

1572P Is age a barrier to chemotherapy? Rates of treatment in older patients with breast, colon or lung cancer in England in 2014: A national registry study

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Background: Survival from cancer in older patients is poorer in the UK than other countries with similar health systems and wealth possibly due to undertreatment and increased toxicities in this specific population. This population-based observational study describes factors affecting systemic anticancer treatment (SACT) use in older patients in England.

Methods: We identified patients aged ≥ 70 with stage II-III breast cancer, stage III colon cancer and stage IIIB-IV non-small cell lung cancer (NSCLC) diagnosed in 2014 from a dataset collected by the National Health Service in England. We used logistic regression to estimate factors affecting likelihood of receiving SACT and performed separate regression analyses for each disease, adjusting for age, gender, stage at diagnosis, pathological features, performance status, Charlson comorbidity index, ethnicity and socio-economic group. We assessed 2-year overall survival (OS) using Kaplan-Meier method. Case mix adjusted treatment rates and workload volume were calculated at hospital level and presented using funnel plots, stratified by age groups (<70 and ≥ 70) to allow for assessment of variation between centres.

Results: 36892 patients were identified: 19879 with stage II-III breast cancer, 5292 with stage III colon cancer and 11721 with stage IIIB-IV NSCLC. Patients over 70 were less likely to receive SACT compared to those aged under 70: breast 11.7% vs 64.6%, $p < 0.001$; colon 37.4% vs 79%, $p < 0.001$; NSCLC 33.5% vs 60.2%, $p < 0.001$. 2-year OS for patients receiving SACT was similar for patients aged ≥ 70 and <70 : breast 91.5% (95% CI: 89.3%-93.2%) vs 96.4% (95% CI: 95.9%-96.7%); colon 84.8% (95% CI: 82.6%-86.8%) vs 88.3% (95% CI: 86.7%-89.8%); NSCLC 16.7% (95% CI: 15.1%-18.4%) vs 19.8% (95% CI: 18.5%-21.1%). Patients receiving SACT had better OS than those untreated. SACT rates varied widely between hospitals after adjusting for case-mix across all ages.

Conclusions: Our study suggests that several factors affect the likelihood of receiving SACT but after adjusting for these, age remains determinant. Identifying hospitals with significantly lower SACT rates should prompt local review of multidisciplinary team practice.

Legal entity responsible for the study: Public Health England.

Funding: Has not received any funding.

Disclosure: All authors have declared no conflicts of interest.