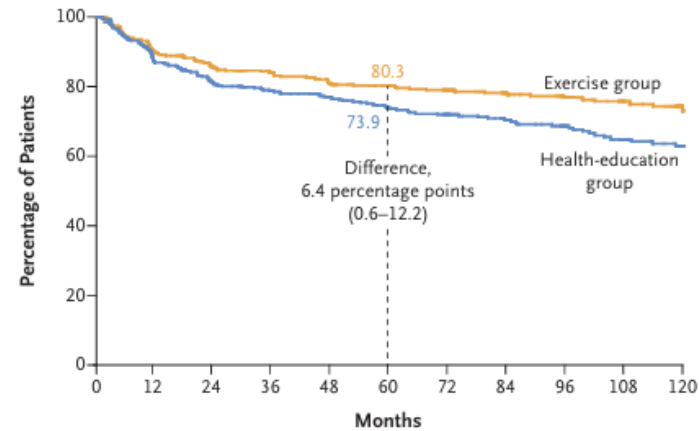
# 000 RCT BEWEGING IN CRC



## Structured Exercise after Adjuvant Chemotherapy for Colon Cancer

Courneya et al. N Engl J Med 2025

**A Disease-free Survival**

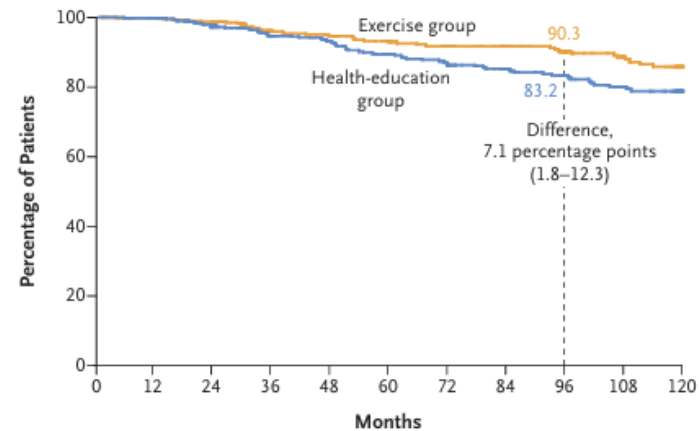


	Total Patients	Patients with Disease Recurrence, New Primary Cancer, or Death <i>no.</i>
Exercise Group	445	93
Health-Education Group	444	131

Hazard ratio, 0.72 (95% CI, 0.55–0.94)  
2-sided P=0.02

No. of Patients	445	378	336	301	278	254	229	190	159	119	58
Exercise group											
Health-education group	444	374	326	295	272	239	213	178	142	107	53

**B Overall Survival**



	Total Patients	Patients Who Died <i>no.</i>
Exercise Group	445	41
Health-Education Group	444	66

Hazard ratio, 0.63 (95% CI, 0.43–0.94)

# BEWEGING BIJ OUDEREN MET KANKER



## Study design

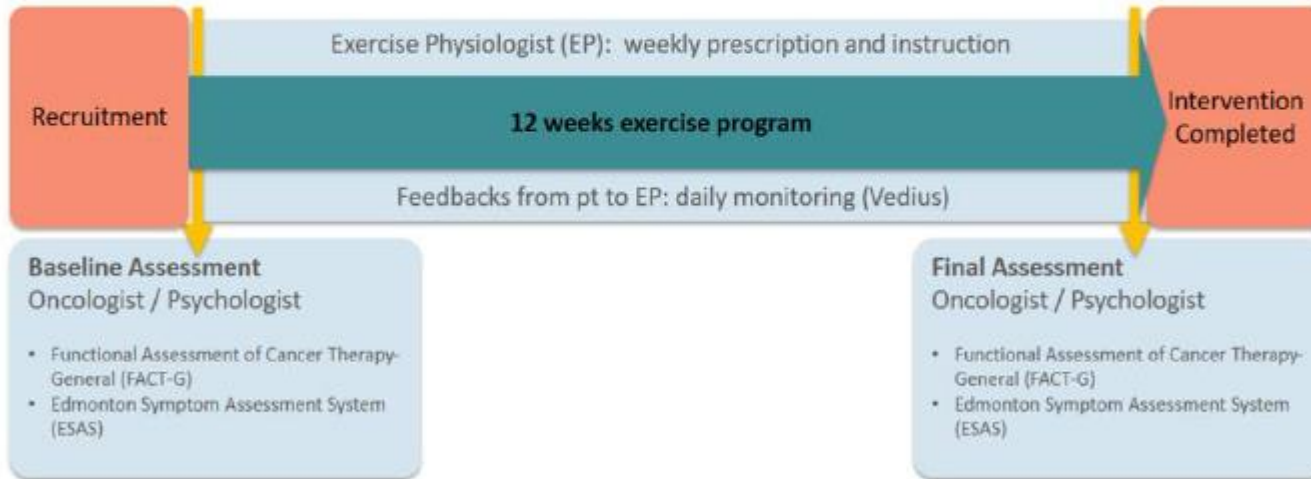
- Pilot, single arm study
- 12-week remote exercise program for older patients (65+ years) undergoing systemic treatment for cancer.
- **Primary endpoints:** impact of a 12-week supervised remote exercise program on healthrelated quality of life (HRQOL)
- **Secondary outcomes:** Feasibility and acceptability

Bergerot PG, et al. (2025). J Geriatr Oncol. 2025 Jun;16(5):102244.

# BEWEGING BIJ OUDEREN MET KANKER

## Study Design

- 1<sup>st</sup> appointment via Telehealth: Assessing patient conditions
- Personalized prescription plans
- Gradual intensity enhancement



## Exercise Prescription

### Physical Activity Prescribed

<b>Resistance exercise</b>	Warmup Lower limb Upper limb CORE
<b>Aerobic exercise</b>	Walking (running)
<b>Mobility exercise</b>	Activity mobility exercise control articular rotation (CARs)
<b>Note.</b>	Weeks 1-2 Monday, Wednesday, and Friday: Mobility Tuesday, Thursday, and Saturday: Aerobic Weeks 3-12 Monday, Wednesday, and Friday: Strength Tuesday, Thursday, and Saturday: Aerobic/Mobility

Bergerot PG, et al. (2025). J Geriatr Oncol. 2025 Jun;16(5):102244.



Research Paper

Journal of Geriatric Oncology 16 (2025) 102244

## Enhancing quality of life in older adults with cancer: Outcomes of a 12-week supervised remote exercise intervention

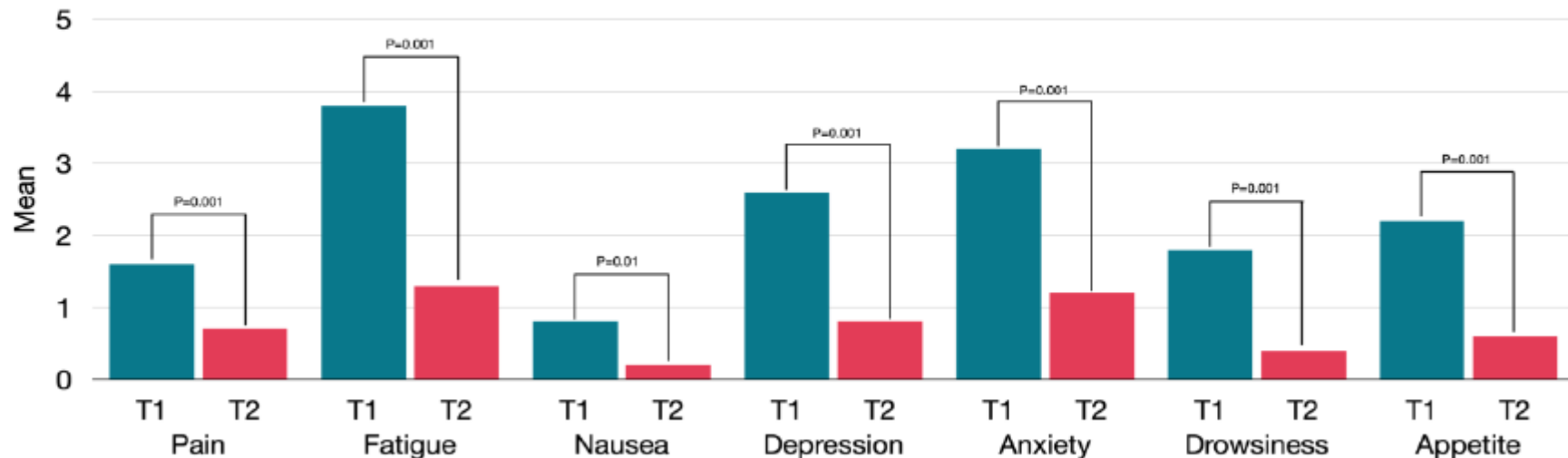
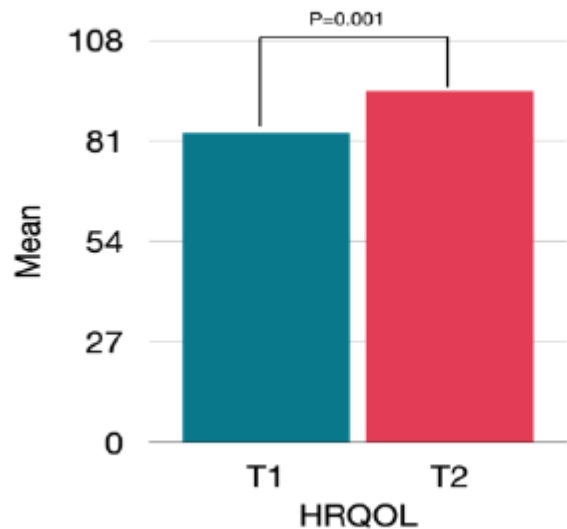
### Results

- 48 patients approached, 41 patients were enrolled
- High Adherence Rate: 87.8% with 72.2% retention.
- Program Satisfaction: 87.8% praised its convenience, flexibility, and supportive guidance.

### Adherence to 12-Week Program

26 patients for 12 weeks  
10 patients for 8 weeks  
5 patients < 8 weeks

Characteristics	N (%) / M (SD)
<b>Age [M(SD)]</b>	70 (7.4)
<b>Sex [N (%)]</b>	
Male	18 (43.9)
Female	23 (56.1)
<b>Marital Status [N (%)]</b>	
Single	2 (4.9)
Married	24 (58.5)
Divorced	5 (12.2)
Widowed	10 (24.4)
<b>Education [N (%)]</b>	
Elementary School	4 (7.3)
High School	15 (36.6)
College Degree	17 (41.4)
Post Graduation	5 (12.2)
<b>Type of Cancer [N (%)]</b>	
Breast	11 (26.8)
Genitourinary	9 (22.0)
Lung	7 (17.1)
Gastrointestinal	5 (12.2)
Others	9 (22.0)
<b>Disease Stage [N (%)]</b>	
III	2 (4.9)
IV	38 (97.6)





Research Paper

Journal of Geriatric Oncology 16 (2025) 102244

## Enhancing quality of life in older adults with cancer: Outcomes of a 12-week supervised remote exercise intervention

### Discussion ExlOnc Geri study

- Real-time monitoring
- Personalized exercise adaptation
- Continuous support
- Enhancing engagement among older adults with cancer
  
- Advantageous for patients facing mobility limitations

Telehealth and remotely delivered interventions are **feasible** and **beneficial** for older adults with cancer.

These programs can help overcome barriers such as travel difficulties and limited access to healthcare providers, by providing accessible, home- based exercise options

# BEWEGING BIJ OUDEREN MET (LONG)KANKER

## Challenges in Translating Exercise Interventions in Developing Countries: From Pilot Studies to Clinical Practice

### Patient-Related Barriers (The “Human” Challenge)

- **Physiologic frailty and comorbidities**
- Overlapping symptoms:
  - disease symptoms
  - treatment side effects
  - normal aging
- **Poor motivation**
- Psychological barriers (fear, depression, fatalism)

### Socioeconomic & Cultural Barriers

- Persistent **belief that “rest is best”** during cancer treatment
- Limited family/caregiver support (or active discouragement)
- **Transportation barriers**, long distances, work/family obligations
- **Poor long-term adherence** even when initial participation achieved
- Perceived benefits often outweighed by daily survival priorities

### Systemic & Economic Barriers

- **Costs** of supervised programs (staff, equipment, space)
- **Scarce infrastructure** and trained exercise professionals
- Limited funding for geriatric oncology & exercise research
- No reimbursement → programs remain research-only, non-sustainable
- Key question: **Who delivers? Who pays? Who ensures safety?**












# 000 AANBEVELING IVM BEWEGING BIJ OUDEREN MET KANKER

## CONSENSUS STATEMENT

### Exercise recommendations for older adults living with and beyond cancer: A consensus statement by the Advancing Capacity to Integrate Exercise Into the Care of Older Cancer Survivors expert panel

- Panel: oudere patiënten met kanker en mantelzorgers, experten
- 11 aanbevelingen

TABLE 1 Consensus-based exercise recommendations for older cancer survivors.

Exercise Domain	Consensus Statement
1 Medical evaluation	 For an older cancer survivor, additional medical evaluation beyond what is recommended in the current ACSM EGCS and NCCN guidelines is not required to begin an appropriately prescribed exercise program.
2 Exercise testing	 In addition to ACSM-recommended health-related fitness assessments to determine an exercise prescription, the following functional assessments are recommended for older cancer survivors: Timed Up and Go, Short Physical Performance Battery, and tests of static and dynamic balance.
3 Exercise prescription	 The exercise prescription for older cancer survivors should include balance training; an appropriate balance prescription is one or two sets of four to 10 different balance exercises at least 3 days per week.
4	 The exercise prescription for older cancer survivors should include flexibility training; an appropriate flexibility prescription is for stretches that target each of the major muscle-tendon units held to the point of mild discomfort and/or tightness for 30–60 s per stretch at least 2 and up to 7 days per week.
5 Exercise tolerance and safety	 The exercise professional should routinely monitor older cancer survivors for symptoms/conditions, including but not limited to the following: joint pain, fatigue, vertigo/dizziness/lightheadedness, nausea, palpitations, chest pain or heaviness, muscle pain or weakness, shortness of breath, and/or incontinence with movement.
6	 An exercise professional should consider the following environmental factors and instructional techniques to deliver safe and effective exercise for older cancer survivors: assess the environment for fall hazards, limit auditory and visual distractions, use appropriate cueing and feedback, demonstrate exercises and repeat instructions as needed, and educate participants about appropriate clothing, footwear, nutrition, and hydration.
7 Implementing prescriptions in practice	 A person who prescribes and delivers exercise to older cancer survivors should have empathy and patience and be able to appropriately modify and tailor exercises. It is strongly encouraged for people who prescribe and deliver exercise to older cancer survivors to gain experience, education, and/or advanced certification specific to exercise in older adults and/or cancer survivors.
8	 An exercise professional should consider the following when encouraging an older cancer survivor to engage in structured exercise training: behavioral techniques (i.e., goal setting and incentives), education about expected responses to exercise (i.e., delayed-onset muscle soreness), initial starting volume and progression (e.g., start low and go slow), individual circumstances, social support, cancer team support, caregiver support, and/or potential barriers to ongoing exercise.
9	 In an older cancer survivor who has significant deficits in strength, mobility, and/or balance, exercise programming should first focus on improving muscle strength, flexibility, and balance before moving on to improving aerobic capacity. In addition, exercise programming should include exercises that emphasize functional movement patterns (e.g., chair stands, stepping routines, walks with turns, etc.) as much as possible.
10	 In a supervised setting, the exercise professional should consider personal characteristics (e.g., age, comorbidities, polypharmacy, and physical and/or cognitive limitations) when determining the recommended degree of supervision (e.g., group size and instructor: participant ratio) during exercise.
11	 If unsupervised exercise is deemed unsafe, it is important to modify exercises and/or engage a caregiver, family member, or friend to assist the individual and/or provide supervised exercise.

# ●●● AANBEVELINGEN IVM BEWEGING BIJ OUDEREN MET KANKER

## EXERCISE PRESCRIPTION

Statement 3. The exercise prescription for older cancer survivors should include **balance training**; an appropriate balance prescription is 1-2 sets of 4-10 different balance exercises at least 3 days per week.

Statement 4. The exercise prescription for older cancer survivors should include **flexibility training**; An appropriate flexibility prescription is for stretches that target each of the major muscle-tendon units held to the point of mild discomfort and/or tightness for 30-60s per stretch, at least 2 and up to 7 days per week.

- Recommendations to avoid inactivity and engage in aerobic and resistance training should also be met
- Attention to patient burden; consider multi-component exercise

# ●●● AANBEVELINGEN IVM BEWEGING BIJ OUDEREN

## Special Considerations for Safe and Effective Delivery of Exercise for Older Cancer Survivors

### Reduce Fall Risk

Minimize fall risk with attention to proper lighting, changes in color/texture of flooring, removal of slip/trip hazards, spacing of equipment for safe ambulation

### Limit Distractions

Minimize noise and competing stimuli such as loud or off-tempo music. Minimize visual and environmental distractions (i.e., pets or clutter)

### Instructional Technique

Slower the pace of instruction. Use simple language / terms when teaching/cueing. Demonstrate movements first; repeat as needed



### Nutrition & Hydration

Consider a nutritional assessment; encourage 1g/kg PRO/day; encourage 48-60 oz water and increase intake in hot/dry climates

### Proper Exercise Gear

Encourage proper footwear (athletic / sturdy shoes; no sandals, slippers, loafers, etc). Educate about proper clothing and sun protection

### Temperature Control

Ensure proper climate control and ventilation in a class environment. Encourage layered clothing / proper outerwear and encourage proper hydration

## 000 AANBEVELINGEN IVM BEWEGING BIJ OUDEREN MET KANKER

Statement 5. The exercise professional should **routinely monitor** older cancer survivors for **symptoms/conditions** including, but not limited to the following: joint pain, fatigue, vertigo/dizziness/lightheadedness, palpitations, muscle pain or weakness, shortness of breath, and/or incontinence with movement.

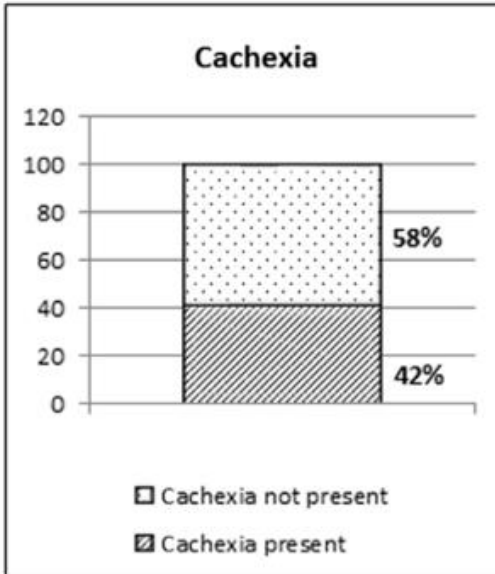
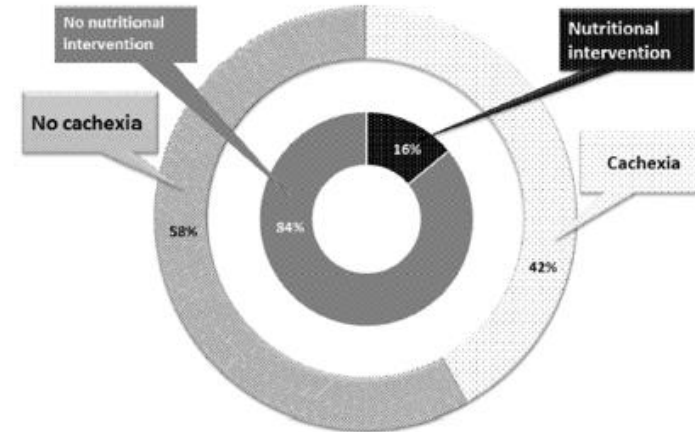
- Signs of poor tolerance can be used to modify exercise programming

Statement 9. In an older cancer survivor who has significant deficits in strength, mobility and/or balance, exercise programming should **first focus on improving muscle strength, flexibility and balance** before moving on to improving aerobic capacity. In addition, exercise programming should include exercises that emphasize **functional movement patterns** (e.g., chair stands, stepping routines, walks with turns, etc.) as much as possible.



# VOEDING BIJ OUDEREN MET KANKER

# VOEDING BIJ OUDEREN MET KANKER



- **9694** patient files
- **118** new diagnosis
- **42 %** cachexia
- **Nutritional intervention by oncologist: 16%**

# VOEDING BIJ OUDEREN MET KANKER

## RESEARCH

### Malnutrition prevalence in cancer patients in Belgium: The ONCOCARE study

Marika Rasschaert<sup>1</sup> · Pieter Vandecandelaere<sup>2</sup> · Stéphanie Marechal<sup>3</sup> · Randal D'hondt<sup>4</sup> · Christof Vulsteke<sup>5,1</sup> · Marie Mailleux<sup>6</sup> · Wendy De Roock<sup>7</sup> · Joanna Van Erps<sup>8</sup> · Ulrike Himpe<sup>2</sup> · Marc De Man<sup>9</sup> · Geertrui Mertens<sup>10</sup> · Dirk Ysebaert<sup>11</sup>



- Real life cohort study Belgium
- Malnutrition : underdiagnosed
- 50% at risk (NRS-2002)
- 25% malnourished (GLIM)
- Largely underestimated by oncologist

Supportive Care in Cancer (2024) 32:135

# VOEDING BIJ OUDEREN MET KANKER

## Risicofactoren op ondervoeding bij ouderen

<b>Physiologic</b>	<b>Pathologic</b>	<b>Sociologic</b>	<b>Psychologic</b>
Decreased taste	Dentition	Ability to shop for food	Depression
Decreased smell	Dysphagia, swallowing problems	Ability to prepare food	Anxiety
Dysregulation of satiation	Diseases (cancer, CHF, COPD, diabetes, ESRD, thyroid)	Financial status low socioeconomic	Loneliness
Delayed gastric emptying	Medications (diuretic, antihypertensive, dopamine agonist, antidepressant, antibiotic, antihistamine)	Impaired activities of daily living skills	Emotionally stressful life events
Decreased gastric acid	Alcoholism	Lack of interactions with others at mealtime	Grief
Decreased lean body mass	Dementia		Dysphoria

CHF = congestive heart failure; COPD = chronic obstructive pulmonary disease; ESRD = end-stage renal disease.

# ●●● VOEDING BIJ OUDEREN MET KANKER

## ➤ **Bijkomende risicofactoren**

- Rol van kanker: compressie slokdarm
- Rol van vermoeidheid
- Rol van antikanker behandeling: oesofagitis, stomatitis, nausea, constipatie, ...

# VOEDING BIJ OUDEREN MET KANKER

- Nutritie is ook bij oudere patiënten met kanker een belangrijk probleem
  - Belgische studies:
    - 58% risico voor malnutritie en 15% malnutritie
    - 37% van de artsen waren niet op de hoogte van nutritionele problemen
    - 70% van de aanbevelingen waren voor nutritionele problemen en 43% vd interventies was doorverwijzing naar diëtiste
  - USA studie:
    - 49% had >3 kg gewichtsverlies laatste 6 maand
    - 42% malnutritie

## 000 VOEDING BIJ OUDEREN MET KANKER

- 'Frailty' en depressie predictief voor malnutritie
  - Nauwere opvolging nodig
- In een meta-analyse is de aanwezigheid van malnutritie bij oudere patiënten met kanker geassocieerd met een slechtere overleving
- Malnutritie heeft ook een invloed op de behandeling
  - Verminderde tolerantie, verhoogd infectie risico, verhoogd risico op operatieve complicaties



## TAKE HOME MESSAGES

## ●●● TAKE HOME MESSAGES

- Behandeling van kwetsbare ouderen met kanker is complex
- Maak gebruik van een Geriatrische Evaluatie
- Keuze van behandeling op basis van biologische leeftijd
- Impact van bijwerkingen mogelijks veel groter: be prepared!
- Aandacht voor beweging en voeding