Gender trend over time of Principal Investigators within large Australian Cancer Clinical Trials Groups

VI Thi Thao Luong1,2, Cindy Halan Ho2, Veronica Aedo-Lopez3, Eva Segelow1,3

1. Monash Health, Melbourne 2. School of Clinical Sciences, Monash University, Melbourne 3. University of Bern, Switzerland

Background
Despite increased global effort in promoting gender equity in medicine, progress remains slow, particularly in clinical research and leadership roles. Our study assesses trends in female Principal Investigators (PI) amongst academic Cancer Clinical Trials Groups in Australia.

Methods
The publicly accessible areas of 14 Australian cancer clinical trial group websites were reviewed for trial details in July 2021 including year of registration, details of PI and the presence of any gender policies or statements. Data was available for:
1. The Australasian Gastrointestinal Trials Group (AGITG)
2. Thoracic Oncology Group Australia (TOGA)
3. Breast Cancer Trials (BCT)
4. Australia and New Zealand Gynaecological Oncology Group (ANZGOG)
5. Australia and New Zealand Urogenital and Prostate Cancer Trials Group (ANZUP)
6. Melanoma And Skin Cancer Trials (MASC)
7. Cooperative Trials Group for Neuro-Oncology (CGNNO)
8. The Trans Tasman Radiation Oncology Group (TROG)
9. Australia and New Zealand Sarcoma Association (ANZSA)
10. Palliative Care Clinical Studies Collaborative (PaCCSC)
11. Cancer Research in Primary Care (PC4)

Three groups did not display PI details:
1. The Psycho-Oncology Co-operative Research Group (PaCoRG)
2. The Australian and New Zealand Children’s Haematology-Oncology Group (ANZCHOG)
3. The Australasian Leukaemia and Lymphoma Group (ALLG)

Result
A total of 355 studies from 11 clinical groups were registered between 1994 -2022 and represented by 399 PIs. There were no female PIs in any trial groups prior to 2003.

Table 1. Distribution of principal investigators by gender and disciplines

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Total PIs (n=399)</th>
<th>Male (%)</th>
<th>Females (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical oncology</td>
<td>189</td>
<td>111 (58.7)</td>
<td>78 (41.3)</td>
</tr>
<tr>
<td>Radiation oncology</td>
<td>91</td>
<td>61 (67.0)</td>
<td>30 (33.0)</td>
</tr>
<tr>
<td>Surgical oncology</td>
<td>58</td>
<td>53 (91.4)</td>
<td>5 (9.6)</td>
</tr>
<tr>
<td>Nuclear medicine</td>
<td>8</td>
<td>7 (87.5)</td>
<td>1 (12.5)</td>
</tr>
<tr>
<td>Palliative care</td>
<td>23</td>
<td>11 (47.8)</td>
<td>12 (52.2)</td>
</tr>
<tr>
<td>Others</td>
<td>44</td>
<td>18 (40.9)</td>
<td>26 (59.1)</td>
</tr>
</tbody>
</table>

For trials with sole PI (n=276), 110 were led by women (40%). For trials with multiple PIs (n=58), 28 were led by male PIs (48%) as opposed to 5 by only females (9%) and 25 by both males and females (43%). From 1994-2022, the rate of rise for female investigators within all clinical group is an average of 0.3 PI per 10-years and 0.3 PI per 10-years for medical oncology group but women remain under-represented (Figure 1). Despite having the lowest female PI presence, ANZUP was the only trial group with a gender equity statement.

Conclusion
Despite a slow steady rise of female PI between 1994 and 2022, women have not achieved equity as principal investigators within Australian cancer clinical trials groups. Most groups do not have a publicly available gender policy. Groups without information about investigators gender should be encouraged to make this publicly available.