Geriatric oncology in low and middle income countries: can it be integrated into clinical practice?

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Has no real or apparent conflicts of interest to report.
The world is getting older
The world is getting older

Almost 400 million older adults are living in developing countries
Global Cancer outcomes in older patients

Less resources

- Less personnel
- Less prepared hospitals
- Less money
- SCARCITY
Scarcity and the provision of healthcare

- Material resources are insufficient to produce goods aimed at satisfying the unlimited needs of the population
- Our needs grow faster than our resources
- Leads to sacrifices or adaptation of resources
- Final goal: Efficiency
Potential assessments and interventions are unlimited

THE RESOURCES WE HAVE ARE SCARCE
Geriatric oncology in developing countries

• Not a luxury, but rather a necessity
  – Better understand our patients
  – Provide high-quality clinical care
  – “Simplify the complex”

• Barriers
  – Availability of personnel with geriatric training
  – Capability of undertaking interventions
### The Latin American Example

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of geriatricians</th>
<th>Older adults per geriatrician</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>926</td>
<td>5123</td>
</tr>
<tr>
<td>Brazil</td>
<td>1000</td>
<td>16395</td>
</tr>
<tr>
<td>Colombia</td>
<td>50</td>
<td>67896</td>
</tr>
<tr>
<td>Mexico</td>
<td>401</td>
<td>20349</td>
</tr>
<tr>
<td>Peru</td>
<td>157</td>
<td>13640</td>
</tr>
</tbody>
</table>

Only 35% of Universities teach Geriatrics

Soto-Perez-de-Celis E. Clin Transl Oncol, 2018
The Latin American Example

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of Oncologists</th>
<th>Annual case load per Oncologist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>2577</td>
<td>224</td>
</tr>
<tr>
<td>Panama</td>
<td>10</td>
<td>540</td>
</tr>
<tr>
<td>Mexico</td>
<td>352</td>
<td>420</td>
</tr>
<tr>
<td>Uruguay</td>
<td>120</td>
<td>111</td>
</tr>
<tr>
<td>USA</td>
<td>13409</td>
<td>119</td>
</tr>
</tbody>
</table>

How can you include geriatric principles into cancer care in these settings?
SIOG 10 PRIORITIES INITIATIVE

Tool development

Development of Clinics

Address issues in access to care
Tool development

• The geriatric assessment is important in cancer care
  – Identifies issues not identified in oncology visits
  – Helps in estimating life expectancy
  – Predicts survival
  – Predicts chemotherapy toxicity

• We already have the tools, however....

One size may not fit all...

- **Might be difficult to understand or complete**
  - Educational background
  - Social circumstances

- **Completion of CARG self-administered GA (USA)**
  - 90% of English-speaking patients
  - 61% of Spanish-speaking patients

  - 30 minutes to complete
One size may not fit all...

Tailoring assessments and delivery of clinical care
Models of care in geriatric oncology

Geriatric Oncology Unit
- Trained geriatric oncologist
- Geriatric assessment and interventions
- Oncologic treatment

Geriatric Consultation Team
- Geriatric Team
- Co-manages patients with oncologist
- Provides recommendations

No Geriatric Expertise available
- Oncologist works alone
Most oncologists in the world work alone
Multidisciplinary interventions

**Impairment Domain**

- Functional Status
  - 1. Both ADL/IADL
  - 2. IADL
  - 3. Gait speed
  - 4. ADL

- Cognition
  - 1. Mini Mental State Examination
  - 2. Montreal Cognitive Assessment
  - 3. Blessed OMC

- Social Support
  - 1. Caregiver burden/support
  - 2. Medical Outcomes Study Survey
  - 3. Social Support from Medical History

**Assessment Options**

**Process Options**

1. Physical Therapy
2. Occupational Therapy
3. Home Safety Evaluation
4. Refer to social work
5. Evaluate Fall Risk
6. Exercise

1. Involve caregiver
2. Assess/minimize medications
3. Delirium prevention
4. Refer to social work
5. Assess capacity and ability to consent to treatment
6. Identify health care proxy
7. Cognitive testing/neuropsychology referral
8. Pain management
9. Spiritual Care

1. Refer to social work
2. Transportation Assistance
3. Nursing/Home Health
4. Caregiver Management
5. Home Safety Evaluation
6. Support groups
7. Refer to Psychiatry/Psychology
8. Spiritual Care

Multidisciplinary interventions

**Impairment Domain**

- Objective Physical Performance
  - Gait Speed
  - Timed Up and Go
  - Short Physical Performance Battery

- Psychological Status – Anxiety/Depression
  - Geriatric Depression Scale
  - Hospital Anxiety & Depression Scale
  - Mental Health Inventory

- Nutrition
  - Weight loss/gain
  - Mini-Nutritional Assessment

**Assessment Options**

**Process Options**

- Physical Therapy
- Exercise
- Occupational Therapy
- Home Safety Evaluation
- Rehabilitation
- Nursing/Home Health

- Refer to social work
- Counseling
- Refer to Psychiatry/Psychology
- Start Medications
- Support Programs
- Spiritual Care

- Nutrition consult
- Make Specific Dietary Recommendations
- Oral Care
- Supplements
- Refer to social work
- Physical/Occupational Therapy
Can this be done in resource-limited settings?

- YES, but ACCESS TO CARE is still an issue
  - One size does not fit all
  - Resources are different everywhere
    - Personnel
    - Space
    - Money
- No matter how little resources you have, there is always something to do

How can we optimize access to care?
“Young SIOG” Recommendations

Academic Centers
- All older patients receive a geriatric assessment
- Geriatric assessment-guided interventions are implemented

Third-level Hospitals
- Use of screening tools
- Geriatric assessment and interventions for selected patients

General Hospitals- Community Clinics
- Screening Tools +/- Chemotherapy toxicity calculation
- Referrals to other centers or specialists
The Cancer care in the elderly clinic (CICAM) Model

**Initial Assessment**
- G8 screening tool
- SPPB/TUG
- Mini-Cog

**G8 ≤14**
- SPPB <9
- Mini-Cog <3

- **Vulnerable/frail**
  - Comprehensive Geriatric Assessment with Interventions

**G8 >14**
- SPPB ≥9
- Mini-Cog ≥3

- **Fit**
  - Standard management by treating oncologist

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Does this influence therapeutic choices?

- 173 patients
- Median age 79
- Evaluated by CICAM
- Recommendations to treating oncologists
- Overall agreement 80%

### Treatment Decision

<table>
<thead>
<tr>
<th>Treatment Recommendation</th>
<th>Standard Treatment</th>
<th>Less Intensive Treatment</th>
<th>Best Supportive Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Treatment</td>
<td>77%</td>
<td>15%</td>
<td>8%</td>
</tr>
<tr>
<td>Less Intensive Treatment</td>
<td>16%</td>
<td>75%</td>
<td>9%</td>
</tr>
<tr>
<td>Best Supportive Care</td>
<td>0%</td>
<td>6%</td>
<td>94%</td>
</tr>
</tbody>
</table>

Overall agreement was higher when the evaluation was acknowledged.

Communication is key

- Is there a geriatrician in your hospital?
  - Refer for an assessment
  - Co-manage

- No geriatrician?
  - Self-administered geriatric assessments
    - www.mycarg.org/tools
  - Validated tools
  - Available in multiple languages

<table>
<thead>
<tr>
<th>Results</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight Loss</td>
<td>Nutrition</td>
</tr>
<tr>
<td>Fall risk</td>
<td>Physical therapy</td>
</tr>
<tr>
<td>Polypharmacy</td>
<td>Medication reconciliation</td>
</tr>
<tr>
<td>Poor social support</td>
<td>Social Work</td>
</tr>
</tbody>
</table>
Integrating the assessment into decision-making

- Target actionable issues
- Identify partners
  - Institution
  - Healthcare System
  - Community
- Provide multidisciplinary care even without a specialized geriatrics team
Can geriatric oncology be implemented in LMIC?

- **YES**
  - We have the tools
  - There are many models of care

- **Adaptable**
  - Opportunities to interact with other disciplines
  - Opportunities to foster innovation in the delivery of clinical care
  - **Geriatric principles should be included in the decision-making for ALL older adults, regardless of where they live**
Future priorities

Healthcare systems
- National plans and guidelines
- Age-friendly systems

Training
- Including geriatric competences in fellowship curricula
- Training community healthcare workers

Clinical Care
- Disseminating validated tools in various languages
- Promoting team-building

Research
- International collaborative projects
- Fostering funding for global cancer and aging

We all work in resource-limited settings