Preparing the Next Generation of Clinicians, Nurses and Allied Health workers to the Challenge of Cancer and Ageing

Carmencita D. Padilla, MD, MAHPS
Professor and Chancellor
University of the Philippines Manila
OBJECTIVES

• Summary of cancer key facts and the ageing population

• Challenges in preparing the next generation of clinicians, nurses and allied health workers

• Strategies to be responsive to future needs
Cancer is the second leading cause of death globally.

About 1 in 6 deaths is due to cancer.

One in 8 men and one in 11 women die from cancer.

WHO. Cancer: Key facts. 2018
THE GLOBAL CANCER BURDEN

Number of new cases in 2018, both sexes, all ages

- Lung: 2,093,876 (11.6%)
- Breast: 2,088,849 (11.6%)
- Colorectum: 1,849,518 (10.2%)
- Prostate: 1,276,106 (7.1%)
- Stomach: 1,033,701 (5.7%)
- Other cancers: 7,753,946 (42.9%)
- Cervix uteri: 569,847 (3.2%)
- Oesophagus: 572,034 (3.2%)
- Liver: 841,080 (4.7%)

Total: 18,078,957 cases

Number of deaths in 2018, both sexes, all ages

- Lung: 1,761,007 (18.4%)
- Colorectum: 880,792 (9.2%)
- Stomach: 782,685 (8.2%)
- Other cancers: 3,422,417 (35.8%)
- Prostate: 358,989 (3.8%)
- Pancreas: 432,242 (4.5%)
- Oesophagus: 508,585 (5.3%)
- Breast: 626,679 (6.6%)
- Liver: 781,631 (8.2%)

Total: 9,555,027 deaths

WHO: Cancer: Key facts 2018

Source: Globocan 2018
THE GLOBAL CANCER BURDEN

Number of clinical oncologists by region

18,239: 7,145 cases
30,836: 8,094 cases
12,217: 489 cases
7,145 cases
8,094 cases
489 cases

Mathew, 2018
Between 2015 and 2050, the proportion of the world’s population over 60 years old will nearly double from 12% to 22%.

Ageing is a high risk factor for cancer.
CHALLENGES in preparing the next generation of clinicians, nurses and allied health workers

- Data on cancer cases
- Inventory of health workers
- Inventory of services for geriatrics and cancer
CHALLENGES in preparing the next generation of clinicians, nurses and allied health workers

Ministry of Health
- Private and Government Hospitals
- Communities

Academe
- physician
- nurse
- counselor
- therapist
- allied health workers
## CHALLENGE in developing curriculum

**Collaboration between geriatricians and oncologists**

- Unique issues of cancer and aging
- Patient Assessment
- Psychosocial implications of cancer in the elderly

### ASCO Core Curriculum – geriatric oncology content

<table>
<thead>
<tr>
<th>Topics</th>
<th></th>
</tr>
</thead>
</table>
| Unique issues of cancer and aging | - Epidemiology: incidence and mortality rates  
- Biology of cancer and aging: susceptibility to cancer; molecular mechanisms leading to malignant transformation  
- Physiologic changes in aging: organ system changes; increased risk of falls/sarcopenia/malnutrition/infection/hospitalization/dependence/mortality  
- Drug therapy and aging: impact on treatment planning, drug dosing and toxicities; impact of polypharmacy in prescribing anti-cancer agents; efficacy and safety of opioids  
- Assessment: Comprehensive Geriatric Assessment; function  
- Geriatric syndromes and their impact on treatment planning  
- Comorbidities and their impact on treatment planning and communication  
- Frailty  
- Unique care needs: transportation, nursing care, personal care, homemaking, legal affairs, financial affairs  
- Depression and delirium |

Hsu, 2016
Learning needs of medical oncologists and geriatricians in geriatric oncology identified by program directors and trainees

<table>
<thead>
<tr>
<th>Needs identified</th>
<th>Medical oncologists</th>
<th>Geriatricians</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Geriatric assessment and management: cognitive impairment; delirium; cardiac and comorbidity management</td>
<td>• Cancer screening</td>
</tr>
<tr>
<td></td>
<td>• Specific cancer management: Evidence-based tumour management in older adults; optimizing treatment outcomes in older patients</td>
<td>• Cancer-related pain management</td>
</tr>
<tr>
<td></td>
<td>• Pharmacology: pharmacology of cancer therapy in older adults; polypharmacy</td>
<td>• Pre-treatment assessment of cognitive status and geriatric syndromes</td>
</tr>
<tr>
<td></td>
<td>• Psychosocial knowledge and skills: caregiver identification; barriers to care; discharge planning</td>
<td>• Optimizing functional status</td>
</tr>
</tbody>
</table>
**CHALLENGE** in developing the curriculum

## European Oncology Nursing Society curriculum for cancer in older people

<table>
<thead>
<tr>
<th>Modules</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context of cancer in older people</td>
<td>• Analysis of the impact of cancer on an aging society</td>
</tr>
<tr>
<td>Impact of cancer on older people and their carers</td>
<td>• Understanding the impact of cancer on older adults with cancer and their caregivers</td>
</tr>
<tr>
<td>Basic science and treatment of cancer in older people</td>
<td>• Awareness of the differing needs of older adults with cancer</td>
</tr>
<tr>
<td>Nursing assessment and interventions in older people</td>
<td>• Understanding of how cancer develops in older adults and factors that contribute to cancer development in older adults</td>
</tr>
<tr>
<td>Decision making and communication</td>
<td>• Understanding of main cancer treatments, rationale for treatment, and efficacy in older patients</td>
</tr>
<tr>
<td></td>
<td>• Assessment of the multidimensional needs of older adults with cancer</td>
</tr>
<tr>
<td></td>
<td>• Acquisition of skills to communicate effectively and compassionately with older adults with cancer and their families</td>
</tr>
</tbody>
</table>
STRATEGIES to be responsive to future needs

- Research
- Clinical Practice
- Education
Research

- Develop, test, and disseminate easy screening tools to enable proper referrals to multidisciplinary clinics and encourage integrated approaches between oncologist and geriatricians
- Increase the relevance of clinical trials for older patients
- Promote multidisciplinary, basic/translational research on the interface of ageing and cancer
- Research for appropriate care across the cancer continuum, social support issues, quality-of-life factors, cancer treatment efficacy and tolerance, effects of comorbidities, psychosocial issues, and biology of ageing cancer
Clinical Practice

• Develop **interdisciplinary geriatric oncology clinics**, especially in academic institutions and comprehensive cancer centers
• Integrate **geriatric evaluation** into oncology decision-making and guidelines
• Address issues of access to care, including the **needs of the caregiver**, cost of cancer treatment
• Support and adhere to evidence-based clinical practice guidelines and research
Education

- Increase public awareness of the worldwide cancer in the elderly epidemic
- Integrate geriatric oncology in the curricula for medical and nursing education, both during studies and post-graduate education
- Address the shortage of specialist oncologist/geriatricians and allied health staff in geriatric oncology
- Enforce patient education
- Formulate cancer-specific educational strategies
- Need to educate the workforce
Cancer is a global concern. We must address the challenges in preparing the next generation of clinicians, nurses and allied health workers who will care for the aging population with cancer. Continue developing strategies to be responsive to future needs.
References

• Ageing and Health, WHO 2018 at https://www.who.int/news-room/fact-sheets/detail/ageing-and-health
• https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1500929/pdf/tacca117000147.pdf
Credits for graphics

- Continents according to Our World in Data available at https://ourworldindata.org/world-region-map-definitions
- Majority of graphics were taken from the following creators/artists at www.nounproject.com: Rose Alice Design, Tahsin Tahl, Wilson Joseph, Gan Khoon Lay, Rediffusion, Wichai Wi, Georgiana Ionescu, Gregor Cresnar, Lemon Liu, HeadsOfBirds, Sergey Demushkin, Fasobrun Jamil, Dominik Minet, NeMaria, Muharrem Senyıl, Adrien Coquet, Veronika Geertsema König, Nuttapon Pohnprompratahn, IYIKON
Preparing the Next Generation of Clinicians, Nurses and Allied Health workers to the Challenge of Cancer and Ageing

Carmencita D. Padilla, MD, MAHPS
Professor and Chancellor
University of the Philippines Manila