SIOG – 8th International Meeting

Paul Calabresi Award Lecture

The Challenge of Geriatric Oncology

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Fletcher Allen Health Care

Vermont Cancer Center
at the University of Vermont
Paul Calabresi, MD
1930 - 2003
Issues

- Prosperity And Aging
- Cancer As A Disease Of Aging
- Co-morbidity
  - Is It The Cancer Or Another Disease
- Undertreatment
- Clinical Trials
- The Workforce
- Where From Here?
Prosperity and Aging
FDR signs Social Security Act 1935
## Geography and Age

<table>
<thead>
<tr>
<th>Country</th>
<th>% &gt; 65 yrs</th>
<th>Median Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saudi Arabia</td>
<td>2.4</td>
<td>21</td>
</tr>
<tr>
<td>Congo Dem Rep</td>
<td>2.5</td>
<td>16</td>
</tr>
<tr>
<td>India</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Brazil</td>
<td>6</td>
<td>28</td>
</tr>
<tr>
<td>China</td>
<td>8</td>
<td>33</td>
</tr>
<tr>
<td>United States</td>
<td>13</td>
<td>37</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>16</td>
<td>39</td>
</tr>
<tr>
<td>France</td>
<td>16</td>
<td>39</td>
</tr>
<tr>
<td>Sweden</td>
<td>18</td>
<td>41</td>
</tr>
<tr>
<td>Germany</td>
<td>19</td>
<td>43</td>
</tr>
<tr>
<td>Italy</td>
<td>20</td>
<td>42</td>
</tr>
<tr>
<td>Japan</td>
<td>20</td>
<td>43</td>
</tr>
</tbody>
</table>

Oldest: Japan
Cancer as a Disease of Aging
Figure 1. Age-specific cancer incidence rates/100,000 population, observed in year 2000

Co-morbidity: Is It The Cancer or Another Disease?
## Comorbidity and Survival

<table>
<thead>
<tr>
<th>Comorbidity Score</th>
<th>n</th>
<th>10 year Survival (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
<td>369</td>
<td>97-99</td>
</tr>
<tr>
<td>2</td>
<td>136</td>
<td>87</td>
</tr>
<tr>
<td>3</td>
<td>109</td>
<td>79</td>
</tr>
<tr>
<td>4</td>
<td>42</td>
<td>47</td>
</tr>
<tr>
<td>5</td>
<td>29</td>
<td>34</td>
</tr>
</tbody>
</table>

from Charlson et al, J Chron Dis 40:373, 1987
Disease-Related Mortality vs Life Expectancy

modified from Welch et al, Ann Intern Med 124:577 1996
Vinh-Hung et al SABCS 2004 #5042
SEER 1988-97; Median f/u 8 years; n=85,183
Geriatric Assessment

• Comprehensive approach for evaluating elders
• Early identification of areas of vulnerability.
• Includes an evaluation of the following domains:
  - functional status
  - comorbid medical conditions
  - cognition
  - nutritional status
  - psychological status
  - social support
• Each domain independent predictor of morbidity and mortality
• Interventions can improve outcome
Self-Administered Geriatric Assessment
Hurria et al, ASCO 2004
40 older cancer pts; Time 27 minutes (±10)
Examiner: “Get up and go”, memory test; KPS

No:
22%

Yes:
78%

No association of age with ability to complete without assistance (p = 0.56)
CALGB 360401: Development of a brief geriatric assessment for older patients with cancer

- Age ≥ 65 on cooperative group trial
- 80 patients
- Different malignancies
- 10 institutions
- Novel accrual mechanism
- Feasibility now – Outcome later

PI: A. Hurria
Undertreatment
Undertreatment Isn’t Good Either

Hebert-Croteau et al
JCO 22:3685 2004
1541 Quebecois N-Dx 1988-1994
358 died before Jan. 2000
27% ≥ 70 years
Compare outcomes if pts treated by St. Gallen 1992 guidelines or not
No Δ minimal risk
Clinical Trials
Accrual to NCI Sponsored Trials [JCO 4-02]
CALGB 9670: Barriers to Trials

<table>
<thead>
<tr>
<th>Variable</th>
<th>&lt; 65 years</th>
<th>65+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offered Trial *</td>
<td>51%</td>
<td>35%</td>
</tr>
<tr>
<td>Offered and Accepted</td>
<td>56%</td>
<td>50%</td>
</tr>
</tbody>
</table>

In multivariate analysis **AGE was only independent risk factor** for offering trial. Race, co-morbidity, stage, education, marital status, satisfaction with care NOT predictive.

*Kemeny et al, J Clin Oncol*
Clinical Trials: Specific for Elders?
Factors favoring separate trials

- Improve accrual
- Attract funding
- Focus on toxicity and function
  - Integration of CGA
  - What CGA domains are factors in outcome
- Results focused on older population
Factors against separate trials

- Support current age bias
- Limit participation in “aggressive” trials or trials of new agents
- Minimize generalizability of data for elders
- Add to trial expense
N+ (n=6,489); 542 (8%) 65+

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Open Patients</td>
<td>886</td>
<td>933</td>
<td>1549</td>
<td>3,121</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>More Chemotherapy</th>
<th>CMFVP</th>
<th>CMFVP + VATH</th>
<th>CAF “higher”</th>
<th>AC + paclitaxel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Chemotherapy</td>
<td>CMF</td>
<td>CMFVP</td>
<td>CAF “moderate” “low”</td>
<td>AC alone</td>
</tr>
<tr>
<td>Tamoxifen</td>
<td>Unknown</td>
<td>Unknown</td>
<td>About 50%</td>
<td>About 95%</td>
</tr>
</tbody>
</table>
Our answer....

• All trials should be open to elderly regardless of age
  ➢ Provide clear data on risks and benefits
  ➢ rely on physicians clinical judgment
  ➢ Accurate assessment of life expectancy
  ➢ Let patient’s decide what risk is worth it

• Some questions however are best answered by specific trials focusing on elders.
The Workforce
Figure 2. Baseline projected supply of and demand for oncologist visits, 2005 to 2020

Workforce Issues

• There will never be enough geriatricians and oncologists to care for elders with cancer

• Need to enlist
  - General practitioners
  - Nurses
  - Nurse practitioners + physician assistants
Where From Here?
Needs...

• Education: public and health professionals
• Adequate reimbursement
• Focused trials on elderly
  ➢ Assess roles of comorbidity, frailty, etc
• Bedside models to integrate comorbidity
• Training of Geriatric Oncologists
• Advocacy
Thank you

- SIOG and its leadership
- Great Mentors
  - Lodovico Balducci
  - John Bennett
  - Harvey Cohen
  - Bill Hazzard
  - B.J. Kennedy
  - Rosemary Yancik
  - Jerry Yates
Thank You!