Category: Data Analysis – Work in Progress – Faculty

A Comparison of Demographic and Clinical Characteristics of Medicare Fee-for-Service and Medicare Advantage Enrollees With Breast Cancer in North Carolina

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1. Background
In North Carolina, the proportion of Medicare beneficiaries enrolled in Medicare Advantage plans (MA) has more than doubled in the last 15 years; from 2013 to 2021 MA enrollment increased from 20 percent to 45 percent of all Medicare beneficiaries. There is little comparative information available about demographic and clinical characteristics of MA versus traditional fee-for-service (FFS) beneficiaries particularly as it relates to condition-specific populations such as breast cancer patients.

2. Goals
In these descriptive analyses we compare demographics, tumor characteristics, and receipt of cancer specific treatment among North Carolina MA and FFS beneficiaries for the years 2015-2020.

3. Solutions and Methods
We studied a population-based, retrospective cohort (n=8,116) of female breast cancer patients in North Carolina for the years 2015 to 2020 enrolled in either MA or FFS. Data were provided by the Cancer Information and Population Health Resource, which links the North Carolina Central Cancer Registry to insurance claims and sociodemographic data. We included patients >18 years with Stage I-III breast cancer who received cancer-related surgery within 6 months of their date of diagnosis. Patients were required to be enrolled in MA or FFS for 6 months before diagnosis, the month of- and 6 months after diagnosis. We classified patients as MA if they had MA coverage for the full 13 months, and classified patients as FFS if they had FFS with no MA for the full 13 months.

4. Outcomes
A total of 4,942 (61%) were enrolled in FFS and 3,174 (39%) enrolled in MA. No differences were observed in age at diagnosis, Hispanic ethnicity, Social Deprivation Index within zip code of residence, stage at diagnosis, or time from date of diagnosis to initial cancer specific surgery. MA enrollees were more frequently of Black race and residing in urban, rather than rural zip codes compared to FFS enrollees (20.5% versus 15.3% and 78.2% versus 71.6%, respectively).

Within the FFS group, time to surgery was longer for Black patients than non-Black (mean difference=4.8 days; 95% CL: 2.3, 7.2); time to surgery was also longer for Black patients versus non-Black within the MA group (mean difference=8.7 days; 95% CL: 6.0, 11.4). Small rural-urban differences were observed within groups in terms of time to surgery.

5. Lessons Learned and Future Directions
These analyses indicate racial and geographic enrollment differences between the two types of Medicare within North Carolina. Within each Medicare type, we observed racial differences in the time to first treatment, however these differences may not be clinically meaningful. Further work is needed to examine whether the quality of services provided by these plan types are similar across race/ethnicity and geography. Additional work in this area will be helpful for beneficiaries in making coverage decisions and for policymakers in understanding how to provide similar quality of service between MA and FFS across race groups and geographies.