

# Patient Factors that Influence Timely Presentation to UK Primary Care in Adults with Symptoms Suggestive of Cancer: A Scoping Review

## Authors

Emily Woodcraft<sup>1</sup> Sarah Bailey<sup>2</sup> Lucy Kirkland<sup>2</sup> Samuel W D Merriel<sup>2, 3</sup> Sarah Morgan-Trimmer<sup>2</sup> Gary Abel<sup>2</sup> Elizabeth Shephard<sup>2</sup>

1. University of Exeter Medical School
2. Faculty of Health and Life Sciences and Department of Health & Community Sciences, University of Exeter, UK
3. Centre for Primary Care & Health Services Research, University of Manchester, UK

## Abstract

**Objective:** This scoping review aims to understand the currently available evidence on patient-related factors affecting the timeliness of presentation to UK primary care with symptoms suggestive of cancer.

**Introduction:** Various patient factors, such as medical knowledge, or previous healthcare experiences, can influence whether a person with symptoms suggestive of cancer will present to primary care. Identifying these factors will aid in understanding the possible causes of delayed cancer diagnosis.

**Inclusion criteria:** Studies reporting patient-related factors impacting timely presentation to UK primary care with cancer symptoms will be included.

**Methods:** MEDLINE, Embase, PsycInfo, CINAHL, and ProQuest Dissertations & Theses Global (PQDT) will be searched for articles from June 2015 to December 2023. Only papers with free full text available in English will be included. Studies identified in the initial search results will be screened independently by two authors for eligibility against inclusion criteria. Selected studies will be imported to NVivo for analysis of the full text. Results will be presented under subheadings based on the themes identified in the analysis.

## Introduction

Cancer represents a significant portion of the global disease burden.(1) In 2021 there were approximately 135,643 deaths in England alone caused by cancer.(2,3) According to recent data from the International Cancer Benchmarking Partnership, cancer survival outcomes in the UK still lag behind those of other countries with similar healthcare systems.(4) The NHS Long Term Plan set out in 2019 states that increasing early-stage diagnosis (Stage 1 or 2) is a key target for improving UK cancer survival rates.(5)

Primary care services are essential for patients experiencing symptoms suggestive of cancer,(6) with General Practitioner (GP) referrals being the predominant route to diagnosis in the UK.(7) Emergency presentation, sometimes coming via primary care, is another route

to diagnosis which is associated with poorer outcomes in terms of stage at diagnosis and patient satisfaction.(8,9) GPs were responsible for over 2.8 million urgent referrals in the 2022/2023 financial year,(10) evidencing the crucial role primary care has in recognising the initial signs of cancer.

The model of pathways to treatment, seen in Figure 1,(11,12) illustrates the events and processes required for symptomatic presentation. Drawing from this model, factors influencing timely diagnosis can be grouped into 'system', 'healthcare provider (HCP)', 'disease' and 'patient' factors. System factors relate to the particular healthcare system available and may include public health campaigns, policy, access to diagnostic tests, and communication within and across healthcare services.(13) These are closely related to HCP factors, which describe the ways in which the healthcare service is delivered by practitioners. The HCP factors affecting cancer diagnosis include factors both non-modifiable, such as GP demographics, and modifiable, such as the HCP's clinical reasoning processes, 'gut-feeling' and involvement in continuing medical education.(14) Disease factors such as the specific symptoms experienced, the type of cancer, and comorbidities (pre-existing medical conditions, such as diabetes) can impact all aspects of the diagnostic process, even prior to first consultation.(12,15)

Finally, there are patient factors, which will be the focus of this review. The route to cancer diagnosis begins at a patient level, when a person first notices a change and goes through a self-evaluation process before considering presentation to healthcare services. These stages prior to presentation are summarised in the model of pathways to treatment (see again Figure 1) as the 'appraisal' and 'help-seeking' interval and are essential for timely diagnosis. The appraisal interval refers to the time taken between first noticing a symptom and recognising a need to seek help. The help-seeking interval is the time taken to present to primary care once a need to seek help has been recognised. Together these two intervals make up the overall 'patient interval'. Patient factors, including patient age, gender and socioeconomic status (SES), alongside less tangible concepts, such as worry about wasting GP time,(16) may cause symptomatic patients to delay primary care consultation. By considering these factors and exploring their effect on the diagnostic pathway, opportunities for intervention and further research can be identified with a view to improving the timely diagnosis of cancer.

A scoping review was chosen to explore, collate and summarise the presently available evidence on these aforementioned patient factors. No existing reviews on this topic were identified during preliminary searching of MEDLINE, the Cochrane Database of Systematic Reviews and JBI Evidence Synthesis.

This scoping review aims to explore the patient factors impacting cancer diagnosis in primary care. The focus will be the UK setting but will include evidence from multi-country studies that feature UK data. This will add to the current evidence base by exploring barriers and facilitators for cancer diagnosis, highlighting the patient perspective, and giving an up-to-date overview of patient factors relevant to UK practice.

## Review question

According to the presently available literature, what patient factors could be impacting timely presentation to UK primary care when a person develops symptoms suggestive of cancer?

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## Keywords

delay; general practice; primary healthcare; early cancer diagnosis

## Eligibility criteria

### Participants

Studies including adult participants aged over 18.

### Concept

Studies that discuss patient factors affecting timely presentation to primary care in the UK will be included. Timely presentation encompasses the interval from first noticing a symptom to presenting to primary care and includes re-presentation with the same health problem.

### Context

Studies relating to presentation to UK primary care will be included. Review papers encompassing populations from outside of the UK will only be included in cases where at least one of the reviewed studies is UK-based.

### Types of Sources

This scoping review will consider all primary research and review papers that fulfil the eligibility criteria. Theses with relevant research questions will also be considered. Case reports and interventional trials will be excluded.

## Methods

The proposed scoping review will be conducted in accordance with the JBI methodology for scoping reviews.(17)

### Search strategy

The search strategy will locate published studies and pertinent grey literature. An initial search of Google Scholar, MEDLINE, Embase and CINAHL was undertaken and terms from titles, abstracts and search strategies of relevant articles were used to develop a full search strategy for Ovid, CINAHL and PQDT (see Appendix 1). This initial search strategy was supplemented using search terms from two recent systematic reviews in the field.(18,19) The reference list of all included papers will be screened (with the aid of LitMaps online software) for any additional studies that fulfil the eligibility criteria.

Only studies published in English will be included for ease of analysis and because the question pertains to healthcare in the UK. Studies published since June 2015 will be included as this date coincides with the 2015 National Institute for Health and Care Excellence guidelines for suspected cancer referral (NG12) in primary care. MEDLINE, Embase and PsycInfo databases (using the Ovid interface), CINAHL, and PQDT will be searched to identify relevant literature.

## Study/Source of Evidence selection

Citations identified in the search will be collated and uploaded to Mendeley where they will be deduplicated. Titles and abstracts will be screened by two independent reviewers against the inclusion criteria. Sources that pass the initial screening will be retrieved in full and imported into Rayyan to aid full text screening. Detailed assessment of the full text of selected citations against the inclusion criteria will be performed by two independent reviewers. Any disagreements at each stage of the selection process will be resolved by discussion, with a third-party adjudicator available if needed to reach a final consensus. Reasons for exclusion at the full-text screening stage will be recorded and reported in the scoping review. Results of the search and the study inclusion process will be reported in full in the final scoping review and presented in a Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for scoping review (PRISMA-ScR) flow diagram.(20)

## Data Extraction

The full text from included papers will be extracted and input into NVivo 14 software for analysis.

## Data Analysis and Presentation

Patient-related factors will be coded and mapped using content analysis in NVivo 14. Themes and concepts that emerge will be developed and refined in an iterative process. These will be reported in tabular or graphic form. The key patient factors identified will be presented as subheadings in the discussion.

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## Conflicts of interest

There is no conflict of interest in this project.

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## Appendices

### Appendix I: Search strategy

# ▲	Searches	Results
1	∨ (primary care or primary healthcare or primary health care or general practice or general practitioner or family practice or family medicine).mp.	793578
2	∨ Primary Health Care/ or General Practice/ or Family Practice/	346595
3	∨ 1 or 2	793578
4	∨ ((symptom* adj5 cancer*) or possib* cancer* or (suspect* adj3 cancer*) or alarm symptom*).mp.	65766
5	∨ patient*.ti,ab. and (delay* or factor* or barrier* or obstacle* or difficult* or problem* or facilitat* or ease).mp.	7573991
6	∨ (apprais* or help-seeking or health-seeking or healthcare-seeking).mp.	263421
7	∨ (diagnos* or present*).ti,ab.	19200265
8	∨ 6 or 7	19384328
9	∨ 3 and 4 and 5 and 8	1363

MEDLINE initial search strategy input to Ovid (results from 6 Dec 2023).