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Differences in inequalities of uterine cancer treatment before and after COVID-19 in England

Hannah R Brewer, Caoimhe T Rice, Caitlin Winton, Seth Jarvis, Mico Hamlyn, Jennifer Davidson

All authors employed by CorEvitas, Specialty EMR Data division.

OBJECTIVE

We aimed to describe inequalities in uterine cancer before and during the COVID-19 pandemic.

KEY FINDINGS

There were 11,231 women in England diagnosed and treated for uterine cancer between April 2018 and March 2022. Overall, a smaller proportion of women living in the most deprived geographies were diagnosed with uterine cancer compared with those living in the least deprived geographies.

KEY FINDINGS CONTINUED

Compared to before the COVID-19 pandemic, the proportion of uterine cancer diagnoses which occurred among women living in the most deprived geographies decreased during the pandemic.

CONCLUSIONS

Uterine cancer diagnosis decreased after the onset of COVID-19, possibly due to reduced healthcare interactions, this decrease was most notable among women living in the most deprived geographies in England.

BACKGROUND

- Uterine cancer is the most common gynaecological cancer and 4th most common cancer in women.
- Uterine cancer is more common among older women, women of black ethnicity, and those living in more socially deprived areas.
- Throughout the pandemic, the number of 2-week wait referrals and first treatments for all cancer decreased the most among those living in poorer areas [1].
- There is a commitment in the NHS Long Term Plan to improve early diagnosis and survival of cancer and a focus on tackling disparities among women's healthcare experiences in the Women's Health Strategy for England [2].
- We aimed to describe in inequalities in uterine cancer before the pandemic in relation to those which occurred during the pandemic.

METHODS

Study design: Descriptive retrospective cohort study

Data source: Hospital Episodes Statistics (HES) admitted patient care and outpatient datasets

Inclusion criteria:

- Women[a] aged ≥18 years
- First ICD-10 code for uterine cancer (C54.0, C54.1, C54.2, C54.3, C54.8, C54.9, C55*, C57.3) in study period
- Treated under gynaecological and oncological specialties (370, 502, 503, or 800)

Study periods:

Before pandemic: 1 April 2018 – 31 March 2020

During pandemic: 1 April 2020 – 31 March 2022

Method: Compared age, ethnicity, and socioeconomic profile (Indices of Multiple Deprivation) of women diagnosed before and during COVID-19 pandemic using χ^2 tests

[a]Self-defined female

RESULTS

- 11,231 women in England were diagnosed and treated for uterine cancer during the study period.
- Age, ethnicity, and deprivation of patients at baseline are shown in *Table 1*.

Characteristic	Before pandemic (N=6,177)	During pandemic (N=5,054)
Age group	**N (%)**	**N (%)**
18-39	124 (2.0)	81 (1.6)
40-49	290 (4.7)	184 (3.6)
50-59	1,285 (20.8)	1,050 (20.8)
60-69	1,868 (30.2)	1,581 (31.3)
70-79	1,822 (29.5)	1,487 (29.4)
80+	788 (12.8)	671 (13.3)
Ethnicity		
White	4,641 (75.1)	3,620 (71.6)
Black	115 (1.9)	104 (2.1)
South Asian	187 (3.0)	154 (3.0)
Mixed/Other	178 (2.9)	150 (3.0)
Missing	1,056 (17.1)	1,026 (20.3)
Level of deprivation (based on IMD quintile)		
1 (most deprived)	1,005 (16.3)	739 (14.6)
2	1,166 (18.9)	1,033 (20.4)
3	1,334 (21.6)	1,049 (20.8)
4	1,330 (21.5)	1,116 (22.1)
5 (least deprived)	1,296 (21.0)	1,090 (21.6)
Missing	46 (0.7)	27 (0.5)

Table 1. Baseline characteristics
IMD = Indices of multiple deprivation

- There was no difference in age or ethnicity among women diagnosed before and during the pandemic.
- Overall, fewer women from the most deprived quintile were diagnosed compared with the least deprived ($P = 0.034$).
- Uterine cancer diagnoses fell among the most deprived women during the pandemic (14.6%, vs 16.3% pre-pandemic; $P = 0.04$).
- The intersectionality between age, ethnicity and deprivation is shown in *Figure 1*. There were similar distributions of age and ethnicity for the most and least deprived population before and during the pandemic.

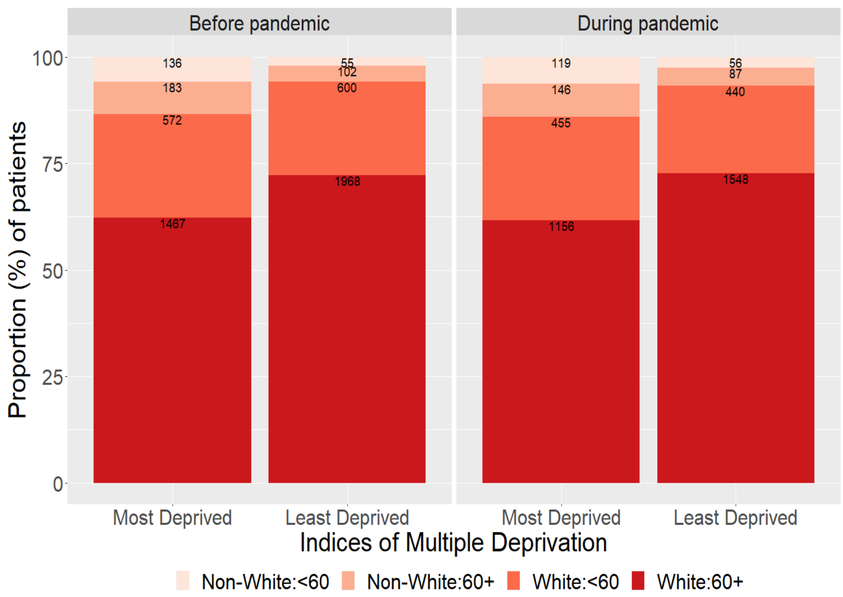

Figure 1. IMD intersectionality between age and ethnicity among uterine cancer patients in England pre- and post-COVID-19
Most deprived = lowest 5 IMD deciles, Least deprived = highest 5 IMD deciles

CONCLUSIONS

- Diagnosis of uterine cancer decreased after the onset of COVID-19, likely due to reduced non-COVID-19 healthcare interactions.
- Prior to COVID-19, there were fewer women from the most deprived areas of England with a uterine cancer diagnosis which reduced further after the onset of the pandemic.
- This finding warrants further investigation to ensure equal access to care.

STRENGTHS AND LIMITATIONS

- National dataset that includes all NHS-funded secondary care reimbursable activity in England.
- Capturing an inpatient diagnosis requires hospital admission, but patients are less likely to be admitted when diagnosed. Diagnosis in outpatient is more likely to occur, but the coding for this is not as reliable due to differences in reimbursement processes.

FUTURE WORK

- Investigate presentation, diagnosis, and treatment delay differences between socially mobile and deprived populations using linked primary and secondary care data.

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DISCLOSURES
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REFERENCES

1. Watt T, Sullivan R, Aggarwal A. Primary care and cancer: an analysis of the impact and inequalities of the COVID-19 pandemic on patient pathways. BMJ Open. 2022
2. Department of Health and Social Care. (2022). Women's Health Strategy for England. www.gov.uk/official-documents.