Co-morbidities in Elderly Breast Cancer Patients treated with Chemotherapy

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Presenter Disclosure Information

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None.

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None.

Introduction

- Chemotherapy intensity (CI) is well known to increase the risk of myelosuppression and risk for febrile neutropenia and potential infectious hospitalization risk.
- Co-morbidity and severity of disease may also impact how clinicians select chemotherapy intensity particularly in elderly Medicare populations.
- We characterized the relationship of CI with age, co-morbidities/severity of disease, and antibiotic/GCSF supportive care using Medicare claims data.

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Methods

- **Cohort**: Elderly (ages 65+) breast cancer patients who initiated their first course of chemotherapy between 7/1/2007 and 11/30/2011.
- **Data**: 20% Medicare sample with Parts A and B coverage
- **Chemotherapy Intensity (CI)** was approximated by the number of different IV agents reported on claims during the first cycle of therapy.
  - **Classified into low (1 agent), medium (2 agents), and high (3+ agents)**
- **Co-morbidity, prior hospitalizations and age** were defined in the 6 months before chemotherapy initiation.
- **Timing of initial G-CSF and antibiotics use** were identified during the first cycle of chemotherapy.
  - **On or before day 5 = day 0 (1st day of cycle) through day 5 of 1st cycle**
  - **After day 5 = day 6 of the 1st cycle until the earliest of the end of the 1st cycle or the censor date (death or end of coverage)**

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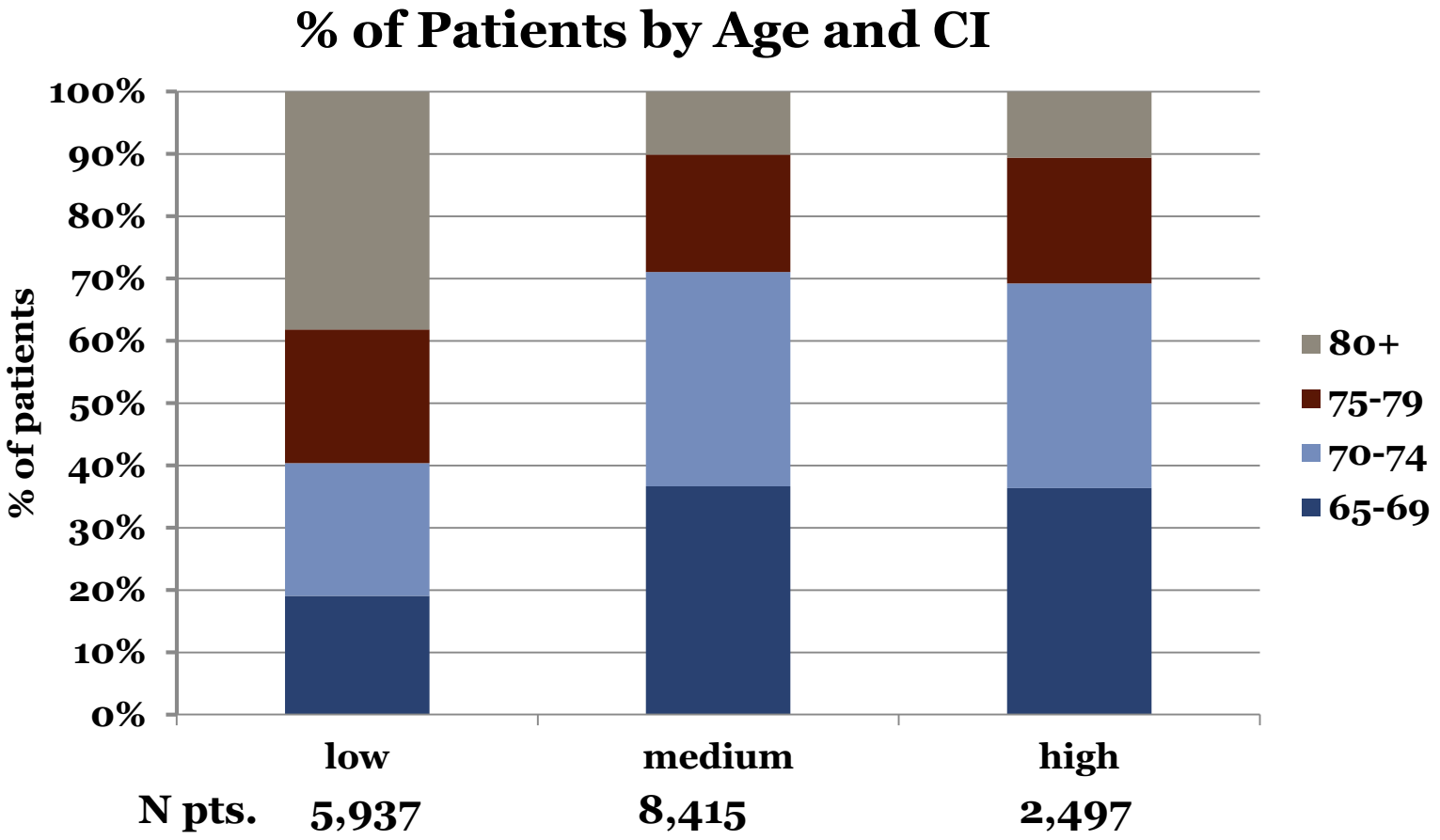
Age Influences Choice of Chemotherapy Intensity



- Patients 80+ y/o were more likely to receive less intensive chemotherapy.
- Patients < 75 y/o age are more likely to receive more intensive chemotherapy.

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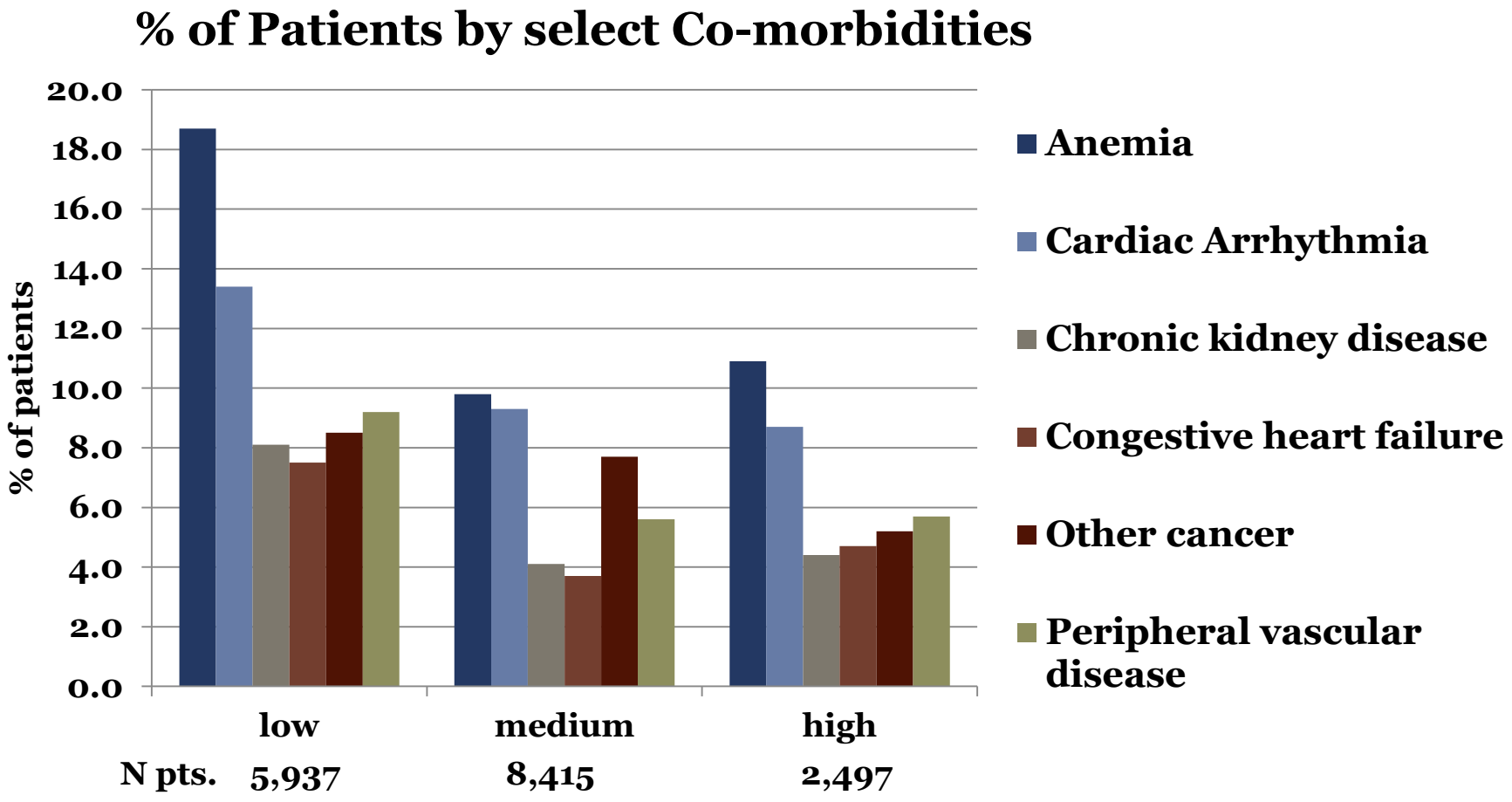
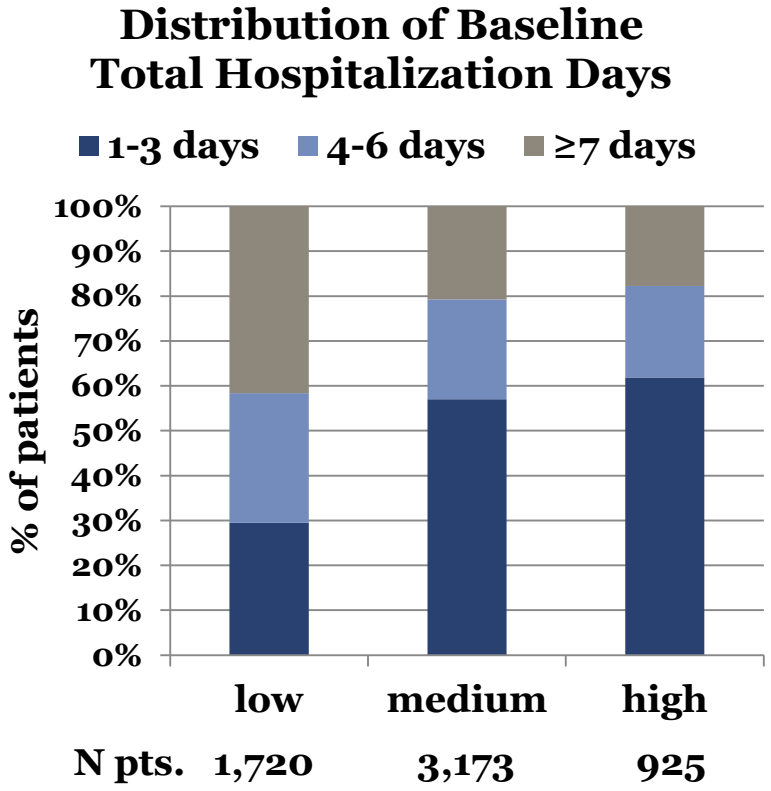
Co-morbidity Profile Influences Choice of CI



- Patients treated with low CI have greater co-morbidities than those treated with higher intensity regimens.

Prior Hospitalization Influences Choice of CI

- 29% of low CI pts. and 37% of medium and high CI pts. had at least one hospitalization during the 6 months prior to chemotherapy



- **<u>Of the patients with at least one baseline hospitalization</u>**:
  1) 42% (low CI), 21% (medium CI), and 18% (high CI) patients had **7 or more total hospital days** during baseline
  2) 16.4% (low CI) and ~8% (medium and high CI) patients were hospitalized for **infection**
  3) 14.8% (low CI) and ~7% (medium and high CI) patients were hospitalized for **cardiovascular disease**

Baseline hospitalizations were defined as at least an overnight stay during the 6 months prior to chemotherapy initiation.

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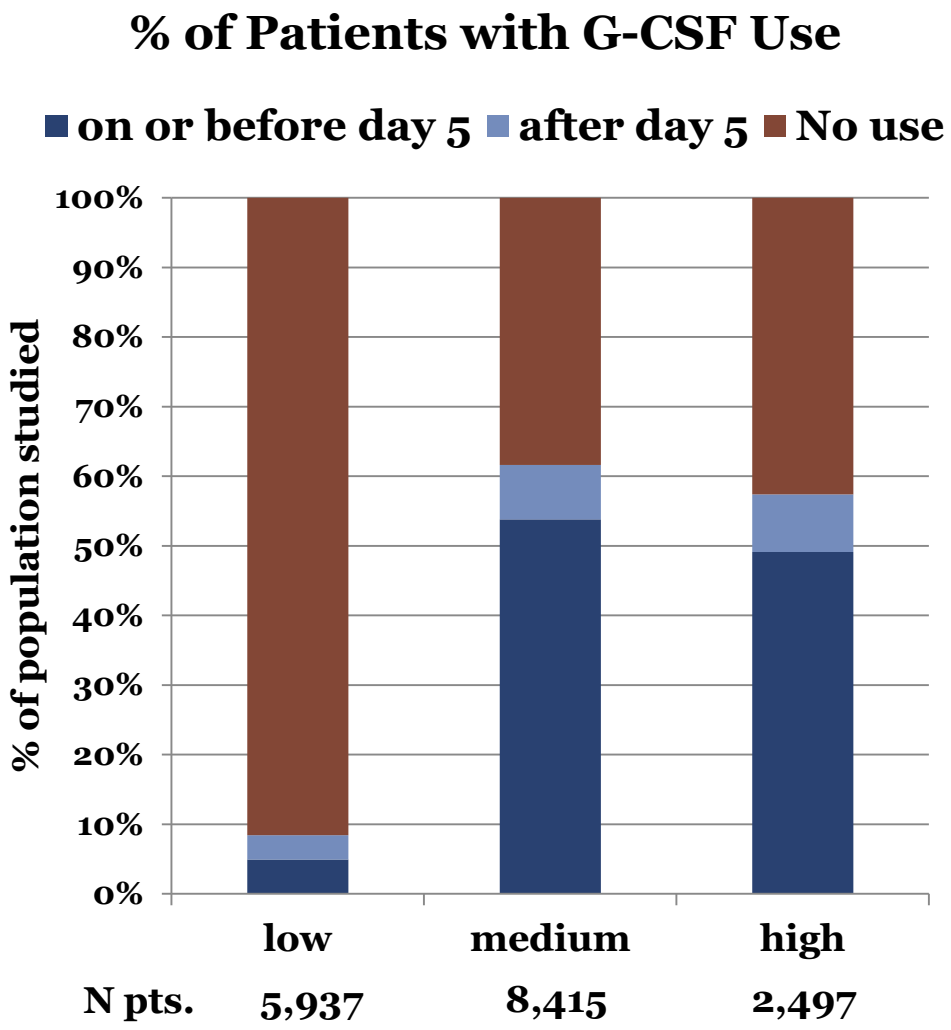
GCSF Is Used More Frequently With Higher Intensity Regimens



- Overall, GCSF is used more frequently in BC patients receiving higher intensity chemotherapy.
- Prophylactic use is more common with higher intensity regimens.
- Non-prophylactic use (after day 5) is also more frequently used with higher intensity regimens.

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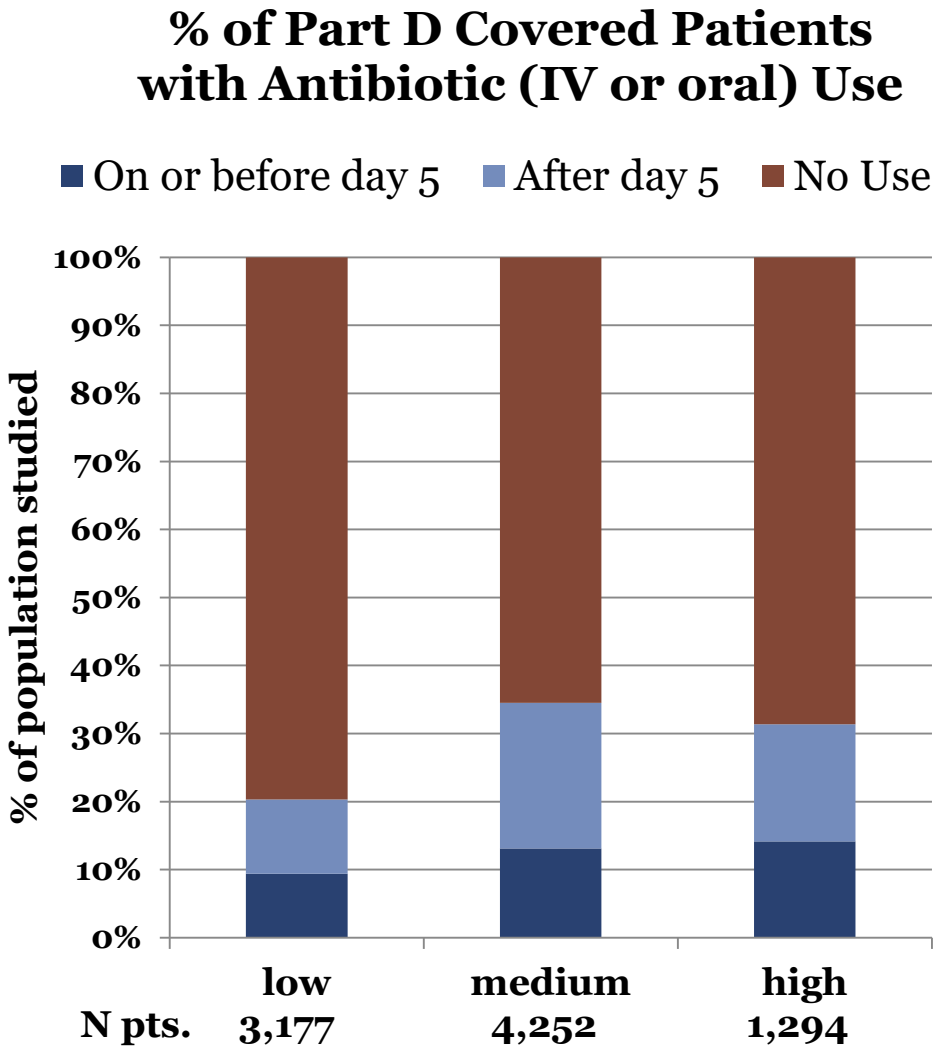
Oral Antibiotics Are Used More Frequently in BC Patients Treated With Higher Intensity Regimens



- Overall, antibiotics are not frequently used as supportive care in the Medicare BC population.
- Prophylactic use (on or before day 5) is more common with higher intensity regimens.
- Non-prophylactic use (after day 5) is also more frequently used with higher intensity regimens.

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Conclusions

- In the Medicare BC population, patients receiving less aggressive chemotherapy were older and more likely to have co-morbidities, suggesting practitioners likely use these criteria to determine CI.

- Supportive care with GCSF and antibiotic use was also more prevalent in patients receiving higher intensity chemotherapy regimens.
  - Further studies are warranted to examine the benefit of supportive care measures at preventing febrile neutropenia or infectious complications related to CI.

- In light of the potential for changing Medicare reimbursement for chemotherapy, these data show that decisions about bundling payments may need to consider patient age, co-morbidity, and prior hospitalizations.

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