The elderly, multi-morbid cancer patient – when use geriatricians

Matti S. Aapro
Genolier Cancer Center
Switzerland
The role of SIOG
International Society of Geriatric Oncology

IMPROVING THE EVIDENCE-BASE FOR TREATING OLDER ADULTS WITH CANCER

Work of SIOG and its members

Matti S. Aapro
Genolier Cancer Center
Switzerland
COI

Dr Aapro is a consultant for
Amgen, BMS, Celgene, GSK, Helsinn,
Hospira, JnJ Novartis, Merck, Merck Serono,
Pfizer, Pierre Fabre, Roche, Sandoz, Teva,
Vifor
and has received honoraria for lectures at
symposia of
Amgen, Bayer Schering, Cephalon, GSK,
Helsinn, Hospira, Ipsen, JnJ OrthoBiotech,
Kyowa Hakko Kirin, Merck, Merck Serono,
Novartis, Pfizer, Pierre Fabre, Roche,
Sandoz, Sanofi, Taiho, Teva, Vifor

No responsibility accepted for
involuntary errors or omissions.
The list may be incomplete, and does not reflect consultancy for
NGOs, Universities, Governmental agencies, and others
The worldwide population is aging

60 years or older

80 years or older

WHERE ARE THE ELDERLY

R. Audisio EORTC EGAM 2007

Department of Chronic Diseases and Health Promotion
Short history of cancer treatment in older patients

3. Balducci L. NCCN Clinical Practice Guidelines in Oncology Senior Adult Oncology November 1, 2006

National Cancer Institute and National Institute on Ageing sponsor a symposium Perspectives on prevention and treatment of cancer in the elderly

The Venice statement©
Cancer in the elderly: why so badly treated?

First edition of Comprehensive Geriatric Oncology released

US Geriatric Oncology Consortium founded to initiate trials and raise awareness of problems of elderly patients

National Comprehensive Cancer Network (NCCN) guidelines published practice guidelines for senior adult oncology

World Health Organization 58th General Assembly resolution on Strengthening Active and Healthy Ageing

Dr BJ Kennedy encouraged the study of ageing and cancer during the Presidential Address at ASCO 1988

First onco-geriatric guidelines published on the use of haematopoietic growth factors in elderly patients receiving cytotoxic chemotherapy

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Comprehensive Geriatric Assessment guidelines by the SIOG

3. Balducci L. NCCN Clinical Practice Guidelines in Oncology Senior Adult Oncology November 1, 2006
Growing interest has led to the formation of a geriatric oncology society, member of UICC and ECCO

SIOG/ISGO
President: S. Lichtman (USA)
President-elect: H. Wildiers (BE)
Past President: E. Brain (FR)
Treasurer: R. Kanesvaran (SIN)

www.sioog.org
Medical treatment of cancer: some specific issues for the older patient

- renal clearance: SIOG guidelines
- anemia: EORTC, ESMO and other guidelines
- febrile neutropenia: EORTC, ESMO and other guidelines
- issues in palliation (confusional status with morphine),

The management of cancer pain in the elderly

Damien Urban\textsuperscript{a}, Nathan Cherny\textsuperscript{b}, Raphael Catane\textsuperscript{a,*}

\textsuperscript{a} Sheba Medical Center, Tel Hashomer, Israel
\textsuperscript{b} Shaare Tzdeek Medical Center, Jerusalem, Israel
Accepted 13 March 2009
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\textsuperscript{b} Shaare Tzedek Medical Center, Jerusalem, Israel
Accepted 13 March 2009
Position Paper

International Society of Geriatric Oncology (SIOG) recommendations for the adjustment of dosing in elderly cancer patients with renal insufficiency

Stuart M. Lichtman\textsuperscript{a}, Hans Wildiers\textsuperscript{b}, Vincent Launay-Vacher\textsuperscript{c}, Christopher Steer\textsuperscript{d}, Etienne Chatelut\textsuperscript{e}, Matti Aapro\textsuperscript{f}.*
Medical treatment of cancer: some specific issues for the older patient

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- anemia: EORTC guidelines
- febrile neutropenia: EORTC guidelines
- issues in palliation (confusional status with morphine),
- diabetes as a complicating factor:
- bone health (prostate and breast cancer treatment): SIOG guidelines published
- risk benefit assessment: Hurria / Extermann
- issues with "targeted" agents… and « immunotherapy »…
Medical treatment of cancer: some specific issues for the older patient

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- diabetes as a complicating factor:....
- bone health (prostate and breast cancer treatment): SIOG guidelines published
- risk benefit assessment: Hurria / Extermann
- issues with "targeted" agents....and « immunotherapy »...
Accepted Manuscript

General and Supportive Care

Bone health in the elderly cancer patient: a SIOG Position Paper

J.J. Body, E. Terpos, B. Tombal, P. Hadji, A. Arif, A. Young, M. Aapro, R. Coleman

PII: S0305-7372(16)30104-9
DOI: http://dx.doi.org/10.1016/j.ctrv.2016.10.004
Reference: YCTRV 1560

To appear in: Cancer Treatment Reviews Cancer Treatment Reviews

Received Date: 17 October 2016
Accepted Date: 19 October 2016

Please cite this article as: Body, J.J., Terpos, E., Tombal, B., Hadji, P., Arif, A., Young, A., Aapro, M., Coleman, R., Bone health in the elderly cancer patient: a SIOG Position Paper, Cancer Treatment Reviews Cancer Treatment Reviews (2016), doi: http://dx.doi.org/10.1016/j.ctrv.2016.10.004
Mortality In Post-menopausal Women

Breast cancer mortality

11036 women  1146 events

10–y gain 3.1% (SE 1.3)
Logrank 2p = 0.004

All cause mortality

11036 women  1524 events

10–y gain 2.3% (SE 1.5)
Logrank 2p = 0.007

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Adjuvant AIs reduce the rate of relapse and improve breast cancer survival in post-menopausal patients compared to tamoxifen.
Medical treatment of cancer: some specific issues for the older patient

- renal clearance: SIOG guidelines
- anemia: EORTC guidelines
- febrile neutropenia: EORTC guidelines
- issues in palliation (confusional status with morphine),
- diabetes as a complicating factor:……
- bone health (prostate and breast cancer treatment): SIOG guidelines almost final
- risk benefit assessment: Hurria / Extermann
- issues with "targeted" agents….and « immunotherapy »…
THE MISUNDERSTANDING:

CGA ASSESSES HEALTH STATUS

BUT

HEALTH STATUS (FITNESS) IS NOT FULLY PREDICTIVE OF TOLERANCE TO TREATMENT
Assessing the Older Patient for Cancer Treatment

• Fitness does not mean you can all do the same exercise, does it?

Shown by Audisio, SIOG 2003
## G-8 geriatric screening tool

<table>
<thead>
<tr>
<th>Question</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?</td>
<td>0 = severe decrease, 1 = moderate decrease, 3 = no decrease</td>
</tr>
<tr>
<td>Weight loss during the last 3 months?</td>
<td>0 = &gt;3kg, 1 = does not know, 2 = between 1 and 3 kg, 3 = none</td>
</tr>
<tr>
<td>Mobility?</td>
<td>0 = bed or chair bound, 1 = able to get out of bed or chair but does not go out, 2 = goes out</td>
</tr>
<tr>
<td>Neuropsychological problems?</td>
<td>0 = severe dementia/depression, 1 = mild dementia, 2 = no psychological problems</td>
</tr>
<tr>
<td>BMI (weight in kg/height in m(^2))</td>
<td>0 = BMI &lt;19, 1 = BMI 19 to &lt;21, 2 = BMI 21 to &lt;23, 3 = BMI ≥ 23</td>
</tr>
<tr>
<td>Takes more than 3 prescription drugs per day?</td>
<td>0 = yes, 1 = no</td>
</tr>
<tr>
<td>In comparison with other people of the same age, how does the patient consider his health status?</td>
<td>0 = not as good, 0.5 = does not know, 1 = as good, 2 = better</td>
</tr>
<tr>
<td>Age</td>
<td>0 = &gt;85 yr, 1 = 80-85 yr, 2 = &lt;80 yr</td>
</tr>
</tbody>
</table>

**Total score:** 0-17 (14 or less indicates need of CGA)

Bellara CA et al. Annals Oncol 2012; 23: 2166
Strong prognostic value of G8 for OS

Prospective non intervention study in 937 patients aged 70 or older

Kenis C et al, J Clin Oncol 2014; 32: 19-26
Life expectancy in senior adults: a large variability reflecting health status variability

General health and functional status are poorly represented by chronological age alone, but may be captured in a multidomain comprehensive geriatric assessment (CGA).

Health status groups

- Top 25th percentile (FIT seniors)
- 50th percentile (MEDIAN life expectancy)
- Lowest 25th percentile (FRAIL seniors)

CGA DOMAINS
- Cognition
- Comorbidity
- Emotional conditions
- Function
- Geriatric syndromes
- Nutrition
- Pharmacy
- Socioeconomic conditions

Life expectancy for elderly women based on health status

Walters et al. JAMA 2001
Early recognition of malnutrition and cachexia in the cancer patient: a position paper of a European School of Oncology Task Force

M. Aapro¹, J. Arends², F. Bozzetti³, K. Fearon⁴*, S. M. Grunberg⁵,†, J. Herrstedt⁶, J. Hopkinson⁷, N. Jacquelin-Ravel¹, A. Jatoi⁸, S. Kaasa⁹ & F. Strasser¹⁰

¹Clinique de Genolier, Genolier, Switzerland; ²Tumor Biology Center, Albert Ludwig’s University, Freiburg, Germany; ³Department of Medicine and Surgery, University of Milan, Milan, Italy; ⁴School of Clinical Sciences and Community Health, University of Edinburgh, Royal Infirmary, Edinburgh, UK; ⁵Hematology/Oncology Division, University of Vermont College of Medicine, Burlington, VT, USA; ⁶Department of Oncology, Odense University Hospital, Odense, Denmark; ⁷School of Healthcare Sciences, Cardiff University, Cardiff, UK; ⁸Department of Oncology, Mayo Clinic, Rochester, MN, USA; ⁹Faculty of Medicine, Norwegian University of Science and Technology, Trondheim, Norway; ¹⁰Department of Internal Medicine, Kantonsspital, St Gallen, Switzerland
Prediction and Possible Reduction of Toxicity of Chemotherapy in Older Patients?

Arti Hurria, MD
Director, Cancer and Aging Research Program
City of Hope
Duarte, CA, USA
Are we able to predict toxicity?

Predicting the Risk of Chemotherapy Toxicity in Older Patients: The Chemotherapy Risk Assessment Scale for High-Age Patients (CRASH) Score

Martine Extermann, MD¹; Ivette Boler, ARNP¹; Richard R. Reich, PhD¹,²; Gary H. Lyman, MD³; Richard H. Brown, MD⁴; Joseph DeFelice, MD⁵; Richard M. Levine, MD⁶; Eric T. Lubiner, MD⁷; Pablo Reyes, MD⁸; Frederic J. Schreiber III, MD⁹; and Lodovico Balducci, MD¹
## Predictors of Toxicity From Cancer Therapy

<table>
<thead>
<tr>
<th>Laboratory</th>
<th>Clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Hemoglobin</td>
<td>- ECOG PS</td>
</tr>
<tr>
<td>- Albumin</td>
<td>- Diastolic blood pressure</td>
</tr>
<tr>
<td>- LDH</td>
<td>- Mini-Mental Examination</td>
</tr>
<tr>
<td>- Creatinine clearance</td>
<td>- Self-rated Health</td>
</tr>
<tr>
<td></td>
<td>- <strong>Mini-Nutritional Assessment</strong></td>
</tr>
<tr>
<td></td>
<td>- CIRS-G Comorbidity</td>
</tr>
<tr>
<td></td>
<td>- IADL</td>
</tr>
</tbody>
</table>

IADL, Instrumental Activities of Daily Living.
Are we able to predict toxicity?

Predicting Chemotherapy Toxicity in Older Adults With Cancer: A Prospective Multicenter Study


ABSTRACT
## Predictive Model for Toxicity From Chemotherapy

<table>
<thead>
<tr>
<th>Risk Factors for Grade 3-5 Toxicity</th>
<th>OR (95% CI)</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &gt; 73</td>
<td>1.2 (1.2-2.7)</td>
<td>2</td>
</tr>
<tr>
<td>GI/GU cancer</td>
<td>2.2 (1.4-3.3)</td>
<td>3</td>
</tr>
<tr>
<td>Standard dose</td>
<td>2.1 (1.3-3.5)</td>
<td>3</td>
</tr>
<tr>
<td>Polychemotherapy</td>
<td>1.8 (1.1-2.7)</td>
<td>2</td>
</tr>
<tr>
<td>Hemoglobin (male: &lt;11, female: &lt;10)</td>
<td>2.2 (1.1-4.3)</td>
<td>3</td>
</tr>
<tr>
<td>Creatinine clearance &lt;34</td>
<td>2.5 (1.2-5.6)</td>
<td>3</td>
</tr>
<tr>
<td>1 or more falls in last 6 months</td>
<td>2.3 (1.3-3.9)</td>
<td>3</td>
</tr>
<tr>
<td>Hearing impairment (fair or worse)</td>
<td>1.6 (1.0-2.6)</td>
<td>2</td>
</tr>
<tr>
<td>Limited in walking 1 block</td>
<td>1.8 (1.1-3.1)</td>
<td>2</td>
</tr>
<tr>
<td>Assistance required in medication intake</td>
<td>1.4 (0.6-3.1)</td>
<td>1</td>
</tr>
<tr>
<td>Decreased social activity</td>
<td>1.3 (0.9-2.0)</td>
<td>1</td>
</tr>
</tbody>
</table>
Validation of a Prediction Tool for Chemotherapy Toxicity in Older Adults With Cancer


Author Affiliations
But we have to consider who the patient is

...and what does he/she want
Jeanne-Marie…
“Can’t be serious?”
“Senior patients” will accept chemotherapy

- Outpatient population (n=320):
  - from France and USA
  - aged 70–95 years (29% aged 80 years and older)
  - with and without cancer
  - interviewed via anonymous questionnaires

- French patients without cancer were less willing (34%) to accept strong chemotherapy than:
  - American patients without cancer (73.8%)*
  - French or American cancer patients (77.8 and 70.5%, respectively)*

- This was also true for the moderate chemotherapy (67.9 vs 100%, 95.2 and 88.5%, respectively; p<0.001)

review

The illness trajectory of elderly cancer patients across cultures: SIOG position paper

A. Surbone\textsuperscript{1*}, M. Kagawa-Singer\textsuperscript{2}, C. Terret\textsuperscript{3} & L. Baider\textsuperscript{4}

On behalf of the SIOG Task Force on Cultural Competence in the Elderly\textsuperscript{†}

\textsuperscript{1}European School of Oncology, Milan, Italy and New York University, New York, USA; \textsuperscript{2}UCLA School of Public Health and Asian American Studies Department, Los Angeles, USA; \textsuperscript{3}Centre Léon Bérard, Lyon, France; \textsuperscript{4}Hadassah University Medical Center, Jerusalem, Israel

Received 12 May 2006; accepted 26 June 2006

\textsuperscript{†}Task Force Members: L. Baider, Israel; O. Brawley, US; M. Kagawa-Singer, US; M. Mori, Japan; B. Stein, Australia; A. Surbone, Italy; C. Terret, France; M. Zereu, Brasil
We cannot “simply” apply principles of clinical studies validated in younger patients

EORTC workshop on clinical trial methodology in older individuals with a diagnosis of solid tumors
L. Wyld, A. Timmer, F. Bonnetain, L. Repetto, M. Aapro, A. Luciani, H. Wildiers
On behalf of the EORTC Elderly Task Force
Annals Oncology, 2011
SO WHEN DO I CALL THE « GERIATRICIAN » ???
Mini-Cog

Screening for cognitive impairment


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. For repeated administrations, use of an alternative word list is recommended.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Banana</td>
<td>Leader</td>
<td>Village</td>
<td>River</td>
<td>Captain</td>
<td>Daughter</td>
</tr>
<tr>
<td>Sunrise</td>
<td>Season</td>
<td>Kitchen</td>
<td>Nation</td>
<td>Garden</td>
<td>Heaven</td>
</tr>
<tr>
<td>Chair</td>
<td>Table</td>
<td>Baby</td>
<td>Finger</td>
<td>Picture</td>
<td>Mountain</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Word Recall: ___ (0-3 points)</th>
<th>1 point for each word spontaneously recalled without cueing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clock Draw: ___ (0 or 2 points)</td>
<td>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.</td>
</tr>
<tr>
<td>Total Score: ___ (0-5 points)</td>
<td>Total score = Word Recall score + Clock Draw score. A cut point of &lt;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 &gt;4 is recommended as it may indicate a need for further evaluation of cognitive status.</td>
</tr>
</tbody>
</table>
G8 and MINI-Cog

>14
No geriatric assessment required

≤14
Simplified geriatric assessment required

Early introduction of palliative care

REVERSIBLE
- Abnormal ADL: 1 or 2
- Weight loss 5-10%
- Comorbidities: CISR-G grade 1-2

CGA then geriatric intervention

NOT REVERSIBLE
- Abnormal ADL: 1 or 2
- Weight loss >10%
- Comorbidities: CISR-G grade 3-4

Fit

Frail

Disabled
Severe comorbidities

Droz et al 2017
In some boxes letters were capitalised; made consistent in using small letters and a capital letter at beginning

Antoinnet Den Buitelaar, 08/11/2016
SIOG GUIDELINES
( please go to www.SIOG.org )


Approach to therapy of diffuse large B-cell lymphoma in the elderly: the International Society of Geriatric Oncology (SIOG) expert position commentary.

Screening tools for multidimensional health problems warranting a geriatric assessment in older cancer patients: an update on SIOG recommendations.


Oral single-agent chemotherapy in older patients with solid tumours: A position paper from the International Society of Geriatric Oncology (SIOG).

SIOG Guidelines since 2014 JSMO
(please go to www.SIOG.org)

- The assessment and management of older cancer patients: A SIOG surgical task force survey on surgeons' attitudes

- Taxanes in the treatment of breast cancer: Have we better defined their role in older patients? A position paper from a SIOG Task Force
SIOG Guidelines since 2014 JSMO  
( please go to www.SIOG.org )

• Management of chronic lymphocytic leukaemia in the elderly: position paper of a SIOG Task Force
  
SIOG Guidelines since 2014 JSMO
(please go to www.SIOG.org)

● Management of Prostate Cancer in Elderly Patients: Recommendations of a Task Force of the International Society of Geriatric Oncology
  ● Jean-Pierre Droz, Gilles Albrand, Silke Gillessen, Simon Hughes, Nicolas Mottet, Stéphane Oudard, Heather Payne, Martine Puts, Gilbert Zulian, Lodovico Balducci, Matti Aapro. European Urology Available online 11 January 2017

● Bone health in the elderly cancer patient: a SIOG Position Paper
The future SIOG guidelines
(please follow www.SIOG.org)

- For 2017 and following: multiple myeloma, biosimilars, lung cancer (update), nursing, nutrition, bladder cancer, cardiotoxicity (update), targeted agents, anti Her-2 agents, immunotherapy, compliance/adherence....
SIOG take home messages

- Elderly patients breast cancer patients should be offered the same loco-regional and systemic treatment as younger patients, whenever possible.
- Life expectancy, treatment tolerance, potential risks vs. expected absolute benefits, should be considered in all management decisions and geriatric assessments help in better defining these variables.
- Patient preference and possible barriers (logistic, social, etc) to treatment administration should also be considered.
Some final reflections

• Decisions on treatment have to take into consideration the patient’s quality of life

• Decisions on treatment have to take into consideration her decision to live longer or to have a better quality of life, perhaps dying earlier

• **Chronological age should not be the basis for treatment decisions**

• Decisions on treatment never should never be made for economic reasons

• Individual assessment of each patient is necessary; patient /doctor communication is key to making the right decision for each patient.

From Roswitha Britz at ECCO 2015
An important resource

ESMO Handbook on Cancer in the Senior Patient

2ND EDITION
EUROPEAN SOCIETY FOR MEDICAL ONCOLOGY
Matti Aapro
Genolier Cancer Centre (Switzerland)

THANK YOU
DANKE
MERCI