Hospital costs of patients with advanced breast cancer increase towards the end of life – but there are several distinct latent subgroups with divergent cost trajectories.

Variability of cost trajectories over the last year of life in patients with advanced breast cancer in the Netherlands

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Objective
To explore the longitudinal patterns of costs of patients with metastatic breast cancer in the Netherlands over the last year of life.

Methods
Setting & Patients
- 558 metastatic breast cancer patients
- Observational study (2010–2017) in 7 hospitals in the Netherlands
- Data from medical records, collected through the SONABRE Registry

Analysis
- Hospital resource use and associated costs (in 2017 €) were assessed over the last twelve months before death
- Group-based trajectory modeling was applied to identify latent groups of cost trajectories
- Zero-inflated Poisson models were fitted with up to 9 clusters and 5 degree polynomials, model selection based on AIC, BIC, and LOOCV
- Differences between latent groups were investigated

Results

Conclusions
- The hospital costs of patients with advanced breast cancer increased towards the end of life, driven by inpatient admissions
- We uncovered six latent patient groups, with distinct cost trajectories, which did not reflect the overall increasing trend
- Latent groups differed with respect to their clinical characteristics however, clear-cut profiles could not be identified