



Abstract of parallel session: 13

Title: Geographic and socioeconomic variation in breast cancer treatment in Scotland: an empirical analysis using linked patient-level data

Presenting Author(s): Ewan Gray¹, Joachim Marti²
Institutes: 1) Usher Institute of Population Health (Edinburgh)
2) Institute of Social and Preventive Medicine (Lausanne)
3) Cancer Research UK Edinburgh Centre (Edinburgh)
4) University of Edinburgh (Edinburgh)
5) Wessex Institute (Southampton)

Authors (s): Ewan Gray¹, Joachim Marti², Peter Hall³, David Brewster⁴, Jeremy Wyatt⁵
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Abstract

Breast cancer incidence, prognosis and outcomes are associated with socioeconomic status in Scotland. Variation in outcomes may be partly explained by differences in treatment access and decisions. A crucial element of care for early breast cancer are adjuvant therapies (hormone, chemo and targeted therapy); evidence-based guidelines recommend adjuvant therapies whenever treatment benefit is considered sufficient to outweigh the associated risks. This study uses high-quality population based data obtained from linked Scottish health records to explore socioeconomic and geographic variation in adjuvant therapy use. Cases of primary early stage breast cancer from 2001 to 2015 (N=44,044) were extracted from the Scottish cancer registry and linked to other routine healthcare data (i.e. inpatient, outpatient and others). Cases eligible for adjuvant therapies were selected based on clinical characteristics. Estimates of the association between socioeconomic status, adjuvant therapy use and mortality will be provided. Further analysis will address two key overlapping dimensions of variation in treatment: regional variation and variation by expected benefits (prognosis). Regional variation may partly explain socioeconomic variation but also may interact creating stronger socioeconomic gradients in some regions. In Scotland, there are important known regional effects that are not explained by standard socioeconomic measures such as the 'Glasgow effect'. The possibility of such effects will be explored in relation to breast cancer. Looking at the relationship between expected treatment benefit, based on clinical factors, and adjuvant therapy use across different socioeconomic groups can help to reveal part of the mechanism for any observed gradient, whether this reflects differences in access, presentation or decision making. This will aid understanding of socioeconomic variation and design of policy to address health inequalities in breast cancer.