Supportive care in older adults with haematological malignancies

Never too old – the important role of exercise in older adults with cancer

Annual Meeting MASCC / ISOO, Vienna, June 29th, 2018

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# Faculty Disclosure

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Honoraria/Expenses</th>
<th>Consulting/Advisory Board</th>
<th>Funded Research</th>
<th>Royalties/Patent</th>
<th>Stock Options</th>
<th>Ownership/Equity Position</th>
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<td>Disclosures – Reinhard Stauder MD, MSc</td>
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<td><strong>Research Support/P.I.</strong></td>
<td>Celgene, Novartis, Teva</td>
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<td>Celgene, Novartis, Teva, Janssen-Cilag</td>
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<td>Celgene</td>
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</table>
Supportive care in older adults with haematological malignancies

- Introduction
  - Relevance of haematological malignancies in elderly
  - Possible contributions of geriatric oncology in supportive care
    - Geriatric assessment
      - Exercise
      - Patient-reported outcomes (PROs)

- Summary
Definition of supportive care in cancer

Supportive care is the prevention and management of the symptoms and side effects of cancer and its treatment across the cancer continuum from diagnosis to the end of life.

It includes support for patients, their families, and their caregivers.

Supportive care improves both quality of care and quality of life.

http://www.mascc.org/
Activities of MASCC in supportive care

- Antiemetics (MASCC guidelines....)
- Mucositis guidelines MASCC
- Oral medication MASCC Oral Agent Teaching Tool (MOATT)
- Pain medication Pain Management Center
- MASCC Neutropenia, Infection & Myelosuppression Study Group
- Growth factors; Calculate by QxMD - (Free) Calculate the MASCC Febrile Neutropenia score
- Nutrition
- Communication challenges in geriatric oncology: perspectives of patients, family caregivers, and healthcare professionals...
- Cancer-associated VTE
- ...
Supportive care in older adults with haematological malignancies

Geriatric hematology/oncology
Supportive care
Palliative care
KEY POINTS

- Patient-centred care approach
- Patient-centred care interventions
- Timely patient-centred interventions
- End-of-life care
- Multidisciplinary teams (MDT)
- Integrating healthcare resources
- Need for specific training in patient-centred care
Supportive care in older adults with haematological malignancies

Geriatric hematology/oncology

Patient-centred care

Jordan K et al., ESMO position paper, Ann Onol 2018
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Epidemiology of Myelodysplastic Syndromes (MDS)  
NCI SEER*Stat Database

* Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute (NCI)
Haematological cancer is a typical disease of elderly

<table>
<thead>
<tr>
<th>Cancer type</th>
<th>Median age at diagnosis (~yrs)</th>
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</thead>
<tbody>
<tr>
<td>Myelodysplastic syndromes</td>
<td>75</td>
</tr>
<tr>
<td>Acute myeloid leukemia</td>
<td>70</td>
</tr>
<tr>
<td>Multiple myeloma</td>
<td>70</td>
</tr>
<tr>
<td>Diffuse large B-cell NHL</td>
<td>70</td>
</tr>
<tr>
<td>Chronic lymphocytic leukemia</td>
<td>70</td>
</tr>
</tbody>
</table>

- Elderly represent the majority in blood cancer patients
- Demographic changes will result in a pronounced increase

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Relevance of geriatric assessment

Geriatric assessment helps oncologists to

- understand the overall health status of the patient
- identify previously unknown health problems
- predict life expectancy of the patient
- predict tolerance of treatments
- influence treatment choices
- identify geriatric interventions that can improve treatment tolerability and compliance

Based on SIOG; www.siog.org/content/why-geriatric-oncology-0
Which treatment?

Chronological (passport) age ≠ Biological age

Source: EHA SWG Scientific Meeting: Aging and Hematology and www.landesmuseum.at/uploads/tx_templavoila/Richard_Avedon_Jacob_Israel_Avedon_1973.jpg; Albrecht Dürer
Fit patient

Vulnerable/Frail patient

By courtesy of Hamaker M
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Status</td>
<td>WHO &amp; Karnofsky Performance Status</td>
</tr>
</tbody>
</table>
| **Functional activities** | Acitivities of daily living (ADL) (Barthel Index)  
Instrumental activities of daily living (iADL)  
**Objective physical capacity:** Timed Up & Go (TUG),  
Gait-speed, Six-minutes walk test (6-MWT), Chair-rising test, Handgrip |
| Comorbidities        | Charlson comorbidity index (CCI), ACE-27  
Cumulative illness rating scale for geriatricians (CIRS-G)  
Haematopoietic cell transplantation comorbidity index (HCT-CI) |
| **QoL (Health-related quality of life)** | Geriatric depression scale (GDS)  
Funct. Assessment of Cancer Therapy General Scale (FACT-G)  
EORTC Qol C30; Nottingham Health Profile Short Form 36 (SDF36), EuroQol Fragebogen (EQ-5D) |
<p>| Cognition            | Mini Mental Status Examination (MMS); Montreal Cognitive Assessment (MoCA); Demtec (Demenz-Detektions) Test |
| Social support       | Fragebogen zur sozialen Unterstützung (FSOZU)                                                                                                                                                 |
| Nutritional status   | Body mass index (BMI); Mini nutritional assessment (MNA)                                                                                                                                       |
| Screening            | G8, VES-13 (vulnerable elderly survey 13), PPT (physical performance test), Fried, Groningen frailty indicator, Lachs Screening                                                             |</p>
<table>
<thead>
<tr>
<th></th>
<th>Total n=108</th>
<th>OS Univariate analysis</th>
<th>OS Multivariate analysis</th>
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<tr>
<td>Median age (range)</td>
<td>78.2 (67.1-98.9)</td>
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<tr>
<td>Female</td>
<td>47%</td>
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<tr>
<td>Diagnosis</td>
<td></td>
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<tr>
<td>Myelodysplastic syndromes</td>
<td>25 (23%)</td>
<td></td>
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<tr>
<td>Acute myeloid leukaemia</td>
<td>31 (29%)</td>
<td>**</td>
<td>**</td>
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<tr>
<td>Myeloproliferative neoplasms</td>
<td>5 (5%)</td>
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<tr>
<td>Non-Hodgkin lymphoma – indolent</td>
<td>13 (12%)</td>
<td></td>
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<tr>
<td>Non-Hodgkin lymphoma – aggressive</td>
<td>31 (29%)</td>
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<tr>
<td>Multiple myeloma</td>
<td>3 (3%)</td>
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<tr>
<td>Comorbidity</td>
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<tr>
<td>Median total CIRS-G score (range)</td>
<td>6.5 (0-20)</td>
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<td></td>
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<tr>
<td>WHO performance status ≥2</td>
<td>47%</td>
<td>0.06</td>
<td>0.10</td>
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<tr>
<td>Geriatric impairments</td>
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</tr>
<tr>
<td>ADL</td>
<td>20%</td>
<td></td>
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<tr>
<td>IADL</td>
<td>45%</td>
<td></td>
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<tr>
<td>Mobility</td>
<td>24%</td>
<td>0.08</td>
<td>*</td>
</tr>
<tr>
<td>Cognition</td>
<td>17%</td>
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<tr>
<td>Social support</td>
<td>21%</td>
<td></td>
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<tr>
<td>Mood</td>
<td>24%</td>
<td></td>
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<tr>
<td>Polypharmacy</td>
<td>65%</td>
<td></td>
<td></td>
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<tr>
<td>Nutritional status</td>
<td>45%</td>
<td>**</td>
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<tr>
<td>G8</td>
<td>61%</td>
<td>**</td>
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<tr>
<td>Impaired geriatric assessment</td>
<td>0.05</td>
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Prevalence and relevance of impairments in haematologic malignancies

* p<0.05  
** p<0.01

Ability to take a long walk predicts OS

- 114 MDS patients, 65+ yrs, retrospective analysis
- Self-reported physical function was more predictive than physician rated performance status.
  - Univariate and OS: p=0.0062
  - Best predictors for OS in multivariate: Low serum albumin (HR = 2.3), therapy-related MDS (HR= 2.1), IPSS-score (HR=1.7), east to take a long walk (HR=0.44)

*Fega et al., JGO 2015*
Prognostic factors for mortality
Hematological malignancies in the elderly

<table>
<thead>
<tr>
<th>Study</th>
<th>Results univariate analyses</th>
<th>Results multivariate analyses</th>
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<tbody>
<tr>
<td></td>
<td>Author</td>
<td>Year of publication</td>
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<tr>
<td></td>
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<tr>
<td></td>
<td>Klepin</td>
<td>2013 (2011)</td>
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<td></td>
<td>Deschler</td>
<td>2013</td>
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<td></td>
<td>Corsetti</td>
<td>2011</td>
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<td>Tucci</td>
<td>2009</td>
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<td>Soubeyran</td>
<td>2011</td>
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<td></td>
<td>Winkelmann</td>
<td>2011</td>
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<td>Rollot-Trad</td>
<td>2008</td>
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<td>Soubeyran</td>
<td>2012</td>
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<td>Wedding</td>
<td>2007</td>
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<tr>
<td></td>
<td>Wildes</td>
<td>2013</td>
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<td></td>
<td>Proportion of studies with a significant association (%)</td>
<td>57</td>
</tr>
</tbody>
</table>

Based on a systematic Medline and Embase search, June 21st 2013
Predictive model for chemotherapy toxicity (CARG score)

- Predicting chemotherapy toxicity grade 3-5 (CTC) in older cancer patients (n=500)
- Prospective multicenter study

Risk factors (Odds ratio)
- Age ≥ 72yrs (1.85)
- Hb <11 (m), <10 (f) (2.31)
- Creatinine clearance <34ml/min (2.46)
- No. of falls (1 or more) in last 6 months (2.47)
- IADL: taking medications with some help or unable (1.5)
- IADL: walking one block: somewhat limited or limited a lot (1.71)

Ability of (A) risk score versus (B) physician-rated Karnofsky performance status (KPS) to predict chemotherapy toxicity.

Hurria A. et al., JCO 2011; validated by Hurria A. et al., JCO 2015
Functional decline is associated with shortened overall survival

Kenis C et al., JGO 2017
Does case-management improve outcome?

- Case management & interventions improve outcome in elderly post-surgical cancer patients
- (Hematological) cancer?

McKorkle R et al., JAGS 2000
Supportive care in older adults with haematological malignancies
Relevance of geriatric assessment

Geriatric assessment helps oncologists to
- understand the **overall health status of the patient** +
- identify **previously unknown health problems** +
- **predict life expectancy** of the patient +
- predict **tolerance of treatments** ±
- influence **treatment choices** ±
- identify **geriatric interventions** that can improve treatment tolerability and compliance ±

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Patient reported outcomes (PROs) - Definition

- Any report of the status of a patient’s health condition that comes directly from the patient, without interpretation of the patient’s response by a clinician or anyone else (FDA).
- Standardised, validated questionnaires that are completed by patients to measure their perceptions of their own functional status and wellbeing (BMJ).
Prevalence of symptoms & impairments in functional domains in EORTC QLQ-C30 in hematological malignancies (n= 149)

Hofer F et al., Ann Hematol, in press
Fatigue is associated with unfavourable OS in hematological malignancies

median 26.4 vs 7.0 months
p < 0.001

Hofer F et al., Ann Hematol, in press
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Where to go?

Where we’ve been
- we know a lot, but need to know more
- we are great at predicting
- we have to intervene and prove the benefit

As our population ages, we need to consider
- Collaboration with other medical fields struggling with similar issues
- Integrate PROs and how to elicit patient preferences
- Caring for caregivers
- Importance of social support

Based on Stuart M. Lichtman, Presidential Symposium; SIOG Annual Meeting 2017
Scientific Meeting on Aging and Hematology

October 12-14, 2018
Warsaw, Poland
Chair: D Bron
Organised by EHA & the EHA Scientific Working Group on Aging and Hematology

https://ehaweb.org/meetings/swg-aging/
ASH Annual Meeting Friday Scientific Workshop

Hematology and Aging:
Highlighting Novel Science and Developing a Research Agenda

December 2017
Abstract submission deadline: JUNE 8, 2018
Early registration deadline: JUNE 19, 2018

Find out more at www.siog.org