Cancer trial participation for vulnerable patients in Denmark and England – using synthetic data to …

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**Introduction**

In recent years new medicines used in systemic anti-cancer therapy (SACT) have been

successful in reducing cancer mortality. However, there are concerns regarding the potential impact of non-biological factors, such as socioeconomic status (SES), on patients access to these new and often expensive treatments. Currently evidence of differences in treatment across patients SES is limited. The purpose of the study was to assess the extent of inequality in use of SACT and to identify groups of patients experiencing reduced treatment.

**Materials and methods**

We compared patients ≥18 years treated with SACT for two population-based cohorts, one England (2013 - 2017 the other North Denmark Region (2008 – 2021).We defined socioeconomic positon (SEP) for the English data through deprivation scores (neighbourhood SEP) and in Denmark using a social vulnerability index (individual SEP). Outcome were defined as having received any SACT labelled as utilized in a clinical trial.

**Results**

(Preliminary partly synthetic results) The cohort included 15827 patients,

treated within the period, where 2620 (16.6%) were categorized as vulnerable. We found no clear pattern of decreased use of immunotherapy for vulnerable patients. For IV treatments we found a 17% (95% CI, 10% to 23%) lower utilization for vulnerable men and 7% (2% to 12%) lower utilization for vulnerable women. These effects were mostly consistent across cancer sites. Male and female vulnerable patients on average received 7% (5% to 10%) fewer different SACT drugs and accumulated 31% (22% to 38%) less in total SACT costs.

**Conclusions**

We found a

reduced number of IV treatments, number of different SACT drugs, and total cost of SACT used in treatment of vulnerable patients. To what degree these differences in treatment can be explained by patient/tumor characteristics at start of treatment, and how they are associated with differences in survival will be the next step in analyzing the data.