Use of unscheduled care during the wait from referral to first cancer treatment in Scotland

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Background

Unscheduled care (USC) is an increasing pressure within the NHS (1). During the wait from referral to treatment, some patients may experience deterioration or escalating symptoms that can lead to use of USC. High levels of USC during this phase in the pathway may reflect unmet needs, inefficiencies in care coordination or broader system pressures (2). Some use of USC may be clinically appropriate or unavoidable (depending on clinical and patient factors), however other episodes may reflect structural barriers.

Most research has focused on USC in the last year of life. Little is known about USC between urgent cancer referral and first treatment. Understanding which patient groups are at risk during this period could target support and improve equitable cancer care.

Methods

All GP Cancer Waiting Times referrals from 2019-2022 (n=29,413) were linked to the Unscheduled Care Datamart, Cancer Registry and inpatient records by Community Health Index number for the first time in Scotland. The cohort included those who were diagnosed with breast, colorectal, cervical, lung, prostate or upper GI cancers.

Multiple logistic regression models determined univariate and multivariate associations between predictor variables (gender, age, Scottish Index of Multiple Deprivation (SIMD), Charlson Comorbidity Score, cancer type and stage at diagnosis) and USC use.

Unadjusted and adjusted odds ratios were calculated for the overall cohort and stratified by cancer type.

Results

Use of USC between cancer referral and treatment varied by clinical and sociodemographic factors, highlighting inequalities in patient need, experience and system response.

Cancer type was the strongest predictor: **49.7%** of upper GI patients used USC, followed by cervical (**37.8%**), and lung (**33.5%**). Breast had the lowest USC use (**9.1%**).

After adjustment, cancer type remained the strongest predictor, though reduced (upper GI adjusted OR **6.87**), reflecting underlying differences by deprivation and stage.

There was a linear relationship between area deprivation and USC use: the odds of using USC were highest for people living in the most deprived areas compared to the least deprived (unadjusted OR **1.54**, adjusted OR **1.31**).

Separate models by cancer type revealed specific groups which might require further support: after adjusting for other variables females with upper GI cancer were more likely to use USC than males (OR **1.23**); in lung cancer, younger people were more likely to use USC than older groups (OR **0.73**).

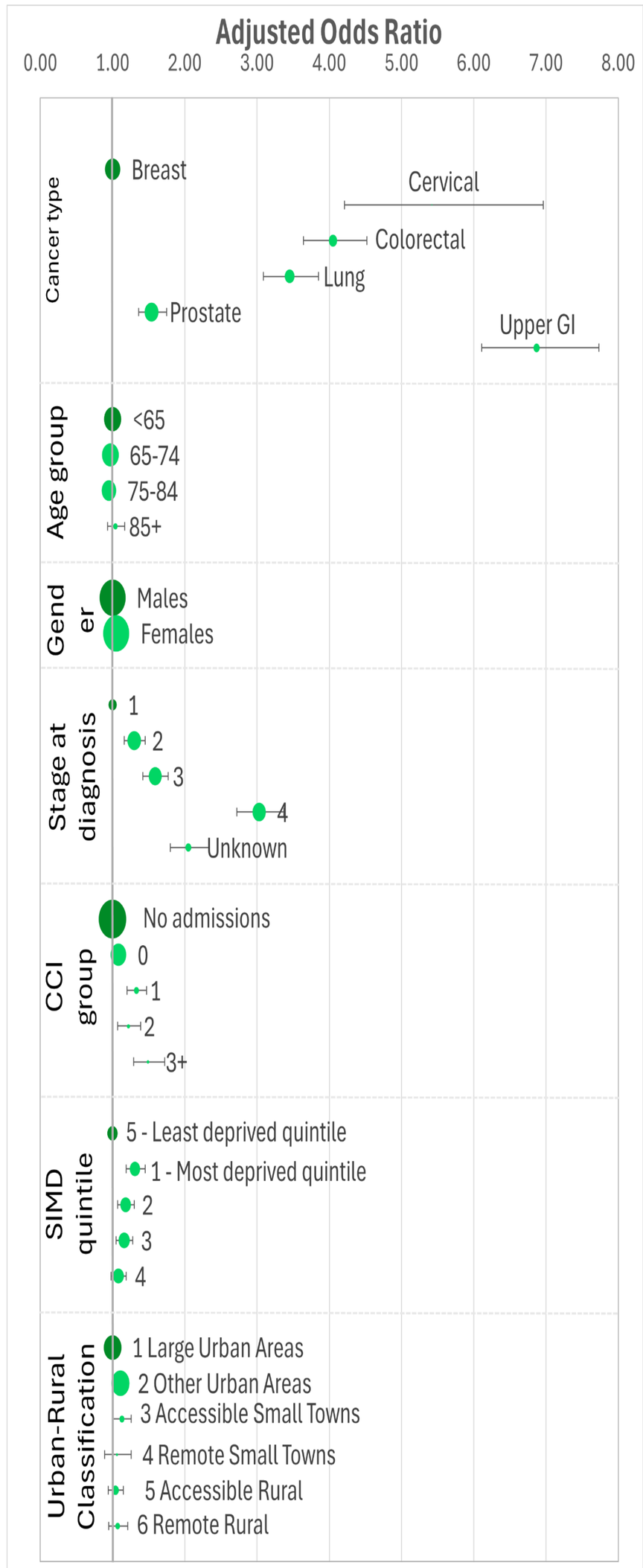

***Figure**: Proportion of unscheduled care and odds ratio by explanatory variable*

Conclusions

USC use during the time from referral to treatment is determined by clinical need and sociodemographic factors.
USC could impact patient experience and add resource demands alongside complexity to pathways.

Service planners should consider what additional support could be anticipated to prevent USC and assist effective system navigation.

While cancer type was the strongest predictor of USC, deprivation also contributed. These inequalities need to be further studied to understand how they may be mitigated in the future.

1. National Audit Office. (2023). Access to unplanned or urgent care. Access to unplanned or urgent care. Accessed: May 2025
2. Public Health Scotland (PHS). (2022) Healthcare standards; Urgent and unscheduled care. https://www.gov.scot/policies/healthcare-standards/unscheduled-care/ . Accessed: May 2025.

This research uses data provided by patients and collected by the NHS as part of their care and support.