United States real-world drug utilization patterns and associated overall survival in Medicare patients with newly-diagnosed metastatic triple negative breast cancer using Surveillance, Epidemiology, and End Results-Medicare data

BACKGROUND

- Triple negative breast cancer (TNBC) refers to patients not expressing the estrogen receptor (ER), progesterone receptor (PR) or Her2/neu (HER2) receptor.
- TNBC accounts for approximately 15% of all breast cancer cases.
- As most chemotherapies target one of the receptors, TNBC is more difficult to treat.
- Resistance to standard therapies, such as anthracyclines or taxanes, limits treatment options for previously treated patients with metastatic TNBC (mTNBC) to a small number of non-cross-resistant regimens.
- Limited information exists regarding treatment patterns for elderly patients with mTNBC. The analysis characterized treatment patterns and associated survival among Medicare patients with mTNBC in a real-world setting.

METHODS

- Patients ≥66 years of age who were newly diagnosed with mTNBC between 2004 and 2009 were identified. Patients with cancer diagnosis code during a non-consecutive year (n=1,119) were excluded. Patients with prior chemotherapy (n=26,801) were excluded. Patients with prior surgical resection (n=5,191) were excluded. Patients with prior hospitalization for cancer (n=5,849) were excluded.
- Since HER2 was unavailable from 2004-2009, patients with claim for a HER2 test followed by no hormonal therapy were assumed to be HER2 negative.
- Patients were followed from diagnosis to the first of death, Medicare disenrollment, HMO enrollment, or 12/31/2013 to characterize the sequence of chemotherapy received as first (1R), second (2R), or third or more regimens (3R).
- OS estimates based on drug utilization patterns were reported using the Kaplan-Meier method.

RESULTS

- The proportion of patients using combination chemotherapy was higher in 2R and 3R patients compared to 1R patients. Compared to 1R patients, 2R patients were significantly younger (median 72 vs 75 years), more frequently married (40% vs 30%), had lower CCI. (Not reported per data user agreement).
- Among 317 treated patients, those who received more regimens had higher CCI and 30% of patients used combination chemotherapy.
- Table 3: Factors associated with receipt of first, second, and third or more regimens

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Figure 3: Duration of each regimen and timing in the mTNBC Cohort

CONCLUSIONS

- Half of Medicare patients with mTNBC do not receive chemotherapy.
- Older than 80 years were less likely to receive 1R, 2R, or 3R+ vs younger (66-79) years.
- Married patients were 2.7 times more likely to receive 2R and 6.3 times more likely to receive 3R+ compared to single patients. Separated/divorced patients were less likely to receive 3R+.
- Sicker (CCI>2) were less likely to receive 2R compared to patients without comorbidities (CCI=0) with tumor size ≥70mm were 2.7 times more likely to receive 3R+ vs those with tumor size <70mm.

Survival based on drug utilization patterns

- Median OS OS was 7 months (95% CI: 7-9 months) for all patients and ranged from 3.5% (1.7-5.3 months) in patients with no regimens to 53% (41-58 months) in patients with 3R+ regimens.

Figure 4: Overall survival of patients with mTNBC by number of regimens

REFERENCES


SPONSORSHIP

This research was funded by Celldex Therapeutics, Inc., Hampton, NJ.

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