Received: 15 August 2022 | Revised: 1 November 2022 | Accepted: 14 November 2022

DOI: 10.1002/jgf2.597

Journal of General and Family Medicine Open Access WILEY

PRELIMINARY REPORT

Cancer detection during the COVID-19 pandemic—Experiences in primary care and recommendations for the future

Marinde F. R. Siepman Van den Berg MSc[1] | Matthew Grant MBBS, MBioethics, PhD[1] | Nicole van Erp MD, MSc, PhD[1] | Carla H. van Gils PhD[1] | Jean Muris MD, PhD[2] | Daan Brandenbarg PhD[3] | Kristel M. van Asselt MD, PhD[4] | Niek J. de Wit MD, PhD, FRCPe[1] | Charles W. Helsper MD, MSc, PhD[1] | on behalf of theCOVID and Cancer-NL Consortium

[1]University Medical Centre Utrecht, Julius Centre for Health Sciences and Primary Care, Utrecht University, Utrecht, The Netherlands

[2]Department of General Practice, Maastricht University Care and Public Health Research Institute, Maastricht, The Netherlands

[3]Department of General Practice and Elderly Care Medicine, University Medical Centre Groningen, Groningen, The Netherlands

[4]Department of General Practice, Amsterdam UMC location University of Amsterdam, Amsterdam, The Netherlands

Correspondence
Matthew Grant, Universiteitsweg 100, Utrecht, The Netherlands.
Email: mgrant2@umcutrecht.nl

Funding information
ZonMw, Grant/Award Number: 10430022010014

Abstract

Background: To describe general practitioners (GPs) experiences with the impact COVID-19 on the duration of cancer detection.

Methods: Cross-sectional survey study among Dutch GPs.

Results: Fifty-eight GPs participated. During the first wave, COVID-19-related delays were experienced by 88%, 52%, and 67% of GPs in the contact-seeking, primary care, and referral phases, respectively. GPs reported delays due to telehealth consultations, longer waiting times and patient's concerns of COVID infections and overburdening GPs.

Conclusions: The majority of GPs experienced delays in cancer diagnostic processes during the beginning of the COVID pandemic, which was most prominent in the timeliness in which patients sought GP care.

KEYWORDS
cancer, cancer diagnosis, COVID, family medicine, primary care

1 | BACKGROUND AND OBJECTIVES

The COVID-19 pandemic has had widespread effects on daily life and the provision of health care. The manner in which we access health care and the systems of care provision were dramatically interrupted. Emerging evidence describes that many people avoided or postponed accessing health care during the start of the pandemic.[1,2] For conditions such as cancer, this can have drastic consequences, leading to later stage of diagnosis with worse prognosis, more invasive treatments, and poorer patient experience.[3]

During the first wave of COVID-19 in the Netherlands (March–June 2020), decreases in the number of referrals for suspected cancer and new diagnoses were observed.[4] In primary care-based health care systems, the majority of cancer patients (73%) are diagnosed after symptomatic presentation to and subsequent referral by a general practitioner (GP). This diagnostic pathway consists of a contact-seeking phase (first cancer-related symptom occurrence to GP presentation), a primary care phase (first GP presentation to corresponding referral), and a referral phase (GP referral to secondary care consultation).[5,6] It is unclear where and why delays

may have occurred that contributed to these reductions in cancer diagnoses.

The aim of this study was to describe GPs' experiences of the impact of the COVID-19 pandemic on the duration of various phases of the cancer diagnostic pathway, perceived reasons for delay and recommendations for the future. This will enable the identification of where delays may have occurred, reasons for these delays, and the manner in which these delays can be addressed to facilitate timely cancer diagnosis.

2 | METHODS

A cross-sectional retrospective survey study with closed and open questions was developed (Appendix S1) in accordance with European Organisation for Research and Treatment of Cancer (EORTC) guidelines.[7] Information was collected on the three previously mentioned phases—contact-seeking, primary care, and referral—of the diagnostic pathway. Dependent on the answers of participants, the questionnaire ranged from 10 to 13 items. It addressed: changes in the duration of each of the diagnostic phases during the first wave of COVID-19 (March–June 2020) as compared to pre-COVID-19 years using 5-point Likert scales, comparison between the impact of the first and second wave of COVID-19 (second wave: September 2020–June 2021), perceived reasons for changes in duration during the first wave (multiple choice) and recommendations for the future (open questions).

In June 2021, Dutch GPs were sent invitations to participate in the study through newsletters of academic GP and cancer networks in five regions of the Netherlands (Utrecht, Amsterdam, Groningen, Maastricht, and Deventer). The reported impact of COVID-19 on the duration of diagnostic phases and reasons for delay were analyzed using descriptive statistics, and proportions calculated based on the number of respondents who answered each item. Suggestions for prevention of delay in the future were analyzed by two authors (MSvdB, MG) using inductive qualitative analysis: data were analyzed using open, axial, and then selective coding.[8]

3 | RESULTS

The questionnaire was completed by 58 GPs who practiced throughout the Netherlands.

3.1 | Changes in duration

During the first wave of COVID-19 as compared to pre-COVID-19 years, delay was experienced by 88% of GPs in the contact-seeking phase, by 52% in the primary care phase, and by 67% in the referral phase (see Figure 1). In the second wave, 50% of GPs perceived the duration of the contact-seeking phase as normal (compared to 11% in the first wave), 67% (44% in first wave) for the primary care, and 47% (27% in first wave) for the referral phase.

3.2 | Reasons for delay

An overview of reasons for delay in cancer detection during the first wave of COVID-19 is provided in Figure 1. Main reasons for delay according to GPs were (1) in the contact-seeking phase: the patients' fears of overburdening the GP (81%) and catching the

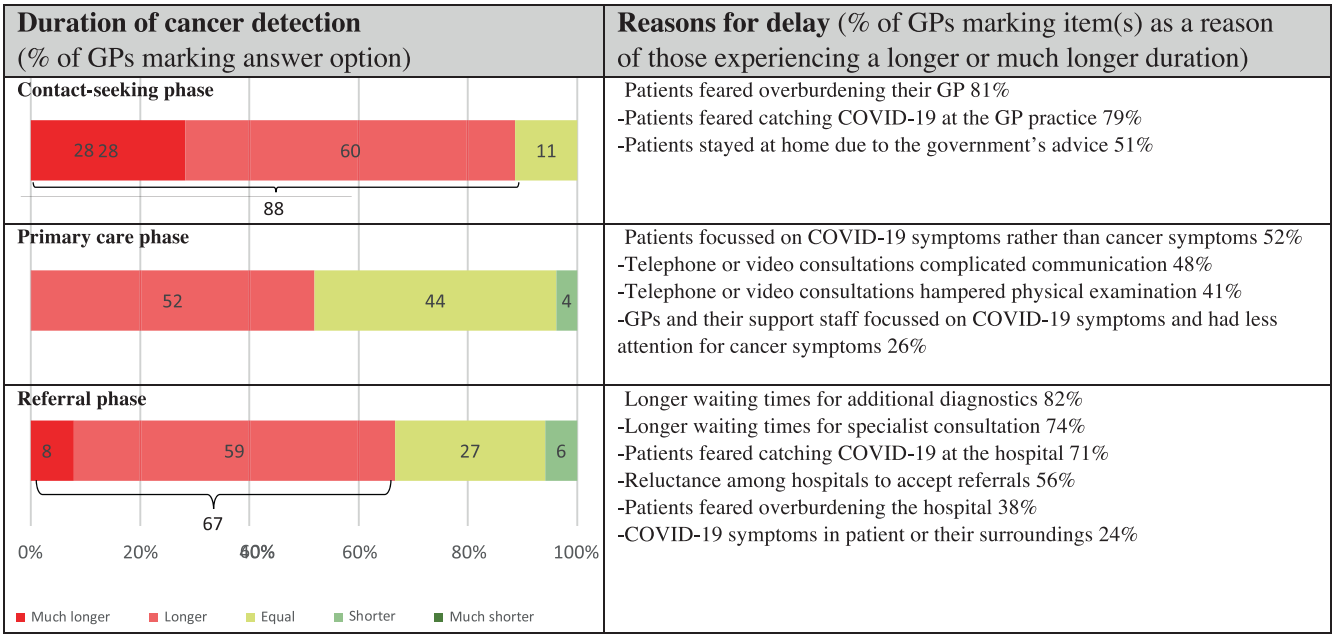

FIGURE 1 General practitioners (GPs) experiences of cancer diagnosis during the first wave of COVID-19

TABLE 1 Thematic analysis of general practitioners (GPs') suggestions for preventing delays in cancer detection during COVID-19

Phase	Education and training	Accessibility
Contact-seeking	• Targeted education on the urgency to report with alarm symptoms, for example, through government or professional association websites • Addressing patients' fears of overburdening the GP and catching the COVID-19 virus	• Improving telehealth accessibility for patients, for example, by increasing the use of video services and education for groups with low digital literacy • Providing COVID-19 self-tests free of charge
Primary care	• Training of GP assistants on recognition of cancer alarm symptoms during a pandemic	• Developing cancer recognition support tools and triage guidance adapted for use during a pandemic • Increasing the use telehealth for other health issues to preserve physical consultation possibilities for potential cancer patients
Referral		• Maintaining accessibility through tailored referral processes for example, rapid referral routes for suspected cancer • Facilitating direct discussion with specialist • Expediting additional diagnostics during waiting time for specialist
All phases	• Reducing the focus on COVID-19 • Increasing targeted capacity for potentially serious disease (increasing physical consultation possibilities, decreasing waiting lists)	

COVID-19 virus (79%); and in the referral phase: longer waiting times for additional diagnostics (82%) and consultation in secondary care (74%).

3.3 | Suggestions for improvement

The suggestions for improving cancer detection during COVID-19 were described through the themes of "education and training" and "accessibility" (detailed in Table 1). Main suggestions were patient education on the urgency of accessing care with alarm symptoms and cancer triage tools and rapid routes adopted for use during a pandemic.

4 | CONCLUSIONS

These results detail that the majority of GPs experienced delays in cancer diagnostic during the COVID pandemic, in particular how patients sought contact with primary care services. Patients' fears of overburdening the GP and catching the COVID-19 virus were identified as being major reasons for delay. The findings are in line with two recent English studies that detailed patients' reluctance to seek help,[9,10] along with a mismatch between patients' expectations and practice availability.

This study used a multimethod design to quantify the extent to which delays were experienced and understand reasons and suggestions for improvement. The sample of participants in this study is small but supported by qualitative data. To maximize the reach of the survey, it was disseminated through professional association newletters, and therefore, a response rate cannot be determined.

The reasons for delay described in this study are challenges that continue to be present 2 years after the start of the pandemic, although patients and health care professionals may be more accustomed to their influence. Timely diagnosis might be further facilitated through employing referral and triage guidelines which could promote and support the use of telehealth for low-risk symptoms, while maintaining physical consultations and diagnostic tests for those who most urgently need physical examination.[1] Most importantly, patients should be supported to seek health care services and health practitioners adaptive to their specific needs.

Future studies are needed to verify and detail the reported impact of COVID-19 on cancer detection—and to assess effectiveness of the suggested solutions. This should include research in the patient population, since GPs' experiences are subjective, especially relating to the health-seeking phase prior to GP involvement. Quantification of the extent of COVID-19-related delay in each phase is required to estimate potential impact on disease burden and the need for intervention. Deepening understanding of mechanisms leading to care avoidance and delay in referral and diagnosis would facilitate solutions.

ACKNOWLEDGMENTS

We thank all GPs participating in the survey study and Otto Maarsingh of Amsterdam UMC location Vrije Universiteit, Department of General Practice, Amsterdam, the Netherlands, for his role in the development of the survey. The authors acknowledge the members of the COVID and Cancer-NL Consortium: Prof. dr. S. Siesling Department of Research and Development, Netherlands Comprehensive Cancer Organisation (IKNL), Utrecht and Technical Medical Centre, Department of Health Technology and Services Research, Twente University, Enschede; Dr. J.C. van Hoeve, Department of Research and Development, Netherlands Comprehensive Cancer Organisation (IKNL), Utrecht; prof. dr. M.A.W. Merkx, Department of Research and Development, Netherlands Comprehensive Cancer Organisation (IKNL), Utrecht; Department of Oral and Maxillofacial

Surgery, Radboud University Nijmegen Medical Centre, Nijmegen; Prof. Dr. N.J. de Wit, Department of General Practice, Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht (UMCU), Utrecht University, Utrecht; Dr. C.W. Helsper, Department of General Practice, Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht (UMCU), Utrecht University, Utrecht; M.Sc. I. Dingemans, Dutch Federation of Cancer Patient Organisations (NFK), Utrecht; Prof. Dr. I.D. Nagtegaal, Department of Pathology, Radboud University Nijmegen Medical Centre, Nijmegen, on behalf of the Automated Pathology Archive (PALGA); Drs. M. van der Schaaf Department of Insight and Innovation, Dutch Hospital Data (DHD), Utrecht; Prof. Dr. C.H. van Gils Department of Clinical Epidemiology, Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht (UMCU), Utrecht University, Utrecht; Prof. Dr. H.C.P.M. van Weert, Department of General Practice, Amsterdam Public Health, Amsterdam UMC location AMC, Amsterdam; Prof. Dr. M. Verheij, Department of Radiation Oncology, Radboud University Medical Center, Nijmegen, on behalf of SONCOS (Dutch Multidisciplinary Oncology Foundation); all in The Netherlands.

FUNDING INFORMATION

This work was supported by the ZonMW [grant number 10430022010014]. The funding sources had no role in the study design; in the collection, analysis, and interpretation of data; in the writing of the report, and in the decision to submit the article for publication.

ETHICS APPROVAL

This research has been reviewed by the institutional review board of the UMC Utrecht (21-440/C) which found that it does not fall under the Medical Research Involving Human Subjects (WMO) Act of the Netherlands.

PATIENT CONSENT STATEMENT

A consent statement was included in the electronic survey, completed by all participants prior to beginning the survey.

CLINICAL TRIAL REGISTRATION

None.

CONFLICT OF INTEREST

The authors have stated explicitly that there are no conflicts of interest in connection with this article.

DATA AVAILABILITY STATEMENT

The deidentified participant data which were used for analysis will be shared on reasonable request to the corresponding author.

ORCID

Matthew Grant https://orcid.org/0000-0002-6878-9197

REFERENCES

1. Jones D, Neal RD, Duffy SRG, Scott SE, Whitaker KL, Brain K. Impact of the COVID-19 pandemic on the symptomatic diagnosis of cancer: the view from primary care. Lancet Oncol. 2020;21(6):748–50. https://doi.org/10.1016/S1470-2045(20)30242-4
2. Helsper CW, Campbell C, Emery J, Neal RD, Li L, Rubin G, et al. Cancer has not gone away: a primary care perspective to support a balanced approach for timely cancer diagnosis during COVID-19. Eur J Cancer Care. 2020;29(5):e13290. https://doi.org/10.1111/ecc.13290
3. Sud A, Torr B, Jones ME, Broggio J, Scott S, Loveday C, et al. Effect of delays in the 2-week-wait cancer referral pathway during the COVID-19 pandemic on cancer survival in the UK: a modelling study. Lancet Oncol. 2020;21(8):1035–44. https://doi.org/10.1016/S1470-2045(20)30392-2
4. Dinmohamed AG, Visser O, Verhoeven RHA, Louwman MWJ, van Nederveen F, Willems SM, et al. Fewer cancer diagnoses during the COVID-19 epidemic in The Netherlands. Lancet Oncol. 2020;21(6):750–1. https://doi.org/10.1016/S1470-2045(20)30265-5
5. Jensen H, Tørring ML, Olesen F, Overgaard J, Vedsted P. Cancer suspicion in general practice, urgent referral and time to diagnosis: a population-based GP survey and registry study. BMC Cancer. 2014;14(1):636. https://doi.org/10.1186/1471-2407-14-636
6. Weller D, Vedsted P, Rubin G, Walter FM, Emery J, Scott S, et al. The Aarhus statement: improving design and reporting of studies on early cancer diagnosis. Br J Cancer. 2012;106(7):1262–7. https://doi.org/10.1038/bjc.2012.68
7. Sprangers MAG, Cull A, Groenvold M, Bjordal K, Blazeby J, Aaronson NK. The European Organization for research and treatment of cancer approach to developing questionnaire modules: an update and overview. Qual Life Res. 1998;7:291–300.
8. Williams M, Moser T. The art of coding and thematic exploration in qualitative research. Int J Manage Rev. 2019;15(1):45–55.
9. Quinn-Scoggins HD, Cannings-John R, Moriarty Y, Whitelock V, Whitaker KL, Grozeva D, et al. Cancer symptom experience and help-seeking behaviour during the COVID-19 pandemic in the UK: a cross-sectional population survey. BMJ Open. 2021;11(9):e053095. https://doi.org/10.1136/bmjopen-2021-053095
10. Archer S, Calanzani N, Honey S, Johnson M, Neal R, Scott SE, et al. Impact of the COVID-19 pandemic on cancer assessment in primary care: a qualitative study of GP views. BJGP Open. 2021;5(4):BJGPO.2021.0056. https://doi.org/10.3399/BJGPO.2021.0056

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Siepman Van den Berg MFR, Grant M, van Erp N, van Gils CH, Muris J, Brandenbarg D, et al. COVID and Cancer-NL ConsortiumCancer detection during the COVID-19 pandemic—Experiences in primary care and recommendations for the future. J Gen Fam Med. 2022;00:1–4. https://doi.org/10.1002/jgf2.597