THE ROLE OF THE
GERIATRIC ONCOLOGY NURSE

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THE BEGINNING...

Older persons = heterogeneous population

‘People are never more alike than they are at birth, no more different or unique than when they enter the geriatric era’
THE CHALLENGE OF THE 21ST CENTURY...

Chronological vs biological age
IN DAILY CLINICAL PRACTICE...
TREATMENT DECISIONS IN OLDER PATIENTS WITH CANCER

- Does further diagnostic examinations have therapeutic implications in this patient?

- Is the patient ‘too old’ or ‘not too old’ for therapy?

- What is his / her life expectancy?

- Will he / she tolerate therapy?

- Has the patient enough support to maintain therapy?

- …
COMPREHENSIVE GERIATRIC ASSESSMENT (CGA)
CORNERSTONE:
Comprehensive Geriatric Assessment (CGA)

“a multidimensional, interdisciplinary patient evaluation that leads to the identification of the general health status including medical, functional, cognitive, social, nutritional and psychological parameters to develop a coordinated and integrated plan for treatment and long-term follow-up”
GERIATRIC MEDICINE (2)

5 consecutive steps:

i. identifying patients who can benefit from CGA

ii. assessing these patients

iii. developing recommendations for geriatric interventions based on the detected problems by CGA

iv. implementing these recommendations

v. provision of follow-up and adjustment of the care plan with repeat CGA

Source: Rubenstein et al 1991; Ellis & Langhorn, 2005
COMPREHENSIVE GERIATRIC ASSESSMENT (CGA)

HOW TO IMPLEMENT?

GERIATRIC SCREENING AND ASSESSMENT IN OLDER PATIENTS WITH CANCER
### MODELS OF IMPLEMENTATION (1)

<table>
<thead>
<tr>
<th>Model</th>
<th>Definition</th>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA ward</td>
<td>Specific ward with specialized geriatric care team that applies GA and:</td>
<td>Six meta-analyses show that GEMU is most effective way of caring for geriatric patients with lower mortality, less institutionalization, and less functional decline compared with standard (non-GEMU) care for same patients.</td>
</tr>
<tr>
<td>GEMU</td>
<td>Delivers both acute and rehabilitative care to inpatients (^{11})</td>
<td></td>
</tr>
<tr>
<td>ACE</td>
<td>Only delivers ACE; patients in ACE are transferred to long-term care facilities for rehabilitation programs (^{90})</td>
<td></td>
</tr>
<tr>
<td>GCT</td>
<td>Specialized geriatric team that applies GA in non-GA wards on consultative basis</td>
<td>Recent meta-analysis (^{64}) could not show consistent effect of IGCT interventions in non-GEMUs on mortality, readmission, length of stay, or functional status; absence of effect is mainly because of low adherence rate to IGCT recommendations</td>
</tr>
<tr>
<td>CMM</td>
<td>Joint geriatric and specialized care (e.g., orthogeriatric beds or units)</td>
<td>Individual studies of CMMs, mainly operationalized as orthogeriatric beds to date, show promising results and advantages (^{98})</td>
</tr>
</tbody>
</table>

Abbreviations: ACE, acute care for elders; CGA, comprehensive geriatric assessment; CMM, comanagement model; GA, geriatric assessment; GCT, geriatric consultation team; GEMU, geriatric evaluation and management unit; IGCT, inpatient geriatric consultation team.

# MODELS OF IMPLEMENTATION (2)

<table>
<thead>
<tr>
<th>GA Model</th>
<th>Definition</th>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geriatric oncology unit</td>
<td>Specific ward with team specialized in caring for older patients with cancer that applies GA based on GEMU or ACE model</td>
<td>Centralization of geriatric expertise and treatment options</td>
<td>Potential patient withdrawal from familiar treating oncologist; financial incentives might drive general oncologists not to refer patients; only limited No. of patients can be reached; general geriatric oncologists might miss detailed, rapidly evolving knowledge of breast field of oncology</td>
</tr>
</tbody>
</table>

| GCT | Specialized geriatric team that applies GA in non-GA wards or in other settings on consultative basis | Patients remain under supervision of their treating oncologists; can reach large majority of older patients with cancer; interaction between oncologists and geriatric teams is feasible | Decentralization of geriatric expertise has logistic and practical (eg, staffing) challenges; several factors may lead to low compliance of treating physicians to GCT advice; GA results may be unknown at time of treatment decision making; treating physicians might not know what to do with GA results; onset of geriatric intervention or treatment adjustment depends on local possibilities; patients who need referral to specific geriatric care programs might encounter waiting lists |

| Geriatric expertise not nearby | GA in standalone comprehensive cancer centers without geriatric department or private practice oncology clinic | Patients remain under supervision of their treating oncologists; validated methods can easily be used to target high-risk patients and introduce geriatric care; large majority of older patients with cancer can be reached | Realization of interaction between oncologists and geriatric teams is difficult; no gold standard to screen high-risk patients; interrater reliability and interpretation of results can be problem; patients who need referral might encounter waiting lists |

MODELS OF IMPLEMENTATION

1. There are several ways of implementing a GA.

2. All models have advantages and disadvantages.
   2. No comparison of outcomes from these various models in oncology is available.

3. Interaction with multidisciplinary geriatric teams (for selected patients) is highly recommended.

4. Role of the nurse and educational background is different in all models.

GERIATRIC ONCOLOGY NURSING

GERIATRIC SCREENING AND ASSESSMENT
IN OLDER PATIENTS WITH CANCER
MODEL OF GERIATRIC ONCOLOGY NURSING

- extends beyond the traditional medical management of illness
- integrates concepts of oncology, geriatrics and nursing
- includes assessment and management of general health status including functional, cognitive, social, nutritional and psychological parameters in which nurses excel

**CGA: 5-STEP APPROACH**

**STEP 1:** Geriatric screening

**STEP 2:** Geriatric Assessment

**STEP 3:** Geriatric recommendations

**STEP 4:**
- Information to treating physician/general practitioner/other health care professionals
- Inter/multidisciplinary geriatric interventions

**STEP 5:** Follow-up (with GA)

**Source:** guidelines of SIOG, EORTC and NCCN
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*Source:* guidelines of SIOG, EORTC and NCCN
Screening tools for multidimensional health problems warranting a geriatric assessment in older cancer patients: an update on SIOG recommendations

## Geriatric Screening Tools

<table>
<thead>
<tr>
<th>ITEM</th>
<th>TOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening</td>
<td>- G8</td>
</tr>
<tr>
<td></td>
<td>- Flemish version of the Triage Risk Screening Tool (fTRST)</td>
</tr>
<tr>
<td></td>
<td>- Groninger Frailty Index (GFI)</td>
</tr>
<tr>
<td></td>
<td>- Vulnerable Elders Survey-13 (VES-13)</td>
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<td></td>
<td>- Senior Adult Oncology Program-2 (SAOP-2)</td>
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<tr>
<td></td>
<td>- Abbreviated CGA (aCGA)</td>
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<td></td>
<td>- ...</td>
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GERIATRIC ASSESSMENT: 5-STEP

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*Source:* guidelines of SIOG, EORTC and NCCN
International Society of Geriatric Oncology Consensus on Geriatric Assessment in Older Patients With Cancer

GA: DOMAINS AND INSTRUMENTS

- Social support
- Functional status
- Fatigue
- Comorbidity
- Cognition
- Mental health
- Nutrition
- Geriatric syndromes
  (dementia, delirium, falls, incontinence, osteoporosis or spontaneous fractures, neglect or abuse, failure to thrive, constipation, polypharmacy, pressure ulcer, sarcopenia)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Tool (References)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic data and social status</td>
<td>Questions on living situation, marital status, educational level, safety of environment, financial resources. (1, 16, 17, 34)</td>
</tr>
<tr>
<td></td>
<td>MOS Social Activity Survey (2, 15, 19)</td>
</tr>
<tr>
<td></td>
<td>Caregiver burden (EDIZ) (13)</td>
</tr>
<tr>
<td></td>
<td>MOS Social Support Survey: Emotional/Information and Tangible Subscales (2, 15, 16, 19)</td>
</tr>
<tr>
<td></td>
<td>Summary of some criteria (e.g. availability of family support, appropriateness of social environment) (17, 18, 30, 34)</td>
</tr>
<tr>
<td>Comorbidity</td>
<td>Charlson Comorbidity Index (CCI) (10, 14, 16, 18, 29, 30)</td>
</tr>
<tr>
<td></td>
<td>CIRS (31, 33)</td>
</tr>
<tr>
<td></td>
<td>CIRS-G (7, 8, 17, 33, 34)</td>
</tr>
<tr>
<td></td>
<td>NYAH (7)</td>
</tr>
<tr>
<td></td>
<td>Number of comorbid conditions (2)</td>
</tr>
<tr>
<td></td>
<td>Simplified Comorbidity Score (SCS) (30)</td>
</tr>
<tr>
<td></td>
<td>summary of comorbidities (17)</td>
</tr>
<tr>
<td></td>
<td>Hematopoietic Cell Transplantation Comorbidity Index (11)</td>
</tr>
<tr>
<td></td>
<td>Physical Health Section (subscale of the OARS)20 (15, 19)</td>
</tr>
<tr>
<td>Functional status</td>
<td>ADL: Katz index (1, 4, 7, 8, 10, 11, 13, 14, 17, 18, 30, 34)</td>
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<tr>
<td></td>
<td>LADL: Lawton scale (1, 4, 7, 10, 11, 13, 14, 18, 30, 34)</td>
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<tr>
<td></td>
<td>Performance status index (10)</td>
</tr>
<tr>
<td></td>
<td>Barthel Index (any version) (29, 31, 38)</td>
</tr>
<tr>
<td></td>
<td>Lawton-Brody IADL Scale (29)</td>
</tr>
<tr>
<td></td>
<td>Nottingham Extended Activities of Daily Living Scale (NEADL) (31, 38)</td>
</tr>
<tr>
<td></td>
<td>Activities of Daily Living (subscale of MOS Physical Health; Medical Outcomes Study) (2, 15)</td>
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<tr>
<td></td>
<td>Instrumental Activities of Daily Living (subscale of OARS; Older Americans Resources and Services) (2, 15, 19)</td>
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<tr>
<td></td>
<td>the Pepper Assessment Tool for Disability (PAT-D) (11)</td>
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<tr>
<td></td>
<td>Visual and/or hearing impairment, regardless of use of glasses or hearing aids (13, 18, 34)</td>
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<tr>
<td></td>
<td>MOS physical Health (any version) (18, 19)</td>
</tr>
<tr>
<td></td>
<td>Mobility Problem (requiring help or the use of a walking aid) (13)</td>
</tr>
<tr>
<td></td>
<td>Timed Get Up and Go (GUG) (4, 10, 14, 15, 17, 19)</td>
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<tr>
<td></td>
<td>Hand grip strength (11)</td>
</tr>
<tr>
<td></td>
<td>Short Physical Performance Battery (SPPB) (11)</td>
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<tr>
<td></td>
<td>One-leg standing balance test (10, 17)</td>
</tr>
<tr>
<td></td>
<td>Walking problems/gait assessment (17, 18, 34)/gait speed (17, 18, 34)</td>
</tr>
</tbody>
</table>
GA: INSTRUMENTS

- Various tools are available to investigate these domains, and superiority of one over other tools has not been proven.

- Choice of instrument might rely on
  - local preference,
  - aim of the tool,
  - resources present.
GERIATRIC ASSESSMENT: 5-STEP

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*Source:* guidelines of SIOG, EORTC and NCCN
GERIATRIC INTERVENTIONS

Involvement of other health care professionals

- General practitioner
- Social worker
- Occupational therapist
- Physical therapist
- Geronto-psychiatrist
- Dietician
- Psychologist
- ...

Referrals

- Geriatric consultation
- Geriatric day clinic
- Memory clinic
- Fall clinic
- Consultation ‘depression in older persons’
- ...

...
WHY ‘CGA’?

GERIATRIC SCREENING AND ASSESSMENT IN OLDER PATIENTS WITH CANCER
CGA: IMPORTANT OR NOT?

1. Detects unidentified geriatric problems
2. Has prognostic information (overall survival)
3. Has a predictive value for e.g. toxicity, complications at surgery,…
4. Influences treatment decisions
5. Allows targeted interventions which can improve quality of life and OS

GENERAL CONCLUSION: NURSING

• An ideal model of care in geriatric oncology nursing should integrate the concepts of oncology, geriatrics, and nursing care.

• The role of the ‘(geriatric oncology) nurse’ is crucial in all existing models described in the literature.

• Education of oncology nurses in the concepts of geriatrics and exposing them to the use of geriatric assessment and screening tools to help identify and act on areas of concern, is necessary.
GENERAL CONCLUSION

• Health care professionals need to be watchful for age related/geriatric aspects in oncology. Input from general practitioners is crucial.

• CGA detects many problems, predicts survival and toxicity, and influences treatment decisions (over- versus undertreatment).

• Implementation of geriatric assessment and geriatric interventions is a challenge.

• Geriatric recommendations and interventions = optimization of CGA effectiveness.

• Final goal = improve care for older patients with cancer!
TAKE HOME MESSAGE

“It is better to do some kind of imperfect geriatric screening and assessment than doing no assessment at all…”

TIME WELL SPENT for nurses and other health care professionals
THANK YOU!

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