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Adjuvant Multi-agent Chemotherapy and Tamoxifen Usage Trends for Breast Cancer in the United States

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Overall Adjuvant Therapy Dissemination Trends

Mariotto et al.\(^1\) evaluated trends in the use of adjuvant multi-agent chemotherapy, tamoxifen, and the combination of both treatments for early-stage breast cancer in the United States from 1975 through 1999. These trends were presented as a function of age and stage. To create a broader population-level estimate of the dissemination of adjuvant therapy in the United States, we took this data and aggregated them based upon appropriate yearly age and stage distributions found in the SEER registry. Weighted averages were then obtained for tamoxifen only, chemotherapy only, both, and the overall total adjuvant therapy usage trend.

The appendix contains the details behind the calculations.

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APPENDIX

Age distribution in SEER by year:

Number of patients of each age group by year of diagnosis

Percentage of patients of each age group by year of diagnosis
Fraction treated for Stage II+/IIIA, weighted average based on age distribution:
Fraction treated for Stage II-, weighted average based on age distribution:

**Figure 1.**
Fraction treated for Stage I, weighted average based on age distribution:

- Multi-agent chemotherapy only
- Tamoxifen only
- Both Chemotherapy and Tamoxifen
- Total
Stage distribution in SEER by year:

Characteristics of tumor stages (as outlined by the AJCC)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>2 cm or less; node negative</td>
</tr>
<tr>
<td>Stage II-</td>
<td>2 cm or less; 1-3 positive nodes or 2-5cm; node negative</td>
</tr>
<tr>
<td>Stage II+/III</td>
<td>2 cm or less; &gt;9 positive nodes or 2-5cm; 1 or more positive nodes or &gt;5cm</td>
</tr>
</tbody>
</table>

Number of patients in each stage group

[Graph showing the number of patients in each stage group from 1975 to 1999]

Percentage of patients in each stage group

[Graph showing the percentage of patients in each stage group from 1975 to 1999]
Weighted By Both Age and Stage:

- Tamoxifen only
- Chemotherapy only
- Both
- Total