CHIEF SCIENTIST OFFICE

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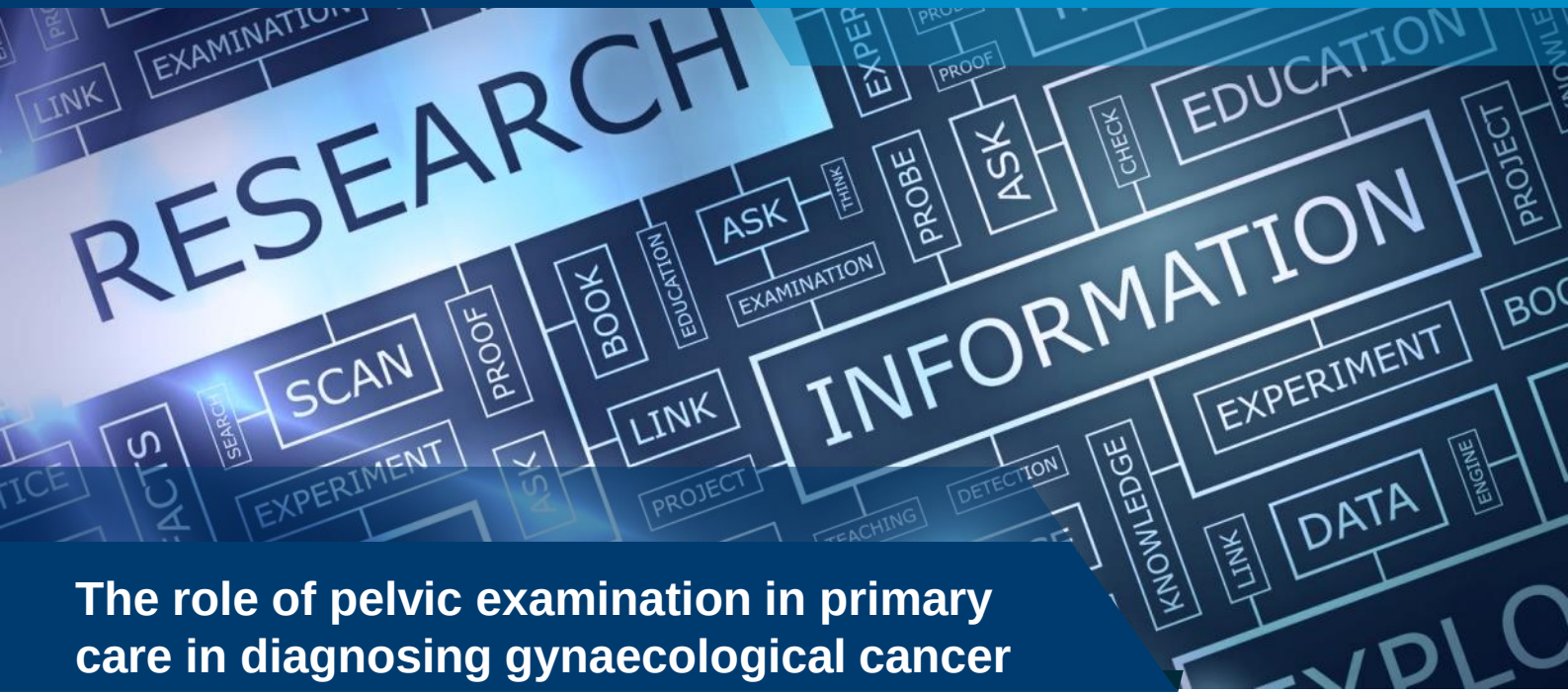
RESEARCH PROJECT BRIEFING



The role of pelvic examination in primary care in diagnosing gynaecological cancer

AIMS

Gynaecological cancers, the second most common female cancer type have poorer survival rates in the UK compared to other high income countries.
The aim of this study was to determine which patient and GP factors contribute to delay in the pre-hospital diagnostic journey of women diagnosed with a gynaecological cancer and the role of pelvic examination in their diagnostic journey.

KEY FINDINGS

- Diagnostic delay is multifaceted and complicated
- Patients in the UK appear to be reluctant to approach their GP with possible cancer symptoms especially if they have low educational attainment, income and symptom knowledge
- Referral delay is more likely if GPs have low symptom knowledge or a low suspicion of cancer
- Pre-referral pelvic examination appears to be underperformed despite the recommendation that it is a central part of pre-referral assessment of women with symptoms of gynaecological cancer
- In the study population, only half of women (49.7%) diagnosed with a gynaecological cancer had a pre-referral pelvic examination
- Women who presented with at least one gynaecological symptom are more likely to undergo pre-referral pelvic examination
- Pre-referral pelvic examination is associated with early stage cancer at diagnosis
- Capability to perform pelvic examination is determined by both under and post-graduate learning opportunities in combination with continued clinical exposure
- Barriers to performing pelvic examination in primary care include insufficient consulting time and availability of equipment. The requirement to have chaperones during intimate examination such as pelvic examination also acted as a barrier
- Barriers to examination were more likely to be seen as insurmountable if motivation was poor

WHAT DID THE STUDY INVOLVE?

To identify the factors which influence patient and GP delays in the diagnostic pathway of gynaecological cancers a systematic review of the published research literature was conducted. The same methodology was used to explore the use, quality and effects of pelvic examination in primary care in the detection of gynaecological cancer. The literature reviews demonstrated some association between pre-referral pelvic examination and reduced diagnostic delay and cancer stage at diagnosis. To explore this association further a linked data study, set in NHS Grampian, was designed. Primary and secondary care clinical data of women diagnosed with a gynaecological cancer were linked and analysed to determine if pre-referral pelvic examination was associated with early stage cancer at diagnosis. Qualitative enquiries with general practitioners and secondary care gynae-oncologists were conducted to explore the facilitators and barriers to performing pelvic examination in primary care. The public were not involved in this project.

WHAT WERE THE RESULTS AND WHAT DO THEY MEAN?

Patient Factors which contribute to delay (literature review)

- Women of lower educational attainment and income are more likely to delay presentation
- Women with poor symptom knowledge are more likely to delay presenting to their GP
- Older women and those who are housebound are more likely to present earlier compared to women of working age
- Women delay going to the doctor because they fear wasting the doctor's time, worry about what the doctor might find and because they feel embarrassment
- Women are less likely to delay seeing a female GP

GP Factors which contribute to delay (literature review)

- GPs are more likely to delay referring women with lower educational attainment and incomes
- GPs are less likely to refer premenopausal women and those over the age of 60
- Bleeding symptoms reduce delays while women with gastrointestinal symptoms are more likely to face delay
- Lack of suspicion of malignancy leads to delay
- Not doing a pelvic examination leads to delay
- Referral to non-gynaecological specialties and omission of clinical details from referral letters all cause delay
- Poor access to diagnostic services leads to delay

Factors associated with late stage cancer

Characteristic	Adjusted Odds Ratio (CI)**	*p* value
Age Categories	1.65 (1.16, 2.36)	0.01*
Urban/rural location	1.19 (0.44, 3.21)	0.74
Deprivation quintiles		0.96
1 vs 5	1.02 (0.31, 3.37)	0.97
2 vs 5	1.32 (0.47, 3.72)	0.59
3 vs 5	1.03 (0.37, 2.84)	0.95
4 vs 5	0.86 (0.36, 2.06)	0.73
Referral Urgency Status		0.11
Inapplicable	0.42 (0.12, 1.39)	0.15
Routine vs urgent suspected cancer	0.29 (0.10, 0.85)	0.02*
Urgent vs urgent suspected cancer	0.65 (0.29, 1.48)	0.31
PE at referral	0.95 (0.36, 2.52)	0.91
No PE performed in primary care	4.54 (2.05, 10.05)	< 0.000*
No gynaecological symptom (s) at presentation	4.37 (1.75, 10.88)	0.002*
Comorbidity		0.75
No comorbidities vs ≥ 3	0.68 (0.25, 1.86)	0.45
1-2 comorbidities vs ≥ 3	0.74 (0.28, 1.93)	0.54
Categorised primary care interval		0.37
Immediate referral vs > one month	0.94 (0.31, 2.83)	0.91
Within one week vs > one month	1.86 (0.72, 4.83)	0.20
Within one month vs > one month	1.75 (0.68, 4.51)	0.25
Cancer types: ovarian/non-ovarian	1.16 (0.47, 2.82)	0.75
Number of GPs seen before referral	1.28 (0.80, 2.05)	0.30

- Women who do not undergo pre-referral pelvic examination are 4.5 times more likely to be diagnosed with late stage cancer (95% Confidence interval 2.1 to 10.1)
- The only factor which affected whether pelvic examination was performed was the nature of the presenting symptom; gynaecological symptoms at presentation increased the chance of examination by 12.6 times (95% confidence interval 6.5 to 24.6)
- Performing pelvic examination was influenced by a complex interplay between the capability to perform pelvic examination, the opportunity to perform it and the motivation to carry out the examination. Clinicians were often influenced by their belief that patients preference was to not to be examined.

WHAT IMPACT COULD THE FINDINGS HAVE?

- The literature reviews identified potential areas of pre-hospital diagnostic delay in the diagnostic journey of women with gynaecological cancer
- Although clinical examination is an essential component of medical practice women are not always being examined: training programme directors, clinicians and medical educationalists need to open up the discussion on the acquisition, maintenance of intimate examination skills and effective incorporation into clinical practice.
- Improving patients' symptom knowledge and reducing patient embarrassment needs further exploration: ongoing focus in these areas is required as we try to improve gynaecological cancer survival

HOW WILL THE OUTCOMES BE DISSEMINATED?

Research is being disseminated by:

- publication (two papers to date and a further two in draft)
- conference presentation (four oral presentations and four poster presentations)
- engagement with National media (one newspaper article and one radio interview)

CONCLUSION

This study has highlighted the paucity of research exploring the reasons for patient and GP delays in the diagnostic journey of women diagnosed with a gynaecological cancer. However it has identified potential areas where intervention could lead to improved survival in women diagnosed with gynaecological cancer; efforts need to be focused on quicker diagnosis, supporting women with symptoms of gynaecological cancer to seek help at the earliest opportunity and supporting GPs to perform pre-referral pelvic examination when indicated along with timely, appropriate referral to secondary care. Further exploration of patients' health seeking behaviour is required.

RESEARCH TEAM & CONTACT

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Additional Information

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