Commentary

The impact of COVID-19 on primary care: Insights from the National Health Service (NHS) and future recommendations

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Summary

COVID-19 has changed health systems and services. In this commentary, we outline the impact COVID-19 has had on the delivery of primary health care, and on primary care teams, and describe the NHS response. We highlight the challenges of managing long-COVID and identify areas of importance for primary care in a post-COVID context. We describe ongoing public health measures and list recommendations for primary care for COVID-19 and future unknown pandemics. We conclude with salient points on the future of primary care.

Keywords: COVID-19, NHS, primary care

It is over a year since the novel coronavirus (COVID-19), SARS-CoV-2 was borne, and fast led to being declared a global pandemic of extraordinary significance.[1] The World Health Organization (WHO) reports that as of 2 August 2021 there have been over 198 million confirmed COVID-19 cases, and over four million deaths attributed to COVID-19 internationally.[2]

Health systems across countries have rapidly adapted and innovated at scale to tackle and manage COVID-19: screening, test and trace policies, funding of high-quality research to develop and test repurposed treatments and new vaccines, and develop our understanding of those most at risk.[3-5] Conversely there are also countries whose health systems are struggling: In India's case – it shows how precarious the COVID-19 situation can be, and how systems need to remain vigilant to the potential ongoing impact of COVID-19.[6]

Primary care is usually the first point of care for people in many countries, with face-to-face consulting traditionally the platform that allows for the early assessment and management of most healthcare problems, and builds the clinician-patient relationship.[7] An important facet to optimising a country's management of a pandemic such as COVID-19 is the response of primary care. Where primary care is well developed and well-equipped, the system has capability to robustly support a local and national COVID-19 response.

Primary care has assisted in the identification, management and monitoring of COVID-19 cases, treatment, and has been critical in rapid implementation of the mass delivery of vaccination.[8] In this commentary, we focus on the impact of COVID-19 on primary care, in particular the English National Health

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Service (NHS), and suggest recommendations for primary care systems in the ongoing COVID-19 response and for future yet unknown pandemics.

COVID-19 Impact on Delivery of Primary Care

COVID-19 has impacted primary care significantly worldwide.[7] There has been widespread adoption of remote consulting, including video consultations, across developed primary care systems such as Canada, The Netherlands, and the United Kingdom (UK), to mitigate the transmission of COVID-19 in services and prioritise patient and staff safety.[7,8]

A rapid review of 14 national primary care responses to COVID-19 by Haldane *et al.*[9] (2020), found that all countries (including India, Sri Lanka, Ethiopia, and Nigeria) had specific guidance on control measures and minimising spread within primary care services. There was however only a handful of countries, including Ethiopia and Canada, who outlined guidance on patient access to medication; and 13 countries provided no guidance on the financing and legislation of primary care services: aspects which are key to the ongoing sustainability of high-quality primary care services, especially in a pandemic.[9]

In Ireland, Sri Lanka, and Ethiopia, the maintenance of urgent and essential primary care clinical services was stated, and remote consultations recommended to enhance this, and promote continuity of patient care.[9] In the UK, there was rapid adoption of remote primary care consulting by a multi-professional team ((general practitioner (GP), pharmacist, nurse, physiotherapist)) early in the pandemic although this was met with reduced numbers of GP appointments over the summer of 2020, in comparison to 2019.[10] Telephone consulting was suitable for most patients, with video consultations used less frequently. Interestingly, text messaging to patients' mobile phones increased three times during this period.[10]

The Impact on Primary Care Teams

The provision of personal protective equipment (PPE) for primary care staff was key to safe primary care services in COVID-19 and has been previously identified as a key primary care challenge to combatting pandemic influenza.[11] There were concerns over the availability of, and training to use, PPE for primary care healthcare workers in India, Italy, and Australia early in the pandemic.[12-14] The lack of adequate PPE stocks and suitable training for all primary care teams resulted in substantial COVID-19 risks to primary care staff: Frontline healthcare workers and clinicians have died from COVID-19 as a result, and significant pressure was placed on governments from ethnic minority groups who experienced an increased risk.[8]

There is little evidence on the impact of COVID-19 on the wellbeing of primary care teams and workers. A cross-sectional survey of healthcare workers including in primary care from Singapore found most healthcare workers were at risk of burnout: those who had borderline anxiety and depression scores, worked over eight-hour shifts, and were redeployed, were at higher risk of burnout.[15]

The NHS Primary Care Response

In England, primary care is largely delivered by the NHS – where almost all patients are registered with an NHS general practice. Care in this setting is delivered by a diverse primary care team including GPs, practice nurses, advanced clinical practitioners, clinical pharmacists, healthcare assistants, dentists, and physiotherapists.[8] In 2020 primary care networks (PCN) were established, centred around general practice registered patient lists, but working in partnership with community, mental health, social care, hospital, dental, pharmacy, and optometry care to provide holistic, integrated, and personalised patient care close to home.[16] There are 1,250 PCNs across England serving communities of roughly 30,000 to 50,000 patients.[16]

By April 2020, 90% of NHS primary care in England was implementing remote GP consulting (46% for nursing consultations) to mitigate COVID-19 contagion, although concerns arose around increasing clinical risk and clinical thresholds on when to see patients face-to-face.[10] There was great determination and goodwill by the primary care profession to navigate the complexity of the pandemic. Primary care pathways for COVID-19 were established. COVID-19 'hot sites' in some areas were rapidly launched where patients who may have COVID-19 symptoms could be effectively assessed by GPs in person with full PPE to support the NHS COVID-19 treatment response and reduce potential transmission.[8]

The existing technology infrastructure of primary care supported the remote working of clinicians, the distribution of medications to patients who may have moved to other areas of the country because of COVID-19, and allowed more joined up working across primary and specialist care. Electronic primary care healthcare records allowed for the coding of COVID-19 related presentations which supported the surveillance of COVID-19 across primary care, and for the implementation of COVID-19 risk stratification systems to support clinicians in identifying who may be at high risk.[17]

The response of primary care was supported by the urgent national funding of COVID-19 related primary care research to better understand the risk factors, clinical course, and treatment of COVID-19. For example, the PRINCIPLE trial is a multi-group, prospective, adaptive platform randomised control trial, recruiting patients through primary care to test multiple treatments for COVID-19 in the community.[5] Over 4000 participants have been recruited thus far and significant findings to date include the interim analyses that both azithromycin and doxycycline taken at home do not benefit patients aged over 50 in the early stages of COVID-19, and therefore both these trial treatment arms have ceased and these oral treatments not recommended.[5]

The National Institute for Health and Care Excellence (NICE) published the 'COVID-19 rapid guideline: Managing suspected or confirmed pneumonia in adults in the community' in 2020, now replaced by the April 2021 'managing COVID-19' clinical guideline, supporting primary care practice.[18]

PCNs have been instrumental in delivering COVID-19 vaccines to the public and healthcare staff and in England, which began during December 2020, and in supporting the national surveillance system of vaccine adverse events. The Joint Committee for Vaccinations and Immunisations agreed on cohorts of patients to vaccinate and enormous work on the ground in primary care allowed for the PCN designated sites to start vaccinating. On 1 August 2021, across the UK over 46 million people have received their first COVID-19 vaccine and over 38 million people have had their second.[19] Vaccine hesitancy has been reported among certain groups of people, and primary care can respond to this hesitancy by educating the public to reduce inequality in vaccine uptake.[20]

Long-COVID

With the emergence of 'long-covid' or 'post-covid syndrome' which can affect respiratory, cardiac, renal, liver, and endocrine systems, and is reported to more common in non-white and younger (<70 years) people; there has been the operationalisation of NHS long-COVID clinics across England for GPs to refer patients to personalise their recovery and rehabilitation from prolonged covid symptoms, in collaboration with primary and specialist care.[21] Primary care has a role in supporting families of those who died from COVID-19 and those with long-COVID.

It is important these services for people with persisting COVID-19 symptoms individualise management to ongoing patient symptoms to enhance recovery and return to normal functioning. In countries where long-COVID clinics are not yet formed, attention should be given to holistic integrated services for patients with persistent symptoms, with primary care having a key role in supporting joined-up care with specialist services.

Primary Care Post-COVID

Despite the way primary care is being delivered, there has been significant impact on traditional delivery of care, particularly on chronic disease management.[22] If primary care is derailed by the strain of a pandemic, the quality of patient care can deteriorate: an international survey of healthcare professionals from 47 countries found that greater impact had been on the management of people with diabetes, hypertension, and people with multi-morbidity.[23] These are the same chronic conditions that are associated with increased rates of hospitalisation for COVID-19 and mortality.[24] In Germany, the number of new cancer diagnoses per general practice decreased significantly during the early phase of the pandemic.[25] It is thus important that health services refocus on the management of chronic conditions and identification of cancer features where this mostly occurs in primary care.

The mental health impact of COVID-19 on patients, the public, and healthcare staff cannot be underestimated, especially in countries with current high daily COVID-19 cases such as India (over 200,000 cases in late April 2021), and the primary care response will be key to supporting mental illness and promoting good mental health post COVID-19.[26]

Public Health Response to COVID-19

Ongoing public health strategies are key in curtailing COVID-19 and on 1 April 2021, the UK Health Security Agency was launched, a new organisation responsible for preparing, preventing, and responding to public health threats and pandemics, and COVID-19 the central primary focus.[27] At present all adults and secondary school pupils are encouraged to undertake lateral flow tests, freely available, twice a week to identify cases early and prevent transmission.[28] Public health messages on hand washing, social distancing, and face coverings remain visible; restrictions on gatherings indoors and outdoors continue; and border control and travel restrictions with quarantine and testing on return attempt to control COVID-19 in the UK.

Recommendations for Primary Care During COVID-19 and Future Pandemics

1. All countries must ensure adequate financing and governance of primary care services to optimise their primary care response and sustain primary health care and this needs to be responsive and agile to manage rapid changes
2. Countries must continue to invest and develop primary care to sustain and grow services and as a key health system and cornerstone to achieve universal health coverage
3. Primary care must work alongside and be embedded into local grass-roots communities to best serve local needs and national public health initiatives and strategies (such as national vaccination programmes)
4. The wellbeing of primary care staff and teams should be prioritised in countries to facilitate effective delivery of primary health care including adequate provision for PPE and mental health support during and after pandemics
5. Remote consulting in primary care warrants ongoing research, audit, and evaluation to develop the evidence-base and improve remote primary health care, with a focus on reducing inequalities in digital access
6. A framework co-constructed with patients, clinicians, researchers, and policymakers should outline how developed primary care systems can support, share, and transfer knowledge to less well-developed primary care systems across countries
7. Countries and health systems should evaluate their COVID-19 primary care response and plan in preparation for future infection pandemics and health emergencies

8. Primary and community care research needs ongoing investment and infrastructure to enable effective, efficient, and cost-effective delivery of primary health care to large populations.

The Future of Primary care

The face of primary care in most countries has changed dramatically because of COVID-19. In some countries, COVID-19 cases are on the increase, and in others, widespread vaccination has supported the decline in cases, and primary care systems across the world are facing unique and different challenges in supporting the COVID-19 response. We are not yet clear what the post-COVID-19 primary care context will become; but what we are certain of, is that primary health care is an integral aspect of the ongoing response and recovery from COVID-19: primary care is closest to the patient.

Government health leaders and policymakers need to ensure that their primary health care response is monitored and evaluated. Future pandemics are likely and developing and optimising the primary care response now for COVID-19 and in preparation for future events will result in less morbidity and fewer deaths.

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