Evidence Brief: Telemedicine

Contents

Produced by the Knowledge Management team Evidence Briefs offer an overview of the published reports, research, and evidence on a workforce-related topic.

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Key publications – the big picture

Leading practices for the future of telemedicine
OECD, January 2025
Telemedicine has transformed how healthcare is delivered, emerging from a pandemic necessity to a cornerstone of modern health systems. This fast-track report explores how OECD countries have embedded telemedicine into everyday care and the implications on equitable access, sustainable funding, and data-driven decision-making.

Designing inclusive and trusted digital health services with people and communities
The King's Fund, January 2025
This shift towards technology can, and should, be positive; technology can drive change, facilitating better patient outcomes and experiences. However, NHS patients struggle with aspects of digital health care, such as having multiple apps with siloed records, fragmented digitalisation, a lack of digital options, and insufficient accessibility features. Current digitalisation and transformation approaches often fail to adequately involve users in service development, leading to unmet needs and expectations.

Which technologies offer the biggest opportunities to save time in the NHS?
The Health Foundation, April 2024
In the face of huge demand pressures, technology presents a significant opportunity to support workforce capacity in the NHS, as recognised in the 2024 Spring Budget and NHS Long Term Workforce Plan. Drawing on new Health Foundation research – including a UK-wide clinical staff survey and expert interviews – this analysis spotlights clinicians' views about which technologies might help the NHS boost productivity and release time for care, and sets out what steps will be important to realise these gains.

Support tool to strengthen telemedicine: resource for assessment, strategy development, and strengthening of telemedicine services
World Health Organization European Region, 2024
This resource presents a comprehensive framework designed to enhance and streamline telemedicine services within health-care systems. It addresses the critical need for accessible and effective telemedicine solutions, especially in the face of global health challenges and the evolving demands on health-care infrastructures. It outlines a multidimensional strategy that includes an assessment of the current health-care ecosystem, strategic visioning for telemedicine integration, organizational change management, development of telemedicine services, and continuous monitoring, evaluation, and optimization.

NHS Long Term Workforce Plan
NHS England, June 2023
The first comprehensive workforce plan for the NHS, putting staffing on a sustainable footing and improving patient care. It focuses on retaining existing talent and making the best use of new technology alongside the biggest recruitment drive in health service history.
See Reform – Digital and technological innovations

The Digital, Data and Technology Playbook
UK Government, March 2022
This document sets out key policies and guidance for how digital projects and programmes are assessed, procured and delivered.

Shaping the future of digital technology in health and social care
The King's Fund, April 2021
The potential of digital technology to transform the health and social care system has still not been realised, though the Covid-

19 pandemic has caused a rapid shift towards the remote delivery of care through online technologies.

Building our future digital workforce
Health Education England
Key to our work is establishing a workforce planning model for our health informatics workforce – those who work in data, digital, technology and knowledge - so we can understand both our current workforce, the demand for our future workforce and to develop a comprehensive plan to bridge the gaps.

The Topol Review
Health Education England, February 2019
The Topol Review outlined recommendations to ensure the NHS is the world leader in using digital technologies to benefit patients. It will involve implementing technologies such as genomics, digital medicine, artificial intelligence and robotics at a faster pace and on a greater scale than anywhere else in the world.

Digitally-enabled primary and outpatient care will go mainstream across the NHS
NHS Long Term Plan, January 2019
Digital technology will provide convenient ways for patients to access advice and care. For patients and staff the starting point is interoperability of data and systems, as set out in Chapter Five. Then, building on progress already made on digitising appointments and prescriptions, a digital NHS 'front door' through the NHS App will provide advice, check symptoms and connect people with healthcare professionals – including through telephone and video consultations.

Case Studies

Digital innovation and organizational changes in the healthcare sector: Multiple case studies of telemedicine project implementation
Technovation 120, 2023
The goal of the paper is to shed light on the characterization of leverages and barriers, as well as the related managerial actions for change implemented in a context whereby the diffusion of telemedicine remains limited.

Case study: Using telemedicine to help to improve access to healthcare for prisoners in Surrey
NIHR, 2022
Telemedicine has successfully been used within prisons in the USA, but so far it has not been successfully implemented in the English prison system in the small number of pilots that have taken place. There is no current evidence of why it was not successful. This is where research can help fill in the gaps.

Improving flows of health information to care homes
NHS England – Digital, 2021
As part of the NHS England 'Personalised Health and Care 2020' programme, one of the aims was to "give care professionals and carers access to all the data, information and knowledge they need". This includes giving care providers direct access to selected patient data, provided that consent is given, through NHS IT systems and infrastructure.

Case study: Harnessing technology for quicker stroke care
Health Innovation Oxford & Thames Valley, 2021
New artificial intelligence (AI)-driven imaging support software which has the potential to deliver huge benefits to hundreds of stroke patients each year and significant cost savings to the NHS

has been implemented at the Royal Berkshire NHS Foundation Trust (RBH).

The Star for workforce redesign

More resources and tools are available in the Star

Statistics

You can find relevant statistics on the Health and Care Statistics Landscape

National Data Programme

Workforce, Training and Education staff can look at the National Data Warehouse (NDL) SharePoint site to find out more about datasets and Tableau products.

Published Peer Reviewed Research

Educating the workforce and role development

Telehealth Training and Education for Allied Health Professionals: A Scoping Review
Telemedicine Reports 6(1), 2025
Background: With the growing adoption of telehealth in allied health disciplines, establishing clear training and education standards is crucial. This review aims to map the current training and education that has been delivered to support development of telehealth competencies in allied health professionals. This scoping review extends our previous review with an updated search.

Stakeholder attitudes and perceptions of the new simulated consultation assessment for GP licencing in the United Kingdom: a cross-sectional mixed methods survey
Education for Primary Care, 2025
Background: The Simulated Consultation Assessment (SCA) replaced the Recorded Consultation Assessment (RCA) as the summative clinical component of the Membership of the Royal College of General Practitioners (MRCGP) examination for the United Kingdom (UK) general practice licencing assessment in 2023. The SCA consists of 12 online consultations with trained role players, with candidates based in their own surgery. This study aimed to gather views of stakeholders on the new assessment before its introduction.

Experience, knowledge, practices and attitudes of emergency department medical staff regarding teledermatology
Emergency Medicine Australasia : EMA 37(1), 2-25
OBJECTIVES: The present study aimed to assess self-reported experience, knowledge, practices and attitudes of ED medical

staff regarding teledermatology., METHODS: Online questionnaire of ED medical staff at Prince of Wales Hospital (Sydney, Australia).

[Telehealth competencies for allied health professionals: A scoping review](#)
Journal of Telemedicine and Telecare, 2023
INTRODUCTION: Telehealth has become one of the main methods of delivering allied health professional services world-wide, yet many professionals do not have sufficient training to deliver high-quality telehealth services. This review aims to identify what competencies allied health professionals require for effective telehealth service delivery.

[Do UK prosthetists and orthotists have adequate guidelines and training to provide telehealth patient consultations?](#)
Prosthetics and Orthotics International 47, 2023
BACKGROUND The COVID-19 pandemic caused a rapid transition to remote consultations and services may have been unprepared for telehealth implementation. The UK National Health Service (NHS) was undergoing digital transformation prior to the pandemic, but the transformation was slow. Healthcare systems needed to develop policies and training to move to a new model of care delivery, however, some of these requirements may have been bypassed during the pandemic. AIM The aim of this study was to explore the UK prosthetic and orthotic services' organisational telehealth readiness, focusing on guideline implementation and staff training, through the perspectives of NHS prosthetists and orthotists.

[Evaluating digital competencies for allied health professionals in the United Kingdom](#)
Digital Health 9, 2023
The Covid-19 pandemic accelerated the move to virtual and remote consultations in clinical practice with digital technologies widely implemented. eHealth interventions and use of applications in a variety of conditions means that patients and their families, as well as healthcare professionals, can access and interpret data in real-time, as well as providing trends in various clinical parameters including blood pressure for instance. Despite the aim of digital transformation in the National Health Service in the United Kingdom, this has not been fully realised and there is no consensus on the skills and competencies required for allied health professionals (AHPs). This qualitative study undertook two focus groups with twelve AHPs to evaluate the AHP Digital Competency Framework in the UK.

[TACTICS VR Stroke Telehealth Virtual Reality Training for Health Care Professionals Involved in Stroke Management at Telestroke Spoke Hospitals: Module Design and Implementation Study](#)
JMIR Serious Games 11, 2023
BACKGROUND: Stroke management in rural areas is more variable and there is less access to reperfusion therapies, when compared with metropolitan areas. Delays in treatment contribute to worse patient outcomes. To improve stroke management in rural areas, health districts are implementing telestroke networks. The New South Wales Telestroke Service provides neurologist-led telehealth to 23 rural spoke hospitals aiming to improve treatment delivery and patient outcomes. The training of clinical staff was identified as a critical aspect for the successful implementation of this service. Virtual reality (VR) training has not previously been used in this context.

[Workload effects of online consultation implementation from a Job-Characteristics Model perspective: a qualitative study](#)
BJGP Open 7(1), 2023
Background: Online consultation (OC) was previously promoted by the NHS to solve primary care workload challenges. Its implementation was sped up during the COVID-19 pandemic.

Workload effects are widely debated. Using a job design perspective may enhance understandings of workload effect. Aim(s): To qualitatively interrogate the workload experiences of primary care staff involved in OC implementation, using the Job Characteristics Model (JCM) to enable the following: a clearer understanding of the primary care staff psychological experiences; and recommendations informing the design of digital implementations and continued use.

Students' and tutors' experiences of remote 'student–patient' consultations
Medical Teacher 45(9), 2023
Greater clinical risk was perceived in remote consulting, which had potential to negatively impact students' psychological safety. Frequent debriefs could ameliorate this risk and positively impact student–doctor relationships. Student autonomy and independence increased due to greater participation and responsibility. Pre-selection of patients could be helpful but had potential to expose students to lower complexity patients.

Teleconsultation in health and social care professions education: A systematic review
The Clinical Teacher 19(5), 2023
Teleconsultation education is a legitimate way to expose students to telehealth. High satisfaction rates, increased knowledge and confidence in use indicate the positive impact this learning has on students. Nevertheless, further high-quality research and guidance for educators are warranted.

Revisiting the nursing metaparadigm: Acknowledging technology as foundational to progressing nursing knowledge
Nursing Inquiry 30(1), 2023
Nurses may become active agents in novel developments rather than passive adopters, continuing our legacy of patient advocacy through new knowledge generation. Emerging and continuing nurse leadership has set the stage for the next era of nurse-led innovation and technology development, which provides an opportunity to embed technology as a core aspect of the nursing metaparadigm.

Social and Emotional Development in a Telehealth-Based Ambulatory Care Skills Course
American Journal of Pharmaceutical Education 86(8), 2022
These findings suggest value in using role modelling, telehealth-based simulations, and teaching assistant feedback on pharmacy students' social and emotional development.

Do UK Allied Health Professionals (AHPs) have sufficient guidelines and training to provide telehealth patient consultations?
BMC Human Resources for Health 20(1), 2022
UK NHS AHP services are not fully equipped with clear and comprehensive guidelines and the skills to deliver telehealth. Vulnerable people are excluded from current guidelines, which may widen health inequalities and hinder the success of the NHS digital transformation. The absence of national guidelines highlights the need for uniform AHP telehealth guidelines.

Digital health must be better integrated into medical education
BMJ 376, 2022
Digital health must be better integrated into our medical education and developed throughout the curriculum. As digital natives, medical students should be consulted on the design of digital health education, and we should push for better training within our medical schools. We must be equipped with the technological, legal, and ethical skills to prepare for a digital future and to ultimately provide the best care for our patients.

Nurse Practitioner Student Perceptions of a Multimodal Telemedicine Clinical Course Abstract only*
Nurse Education 46(5), 2021
Nursing educators should integrate multimodal telemedicine experiences into curricula, addressing multiple learning phases through experientially designed simulation trainings.

Exploration of implementation, financial and technical considerations within allied health professional (AHP) telehealth consultation guidance: a scoping review including UK AHP professional bodies' guidance
BMJ Open 11(12), 2021
This study identified gaps in current guidelines, which showed similarities as well as discrepancies with the guidance for non-AHP healthcare professionals and revealed that the existing guidelines do not adequately support AHPs delivering telehealth consultations.

What Matters to Us: Impact of Telemedicine During the Pandemic in the Care of Patients With Sarcoma Across Scotland.
JCO Global Oncology 7, 2021
Telemedicine in sarcoma care is favorable from both clinician and patient perspectives. Utilization of telemedicine for patients with rare cancers such as sarcomas is an innovative approach to the delivery of care, especially considering the time and financial pressures on patients who often live a distance away from specialist centers. Patients and providers are keen to move toward a more flexible, mixed system of care.

Virtual Interactive Surgical Skills Classroom: A Parallel-group, Non-inferiority, Adjudicator-blinded, Randomised Controlled Trial (VIRTUAL)
Journal of Surgical Education 79(3), 2022

VCT provides greater accessibility and resource efficiency compared to FFT, with similar educational benefit. VCT has the potential to improve global availability and accessibility of surgical skills training.

A UK-wide survey looking at teaching and trainee confidence in teledermatology: a vital gap in a COVID-19-induced era of rapid digital transformation?
Clinical Experimental Dermatology 45(7), 2020
Our survey found that only 15% of respondents felt slightly confident in their ability to deal with teledermatology referrals and almost all (96%) felt more teaching was needed.

Integration of Technology in Medical Education on Primary Care During the COVID-19 Pandemic: Students' Viewpoint
Journal of Medical Internet Research 6(2), 2020
Even in the absence of face-to-face teaching and clinical placements, students have been able to hone their medical knowledge and soft skills through these virtual, simulated consultations. They have been exposed to a new consultation style while in a safe and collaborative learning space.

Perceptions of medical students towards online teaching during the COVID-19 pandemic: a national cross-sectional survey of 2721 UK medical students
BMJ Open 10(11), 2020
Online teaching has enabled the continuation of medical education during these unprecedented times. Moving forward from this pandemic, in order to maximise the benefits of both face-to-face and online teaching and to improve the efficacy of medical education in the future, we suggest medical schools resort to teaching formats such as team-based/problem-based learning. This uses online teaching platforms allowing students to digest information in their own time but also allows students to then constructively discuss this material with peers. It has also

been shown to be effective in terms of achieving learning outcomes.

Addressing the Covid-19 Burden on Medical Education and Training: The Role of Telemedicine and Tele-Education During and Beyond the Pandemic
Frontiers in Public Health 8, 2020
During the transition from conventional in-person or classroom teaching to tele-delivery of educational programs, medical students have to navigate various social, economic and cultural factors which interfere with their personal and academic lives. This is especially relevant for those from vulnerable, underprivileged or minority backgrounds.

Telehealth in Mental Health Nursing Education: Health Care Simulation With Remote Presence Technology Abstract only*
Journal of Psychosocial Nursing and Mental Health Nursing 57(7), 2019
These results illustrate the feasibility of using a remote presence robot in an educational simulation environment. Remote presence in clinical simulations can contribute to workforce preparation to apply telehealth-enabled communication in PMHN settings.

Diversity, inclusion and ethics

Telehealth and people with disabilities in the United Kingdom: a scoping review
Frontiers in Public Health 13, 2025
Introduction: Telehealth, also sometimes known as telemedicine, is the use of communication technologies to deliver healthcare remotely, has become increasingly vital, particularly since the COVID-19 pandemic. While telehealth can improve healthcare access, it may exacerbate inequities for people with disabilities. This scoping review explores the needs, experiences, and difficulties people with disabilities face when accessing telehealth services in the United Kingdom's (UK) National Health Service (NHS).

Telemedicine use in rural areas of the United Kingdom to improve access to healthcare facilities: A review of current evidence
Informatics and Health 2(1), March 2025
Background: Rural populations in the UK face healthcare inequities despite the NHS's aim of providing universal healthcare. These disparities include restricted access, transportation challenges, and healthcare workforce shortages, resulting in delayed care and poorer health outcomes. This research aims to investigate the use of telemedicine in rural areas of the United Kingdom to improve access to healthcare facilities.

Telehealth and people with disabilities in the United Kingdom: a scoping review
Frontiers in Public Health 13, 2025
Introduction: Telehealth, also sometimes known as telemedicine, is the use of communication technologies to deliver healthcare remotely, has become increasingly vital, particularly since the COVID-19 pandemic. While telehealth can improve healthcare access, it may exacerbate inequities for people with disabilities. This scoping review explores the needs, experiences, and difficulties people with disabilities face when accessing telehealth services in the United Kingdom's (UK) National Health Service (NHS).

Ethical acceptability of telemedicine: Nursing home resident's perspective on telemedical consultations
Digital Health, 2024
Objective: The use of telemedicine in health care has recently expanded, and with it the need to evaluate its use from an ethical

perspective. Studies investigating the ethical acceptability of telemedical consultations (TC) in nursing homes are lacking, and in particular, the perspectives and experiences of older adults with TC are underrepresented. The objective of this study is to identify ethically relevant parameters in the acute care of nursing home residents using TC and to derive recommendations.

Experiences and Views of Older Adults of South Asian, Black African, and Caribbean Backgrounds About the Digitalization of Primary Care Services Since the COVID-19 Pandemic: Qualitative Focus Group Study
JMIR Formative Research 8, 2024
BACKGROUND: The COVID-19 pandemic from 2020 to 2022 prompted governments worldwide to enforce lockdowns and social restrictions, alongside the rapid adoption of digital health and care services. However, there are concerns about the potential exclusion of older adults, who face barriers to digital inclusion, such as age, socioeconomic status, literacy level, and ethnicity.

Patient Characteristics Associated With Disparities in Engagement With and Experience of COVID-19 Remote Home Monitoring Services: A Mixed-Methods Evaluation
Health Expectations : An International Journal of Public Participation in Health Care and Health Policy 27(4), 2024
INTRODUCTION: The adoption of remote healthcare methods has been accelerated by the COVID-19 pandemic, but evidence suggests that some patients need additional support to engage remotely, potentially increasing health disparities if needs are not met. This study of COVID-19 remote home monitoring services across England explores experiences of and engagement with the service across different patient groups.

A multicentre cross-sectional observational study to determine the effect of living with frailty on digital exclusion from video consultations: (Access-VIGIL) Abstract only*
Journal of the American Medical Directors Association 25(4), 2024
OBJECTIVES: Many older people regularly access digital services, but many others are totally excluded. Age alone may not explain these discrepancies. As health care services offer more video consultations, we aimed to determine if living with frailty is a significant risk factor for digital exclusion in accessing video consultations, and if this changes if a person has a support network to help with access.

eHealth Literacy and the Use of NHS 111 Online Urgent Care Service in England: Cross-Sectional Survey
Journal of Medical Internet Research 26, 2024
BACKGROUND: Many health care systems have used digital technologies to support care delivery, a trend amplified by the COVID-19 pandemic. "Digital first" may exacerbate health inequalities due to variations in eHealth literacy. The relationship between eHealth literacy and web-based urgent care service use is unknown.

Was access to video consultations with GPs in England equitable during the early COVID-19 lockdown period?
British Journal of General Practice 73, 2023
Background The COVID-19 pandemic compelled clinicians to change access to primary health care as faceto- face consultations were a risk to patients and staff. Video consultations (VCs) were frequently substituted as a proxy for a clinical examination. Aim We were interested in finding out whether people from lower socioeconomic backgrounds in England had equitable video access to their GPs during the initial COVID-19 lockdown period.

Disability and Social Inclusion: Lessons From the Pandemic
Social Inclusion 11(1), 2023
The coronavirus pandemic necessitated rapid, radical changes to global systems, structures, and organisations across all areas of life, including education, healthcare, and social services. These changes were something of a double-edged sword. On the one hand, widespread adoption of the kinds of remote-working technologies long advocated for by disabled people opened up possibilities for inclusion. On the other, some people's inability to access such technologies, together with increased social isolation, exacerbated forms of exclusion.

Promoting racial equity in digital health: applying a cross-disciplinary equity framework
Npj Digital Medicine 6(3), 2023
Golden et al. evaluate structural racism in their recent paper focused on reproductive health. They recommend a framework to Remove, Repair, Restructure, and Remediate. We propose applying the framework to three areas within digital medicine: artificial intelligence (AI) applications, wearable devices, and telehealth. With this approach, we can continue to work towards an equitable future for digital medicine.

What is the efficacy and effectiveness of telemedicine intervention for Deaf signing populations in comparison to face-to-face interventions? A Systematic Review
BMC Health Services Research 23(678), 2022
After the screening of full text articles, only two met the inclusion criteria for the review (both concerned telemedicine and mental health interventions). However, they do not fully answer the review's research question. Therefore, the evidence gaps, including the effectiveness of the intervention for Deaf people, such as whether psychological therapy using telemedicine made a difference or not when compared to face-to-face therapy.

Ethics, Guidelines, Standards, and Policy: Telemedicine, COVID-19, and Broadening the Ethical Scope
Cambridge Quarterly of Healthcare Ethics 31(1), 2022
The coronavirus crisis is causing considerable disruption and anguish. However, the COVID-19 pandemic and consequent explosion of telehealth services also provide an unparalleled opportunity to consider ethical, legal, and social issues (ELSI) beyond immediate needs.

Locked out: Digitally excluded people's experiences of remote GP appointments
Healthwatch, June 2021
The move to more digitally-led healthcare has worked well for some but excluded others over the past year. Our report explores how people have been excluded and what needs to happen to get the care they need.

Which ethical values underpin England's National Health Service reset of paediatric and maternity services following COVID-19: a rapid review
BMJ open 11(6), 2021
Embedded in the theme of staff and patient safety is embracing new ways of working, such as the rapid roll out of telemedicine. On assessment, many sources did not explicitly consider how ethical principles might be applied or balanced against one another. Weaknesses in the policy sources included a lack of public and user involvement and the absence of monitoring and evaluation criteria.

The need for feminist intersectionality in digital health
The Lancet Digital Health 3(8), 2021
In this Viewpoint, we show that because of lower access and exclusion from app design, gender imbalance in digital health leadership, and harmful gender stereotypes, digital health is disadvantaging women—especially women with racial or ethnic

minority backgrounds. Tackling digital health's gender inequities is more crucial than ever.

British South Asian Patients' Perspectives on the Relevance and Acceptability of Mobile Health Text Messaging to Support Medication Adherence for Type 2 Diabetes: Qualitative Study
JMIR mHealth and uHealth 8(4), 2020
There is increasing recognition that health interventions that are culturally adapted to the needs of specific groups are more likely to be relevant and acceptable, but evidence to support the effectiveness of adapted interventions is limited and inconclusive.

Implementation and effectiveness

Abortion care

Patient and health professional attitudes towards the use of telemedicine for abortion care in Britain: Findings from the SACHA study
Digital Health 10, 2024
Introduction: Use of telemedicine in abortion care is safe and effective. Patient satisfaction with telemedically supported abortion is high, but as use expands in Britain, little is known about patients' or health professionals' views on how it is best used. We sought the views of both groups on telemedicine's role in abortion provision and how its use might be optimised.

Attendance

Attendance at remote versus in-person outpatient appointments in an NHS Trust
Journal of Telemedicine and Telecare, 2023
Introduction: With the growing use of remote appointments within the National Health Service, there is a need to understand

potential barriers of access to care for some patients. In this observational study, we examined missed appointments rates, comparing remote and in-person appointments among different patient groups.

Barriers

Barriers to Video Call-Based Telehealth in Allied Health Professions and Nursing: Scoping Review and Mapping Process
Journal of Medical Internet Research 25, 2023
BACKGROUND: Telehealth interventions have become increasingly important in health care provision, particularly during the COVID-19 pandemic. Video calls have emerged as a popular and effective method for delivering telehealth services; however, barriers limit the adoption among allied health professionals and nurses., OBJECTIVE: This review aimed to identify and map the perceived barriers to the use of video call-based telehealth interventions among allied health professionals and nurses.

Cardiovascular disease and hypertension

Integrating telemedicine in routine heart failure management: Experiences of healthcare professionals – A qualitative study
Digital Health, 2024
Objective: To describe the experiences of healthcare professionals with integrating telemedicine in routine heart failure (HF) care.

Exploring the patient experience of remote hypertension management in Scotland during COVID-19: a qualitative study
BMJ Open 13(12), 2023
Objectives The aim of this study was to understand how patients experienced hypertension management, with or without blood pressure (BP) telemonitoring, during the COVID-19 pandemic. Design, methods, participants and setting This qualitative study

conducted between April and November 2022 consisted of 43 semistructured telephone interviews (23 men and 20 women) from 6 primary care practices in one area of Scotland. Results From the views of 25 participants with experience of using the Connect Me telemonitoring service and 18 participants without such experience, 5 themes were developed.

Nurse-led telehealth intervention effectiveness on reducing hypertension: a systematic review
BMC Nursing 22(19), 2023
Nurse-led interventions delivered remotely have a positive effect in lowering the blood pressure of patients with hypertension. Further research is required to support strategies that will deliver the best continuous, quality, and cost-effective nursing care.

The evolution of digital health technologies in cardiovascular disease research
Npj Digital Medicine 6(1), 2023
With increasing amounts of novel technologies becoming available and more patients taking part in remote health care monitoring, further evaluation and research into digital technologies, including their long-term effectiveness, is needed. Furthermore, emerging technologies, which are evaluated and/or validated should be considered for implementation into clinical practice as treatment and prevention modalities for CVD.

Patient and caregiver experiences with a telemedicine intensive care unit recovery clinic
Heart & Lung 58, 2022
The study results enhance the understanding of patient and caregiver experiences with a telemedicine ICU-RC. Participants' narratives helped to formulate recommendations to improve telemedicine ICU-RC delivery and content. Acceptability of this intervention indicates the potential for wider implementation of telemedicine ICU-RCs to reach more ICU survivors.

Telemedicine: Benefits for Cardiovascular Patients in the COVID-19 Era
Frontiers in Cardiovascular Medicine, 2022
There is still room to improve the remote identification and investigation of heart disease, provide an accurate diagnosis and therapeutic regimen, and update regulations and guidelines to the new realities of technological progress in the field.

Efficacy of telemedicine for the management of cardiovascular disease: a systematic review and meta-analysis
The Lancet Digital Health 4(9), 2022
Telemedicine including both remote disease monitoring and consultation might reduce short-term cardiovascular-related hospitalisation and mortality risk among patients with heart failure.

Pros and cons of telemedicine: implications in cardiology and cardiovascular medicine
Future Cardiology 18(11), 2022
We gathered that telemedicine has been attributed a considerable attention in managing cardiac/cardiovascular conditions; nevertheless, further studies with solid designs are still needed to confirm its validity/utility within these specialties.

Implementation of a mHealth solution to remotely monitor patients on a cardiac surgical waiting list: service evaluation
JAMIA Open 4(3), 2021
The emergence of COVID-19 resulted in postponement of nonemergent surgical procedures for cardiac patients in London. mHealth represented a potentially viable mechanism for highlighting deteriorating patients on the lengthened cardiac surgical waiting lists.

Cost effectiveness

Patient cost analysis of a community-based teledermatology service versus conventional outpatient appointments in East Kent: a retrospective study through a societal lens to reduce health inequalities
BMC Health Services Research 24(1632), 2024
Background: The UK's National Health Service (NHS) is grappling with rising demand and limited dermatologists, leading to longer waiting times. This is particularly concerning for conditions like malignant melanoma, where early diagnosis is crucial. Teledermatology is being introduced to address these issues, but its impact on patients' monetary and time costs, especially in deprived areas, is under-researched. This study investigates the impact of a community-based teledermatology model in East Kent, a coastal region with high cross-regional health inequalities.

Economic Evaluations of Digital Health Interventions for Patients With Heart Failure: Systematic Review
Journal of Medical Internet Research 26, 2024
BACKGROUND: Digital health interventions (DHIs) have shown promising results in enhancing the management of heart failure (HF). Although health care interventions are increasingly being delivered digitally, with growing evidence on the potential cost-effectiveness of adopting them, there has been little effort to collate and synthesize the findings., OBJECTIVE: This study's objective was to systematically review the economic evaluations that assess the adoption of DHIs in the management and treatment of HF.

Decision making

How clinicians make decisions for patient management plans in telehealth
Journal of Advanced Nursing 80(9), 2024
This systematic integrative literature review explores how clinicians make decisions for patient management plans in telehealth.

Covid-19

Delivery of Remote Pulmonary Rehabilitation: COVID-19 Service Evaluation in England
International Journal of Chronic Obstructive Pulmonary Disease 20, 2025
Background: Recent evidence suggests that remote pulmonary rehabilitation (PR) meeting international criteria may be as effective as traditional in-person PR. During social distancing associated with COVID-19, in-person PR services were suspended in England. We assessed the use of remote PR services during COVID-19 social distancing.

Musculoskeletal physiotherapists' experiences of using remote consultations during the COVID-19 pandemic: A qualitative study
Musculoskeletal Science & Practice 72, 2024
BACKGROUND: The coronavirus (COVID-19) pandemic resulted in the rapid implementation of remote consultations to maintain musculoskeletal physiotherapy services. However, little is known about UK musculoskeletal physiotherapists' experiences of providing services during the COVID-19 pandemic., OBJECTIVES: To explore musculoskeletal physiotherapists' experiences of using remote consultations in one area of England during the COVID-19 pandemic.

Changes in attitudes towards telemedicine in acute burn care following the Covid-19 pandemic Abstract only*
Burns: Journal of the International Society for Burn Injuries 50(7), 2024
BACKGROUND: Telemedical referrals after burn injury had been shown to be advantageous over telephone referrals for multiple reasons, however there were several key barriers towards complete implementation. The Covid-19 pandemic facilitated the adoption of telemedicine to ensure the safety of both clinicians and patients. Due to the circumstances, it was unclear whether the pre-pandemic barriers still existed despite the complete implementation of telemedicine.

Exploring the delivery of remote physiotherapy during the COVID-19 pandemic: UK wide service evaluation
Physiotherapy Theory and Practice 40(10), 2024
INTRODUCTION: During the Coronavirus (Covid-19) pandemic, physiotherapists changed rapidly to working remotely. Research demonstrates the benefits of remote physiotherapy, but little is known about its implementation in practice., PURPOSE: Explore the take-up and delivery of remote physiotherapy during the pandemic in the United Kingdom.

Transitioning to a virtual post-intensive care rehabilitation service in response to the COVID-19 pandemic: results of multidisciplinary focus-groups
Frontiers in Medicine 11, 2024
Background: Telehealth has vastly expanded since the SARS-CoV-2 (COVID-19) pandemic and has been widely implemented as an efficient, cost-effective and accepted means of health care delivery, including rehabilitation. Although telerehabilitation is recommended across national guidelines, there is a lack of practical guidance to support clinicians with virtual adaptations.

Satisfaction with remote consultations in primary care during COVID-19: a population survey of UK adults
The British Journal of General Practice: The Journal of the Royal College of General Practitioners 74(739), 2024
BACKGROUND: Mode of access to primary care changed during the COVID-19 pandemic; remote consultations became more widespread. With remote consultations likely to continue in UK primary care, it is important to understand people's perceptions of remote consultations and identify potential resulting inequalities.

Telephone consulting for 'Personalised Care and Support Planning' with people with long-term conditions: a qualitative study of healthcare professionals' experiences during COVID-19 restrictions and beyond
BMC Primary Care 25(1), 2024
BACKGROUND: Personalised Care and Support Planning (PCSP) replaces conventional annual reviews for people with long-term conditions. It is designed to help healthcare professionals (HCPs) and patients engage in conversations as equals and collaboratively plan actions oriented to each patient's priorities, alongside biomedical concerns. Little is known about how the shift to remote consulting initiated with COVID-19 restrictions has impacted PCSP.

Perception of Telemedicine and Remote Learning Following the COVID-19 Pandemic: A Health Education England Survey of London Obstetrics and Gynaecology Trainees
Advances in Medical Education and Practice 15, 2024
Purpose: To determine the level of uptake of telemedicine among postgraduate obstetrics and gynaecology (O&G) trainees in London, and how they perceive its impact on their training., Methods: A mixed-methods survey aimed at exploring trainee perspectives of telemedicine use in clinical practice and its implications for training. Study participants were O&G specialist

doctors on the London (UK) training programme. The survey was distributed to the 2022 cohort via Email communication facilitated by Health Education England

[The effectiveness of tele-triage during the COVID-19 pandemic: A systematic review and narrative synthesis](#)
Journal of Telemedicine and Telecare 30(9), 2023
Background: Telehealth services were used by healthcare centers during the COVID-19 pandemic in order to identify and manage patients at the forefront of the healthcare system. As one of these technologies, tele-triage refers to the assessment of a patient's health status through telephone or another means of communication and recommending treatment or providing appropriate referrals in emergency rooms and primary care offices. This study aimed to perform a systematic review of the evidence on the effectiveness of tele-triage, as one of these technologies, during the COVID-19 pandemic.

[Telehealth provision across allied health professions (AHP): An investigation of reimbursement considerations for its successful implementation in England](#)
Health Science Reports 6(1), 2023
The expansion of telehealth within UK NHS AHP services due to the pandemic was accompanied by changes to the national tariff[9] to move from Payment by Results to block contracts to ensure that services continued to be funded while activity slowed or ceased. In the United Kingdom, the NHS is a publicly funded system, free at the point of need, with groups of general practices coming together to form clinical commissioning groups (CCGs) in each area to commission services.

[The emergence of telehealth in orthotic services across the United Kingdom](#)v
Assistive Technology : The Official Journal of RESNA 35(2), 2023

COVID-19 has impacted the National Health Service provision, creating urgency for departments to adapt and adopt new ways of delivering healthcare. The purpose of this service evaluation was to determine the emergence of telehealth in orthotic services across the UK in response to COVID-19. A survey exploring telehealth use was distributed online to orthotists approximately 6 months after the first peak of COVID-19 in the UK.

[Use of information communication technologies by older people and telemedicine adoption during COVID-19: a longitudinal study](#)
Journal of the American Medical Informatics Association 30(12), 2023
Objectives: To investigate how information communication technology (ICT) factors relate to the use of telemedicine by older people in Ireland during the pandemic in 2020. Furthermore, the paper tested whether the supply of primary care, measured by General Practitioner's (GP) accessibility, influenced people's telemedicine options. Method(s): Based on 2 waves from The Irish Longitudinal Study on Ageing, a nationally representative sample, multivariate logistic models were applied to examine the association between pre-pandemic use of ICTs and telemedicine usage (GP, pharmacist, hospital doctor), controlling for a series of demographic, health, and socioeconomic characteristics.

[Examining the Effectiveness of Telephone Clinics: A Review of a Telephone Foot and Ankle Orthopaedic Clinic in a District General Hospital in the United Kingdom](#)
Cureus 15(11), 2023
INTRODUCTION: Since the outbreak of COVID-19, significant value has been placed on preventative methods for pathogen spread. One such method is the use of telemedicine via telephone clinics (TC). This article is designed to study TC in a District General Hospital in the United Kingdom., AIMS: This

clinical audit aims to evaluate the use of a TC in the United Kingdom and assess its effectiveness. It also aims to assess the use of a clinician-led triaging system to select patients who would receive subsequent telephone follow-ups (TFU).

The role of virtual consultations in cancer genetics: challenges and opportunities introduced by the COVID-19 pandemic
BJC Reports 1(1), 2023
The COVID-19 pandemic changed the delivery of healthcare within the United Kingdom. A virtual model of care, utilising telephone and video consultations, was rapidly imposed upon cancer genetics teams. This large-scale change in service delivery has led to new opportunities that can be harnessed to improve patient care. There is a clear potential to mitigate geographical barriers, meet increasing patient expectations of implementing virtual consultations, reduce hospital carbon footprints, and decrease hospital costs while increasing efficiency.

Staff experiences of training and delivery of remote home monitoring services for patients diagnosed with COVID-19 in England: A mixed-methods study
Journal of Health Services Research and Policy 28(3), 2023
Objectives: Remote home monitoring services for patients at risk of rapid deterioration introduced during the COVID-19 pandemic had important implications for the health workforce. This study explored the nature of 'work' that health care staff in England undertook to manage patients with COVID-19 remotely, how they were supported to deliver these new services, and the factors that influenced delivery of COVID-19 remote home monitoring services for staff.

Telehealth utilization during the Covid-19 pandemic: a systematic review
Computers in Biology and Medicine 138, November 2021

This study aims to review telehealth literature comprehensively since the pandemic started. It also aims to map the research landscape into a coherent taxonomy and characterise this emerging field in terms of motivations, open challenges and recommendations.

Digital technology-based telemedicine for the covid-19 pandemic
Frontiers in Medicine 8, July 2021
In this state-of-the-art review, we gain insight into the potential benefits of demonstrating telemedicine in the context of a huge health crisis by summarizing the literature related to the use of digital technologies in telemedicine applications. We also outline several new strategies for supporting the use of telemedicine at scale.

Dentistry

Teledentistry from research to practice: a tale of nineteen countries
Frontiers in Oral Health 4, 2023
Aim: The COVID-19 pandemic has accelerated teledentistry research with great interest reflected in the increasing number of publications. In many countries, teledentistry programs were established although not much is known about the extent of incorporating teledentistry into practice and healthcare systems. This study aimed to report on policies and strategies related to teledentistry practice as well as barriers and facilitators for this implementation in 19 countries.

Long Term Conditions

What behaviour change technique content is offered to service users of the nationally implemented English NHS Digital Diabetes Prevention Programme: Analysis of multiple sources of

intervention content
Preventive Medicine Reports 32, 2023
The National Health Service Digital Diabetes Prevention
Programme (NHS-DDPP) is a behavioural intervention for adults
in England at risk of developing Type 2 diabetes, rolled out
nationally via independent providers and their digital partners.
The NHS England programme specification indicated 19
behaviour change techniques (BCTs) which should be present in
the intervention, including BCTs to support self-regulation. A
previous evaluation of the face-to-face service found an under-
delivery of some self-regulatory BCTs.

Medicines and misuse disorders

Key implementation factors in telemedicine-delivered
medications for opioid use disorder: a scoping review informed
by normalisation process theory
The Lancet Psychiatry 10(1), 2023
Telemedicine could improve access to medications for opioid
use disorder (MOUD). Telemedicine-delivered MOUD (TMOUD)
has expanded substantially in response to the restrictions
imposed by the COVID-19 pandemic on in-person clinical
contact, yet this expansion has not happened consistently across
all health systems and countries.

Provision of drug and alcohol services amidst COVID-19
pandemic: a qualitative evaluation on the experiences of service
providers
International Journal of Clinical Pharmacy 45(5), 2022
This study demonstrates the multifaceted impact of the COVID-
19 pandemic on UK-based D&A service provisions. The long-
term impact of reduced supervision on Substance Use Disorder
treatment and outcomes and any effect of virtual
communications on service efficiency, patient-provider
relationships and treatment retention and successes are

unknown, suggesting the need for further study to assess their
utility.

Rapid design and implementation of a virtual pain management
programme due to COVID-19: a quality improvement initiative
British Journal of Pain 16(2), 2022
This report demonstrates how a remotely delivered PMP, fully in
line with national guidance, was rapidly developed and
implemented in a hospital setting for patients with chronic
musculoskeletal pain. We also discuss the relevance of our
findings to the issues of cost, patient experience, patient
preferences and inequities of access in delivering
telerehabilitation for chronic pain.

The Efficacy of Tele-Monitoring in Maintaining Glycated
Haemoglobin Levels in Patients with Type 2 Diabetes Mellitus: A
Systematic Review
International Journal of Environmental Research and Public
Health 19(24), 2022
The findings of this review show that telemedicine may be
effective in managing blood glucose in patients with type 2
diabetes. However, factors such as educational level of patients,
attitude and costs may limit its application in primary care. More
studies are required to fully establish the effectiveness of
Telemonitoring in managing patients with type 2 diabetes.

Influence of synchronous primary care telemedicine versus in-
person visits on diabetes, hypertension, and hyperlipidemia
outcomes: a systematic review.
BMC Primary Care 23(52), 2022
A systematic review of the literature found few studies comparing
clinical outcomes resulting from synchronous telemedicine
versus in-person office visits, but the existing literature showed
that in the primary care setting, telemedicine was not inferior to
in-person visits for the management of diabetes, hypertension, or

hypercholesterolemia. These results hold promise for continued use of telemedicine for chronic disease management.

[Telehealth and access to medications in an era of COVID-19. Experience from virtual clinics for patients with severe asthma on biologics](#)
Thorax 76(Suppl 1), 2021
Many patients were satisfied with telemedicine, so this could be used to deliver routine outpatient tertiary care post-pandemic. However, during the lockdown, some patients did not receive scheduled biologic therapy and had insufficient medications. Thus, logistics around supplying medications, and biologics must be considered in plans preparing for a second wave of COVID-19. Teaching patients to self-inject biologic therapy should be considered.

[Telemedicine-delivered treatment interventions for substance use disorders: A systematic review](#)
Journal of Substance Abuse Treatment 101, 2021
With increased negative impacts from opioid and other substance use disorders in the US, it is important for treatments to not only be effective, but also accessible to patients. Treatment delivery via telemedicine, specifically, the use of videoconferencing, which allows real time communication between a patient and a clinician at a distant site, has been shown to be an effective approach for increasing reach and access to treatments for mental health disorders and other chronic illnesses..

Mental Health

[Telemental health for clinical assessment and treatment](#)
BMJ 380, 2023
Results indicate that telemental health assessment and clinical outcomes are similar compared with in-person care but there is

much unexplained variability, as well as evidence that patient clinical and demographic characteristics can influence these findings.

[The use of telemedicine in forensic psychiatry – a quick scoping review of literature from the time of the COVID-19 pandemic](#)
The Journal of Forensic Psychiatry & Psychology 34(1), 2023
A search identified 8 relevant pieces of recent literature that explored this subject. Particular themes were discovered throughout the literature relating to the following topics: pre-COVID experience, accessibility, adoption, staff attitudes, patient attitudes, effectiveness, technological factors, safety, legal and ethical issues, and patient suitability. Despite the wide implementation of videoconferencing facilities for remote consultations, there is concern regarding the lack of clinical and legal guidelines and formal training available to professionals.

[The impact of the COVID-19 pandemic on perinatal services and maternal mental health in the UK](#)
BJPsychOpen 9(1), 2023
The pandemic has contributed to increased rates of mental illness among pregnant and new mothers in the UK. Although the long-term implications are largely unpredictable, it is important to anticipate increased prevalence and complexity of symptoms, which could be hugely detrimental to an already overburdened National Health Service.

[A Telehealth and Telepsychiatry Economic Cost Analysis Framework: Scoping Review](#)
Telemedicine and e-Health 29(1), 2023
The evaluation of telehealth and TP has focused on access, quality, patient outcomes, feasibility, effectiveness, outcomes, and cost. Cost-effectiveness, cost–benefit, and other analytic models are more common with telehealth than TP studies, and

these studies show favorable clinical, quality of life, and economic impact.

Impact of the COVID-19 pandemic on remote mental healthcare and prescribing in psychiatry: an electronic health record study
BMJ Open 11(3), 2012
The COVID-19 pandemic has been associated with a marked increase in remote consultation, particularly among younger patients. However, there was no evidence that this has led to changes in psychiatric prescribing. Nevertheless, further work is needed to ensure that older patients are able to access mental healthcare remotely.

Implementation, Adoption, and Perceptions of Telemental Health During the COVID-19 Pandemic: Systematic Review
Journal of Medical Internet Research 23(1), 2021
Implementation of telemental health allowed some continuing support to the majority of service users during the COVID-19 pandemic and has value in an emergency situation. However, not all service users can be reached by this means, and better evidence is now needed on long-term impacts on therapeutic relationships and quality of care, and on impacts on groups at risk of digital exclusion and how to mitigate these.

Implementing a Digital Tool to Support Shared Care Planning in Community-Based Mental Health Services: Qualitative Evaluation
Journal of Medical Internet Research 22(3), 2020
Findings highlight the importance of congruence between staff, organization, and external policy priorities and digital technologies in aiding intervention engagement, and the need for ongoing training and support of those intended to use the technology during and after the end of implementation interventions.

Ophthalmology

What are the experiences of teleophthalmology in optometric referral pathways? A qualitative interview study with patients and clinicians
BMJ Open 14(5), 2024
OBJECTIVE: Implementing teleophthalmology into the optometric referral pathway may ease the current pressures on hospital eye services caused by over-referrals from some optometrists. This study aimed to understand the practical implications of implementing teleophthalmology by analysing lived experiences and perceptions of teleophthalmology in the optometric referral pathway for suspected retinal conditions

Paediatric/ young people

A scoping review of digital technologies in antenatal care: recent progress and applications of digital technologies
BMC Pregnancy and Childbirth 25(1), 2025
INTRODUCTION: Digital health technologies have vastly improved monitoring, diagnosis, and care during pregnancy. As expectant mothers increasingly engage with social media, online platforms, and mobile applications, these innovations present valuable opportunities to enhance the quality of maternal healthcare services.

Advancing Pediatric Care: The virtualKIDS Experience in Nursing-Led Audio-Visual Clinical Services Abstract only*
Creative Nursing 30(2), 2024
During the COVID-19 pandemic, the escalating trend of pediatric patients, particularly non-urgent cases, going to the emergency departments (EDs) in New South Wales, Australia, prompted the establishment of virtualKIDS, a nursing-led telehealth service. This service, initiated in June 2021, operates 24/7 and provides

comprehensive care through audio-visual consultations emphasizing a patient-centered approach.

The Feasibility and Acceptability of Remote Videoconference Use of the Brief Developmental Assessment Tool for Young Children with Congenital Heart Disease
Telemedicine and e-Health 29(1), 2023
The acceptability of the remote use of the BDA for the developmental screening of children with CHD will allow for the possibility of increased screening for more children and earlier identification of developmental problems, both during and after COVID-19 restrictions.

Autistic young people's experiences of remote psychological interventions during COVID-19
Autism 27(6), 2023
Thematic analysis of responses identified challenges/barriers, benefits, facilitators, and factors perceived to cause variability in experiences of remote delivery. These broadly echoed those identified in existing literature, but their underlying reasons had not been explored before and some were novel. Novel findings mostly surrounded difficulties navigating a new social system online, and the intensity of the social interaction feeling reduced remotely.

Impacts of health care service changes implemented due to COVID-19 on children and young people with long-term disability: A mapping review
Development Medicine and Child Neurology 65(7), 2023
Reduction of face-to-face care and usual provision had a huge impact on children and families. Adoption of telehealth provided continuity for the care and management of some conditions. There was limited evidence of changes to mental health services, transitions of care, social care, or child-reported satisfaction or acceptability of service changes.

Utilisation of telemedicine in paediatric cardiac emergencies during the COVID-19 pandemic: How to set it up, develop and sustain inCollaboration with citizens as stakeholders
Preprint from Research Square, 2022
The Welsh Paediatric Cardiology Telemedicine Service has demonstrated its true utility, such that acute cardiac emergencies relating to even ductusdependent major congenital heart anomalies can be attended and managed in the most effective way by online interactions between a paediatric cardiologist and local paediatricians. This study paves the way for the use of live tele-echocardiography in the diagnosis of major cardiac anomalies without the need for the specialist being physically present.

Effectiveness of delivering evidence-based eating disorder treatment via telemedicine for children, adolescents, and youth
Eating Disorders 31(1), 2022
This study determined the effectiveness of enhanced Family-Based Treatment (FBT+) delivered using telemedicine for children and adolescents with eating disorders. Participants had a confirmed eating disorder diagnosis, lived in states where treatment was available, and lived with a family member willing to participate.

Parent/Caregiver Views of the Effectiveness of Speech-Language Pathology for Children Born With Cleft Palate Delivered via Telemedicine During COVID-19
LaNGUAGE, Speech and Hearing Services in Schools 53(2), 2022
Most parents reported that they felt SLP delivered via telemedicine during the first few months of the COVID-19 pandemic in the UK was at least "somewhat effective." It is important to interpret this in the context of there being no other method of service delivery during this time and that this study only represents families who were able to access SLP delivered

via telemedicine. Further work is needed to identify which children with cleft palate might benefit from SLP delivered via telemedicine to inform postpandemic service provision.

[Paediatric and adolescent asthma: A narrative review of telemedicine and emerging technologies for the post-COVID-19 era](#)
Clinical & Experimental Allergy 51(3), 2021
Although there are gaps in the current knowledge, there is evidence demonstrating the important role of telemedicine in management of childhood and adolescent asthma. However, there is an urgent need for healthcare researchers and policymakers to focus on improving the technologies and address the disparities in accessing novel technology-based management strategies to improve asthma care.

[The perceived impact of COVID-19 and associated restrictions on young people with epilepsy in the UK: Young people and caregiver survey](#)
Seizure 85, 2021
Results indicate that the pandemic and associated restrictions have had a negative impact on young people with epilepsy. Perceived increases in seizures, reluctance to go to hospital and cancelled investigations are likely to impact on epilepsy management. The wider psychosocial impact is also likely to be significant with increases in child and caregiver mental health problems in an already vulnerable group.

[Telehealth for Children With Epilepsy Is Effective and Reduces Anxiety Independent of Healthcare Setting](#)
Frontiers in Paediatrics 9, 2021
In our cohort, some children with epilepsy experienced increased seizures and worsening behavior during the first 9 months of the current pandemic. In addition, our data suggest that telemedicine might reduce parental anxiety symptoms, and families who

experienced telehealth were more positive and open to similar appointments in the future.

[Children with congenital colorectal malformations during the UK Sars-CoV-2 pandemic lockdown: an assessment of telemedicine and impact on health](#)
Paediatric Surgery International 37(11), 2021
In the follow-up of children and adolescents with CCM during the first UK lockdown using telemedicine we found that over half had stable health conditions. Patients needing additional care could not be predicted by the severity of their disease or their bowel function alone.

Palliative Care

[Specialist palliative care out of hours telephone advice in Ireland: a national survey](#) Full text available with NHS OpenAthens account*
BMJ Supportive and Palliative Care 14, 2024
Objectives In 2015 the All-Ireland Institute of Hospice and Palliative Care identified access to specialist palliative care (SPC) advice out of hours (OOH) as their number one research priority. Receiving appropriate advice in response to palliative care needs OOH can address a patient/family's concerns and prevent unnecessary hospital attendances. The aim of this study was to describe the current model of SPC OOH advice in the units that run this service, and gain a greater understanding of the nature of calls received by these services.

Patient Safety

[Risks of delivering care by telephone or video in general practice: review of national complaints data](#)
British Journal of General Practice 73, 2023
Background Remote consulting was rolled out across general

practice in 2020 in response to the COVID- 19 pandemic. Although most consultations are carried out safely, there are some cases where remote care may contribute to adverse outcomes. Aim To understand the risks of delivering care by telephone or video in general practice. Method The learning validation national summary of primary care complaints was obtained from NHS England for quarter 4, 2020-2021 to quarter 4, 2021-2022. A thematic analysis was performed on these cases by reviewer 1, with validation of themes by reviewer 2.

An overview of the effect of telehealth on mortality: A systematic review of meta-analyses
Journal of Telemedicine and Telecare 29(9), 2023
Telehealth is recognised as a viable way of providing health care over distance, and an effective way to increase access for individuals with transport difficulties or those living in rural and remote areas. While telehealth has many positives for patients, clinicians and the health system, it is important that changes in the delivery of health care (e.g. in-person to telehealth) do not result in inferior or unsafe care. In this review, we collate existing meta-analyses of mortality rates to provide a holistic view of the current evidence regarding telehealth safety.

Physical activity and rehabilitation

A scoping review of foot and ankle telemedicine guidelines.
Health Science Reports 6(1), 2023
This review suggests the development of foot and ankle telemedicine guidelines with recommendations on how they can better provide accessible care to their patients, making foot and ankle care management not only a hand-on-one but also reachable virtually, where applicable.

Policy brief: Framework to guide Allied Health Professional telehealth patient consultation guidelines and training
Staffordshire University, 2023
The intended purposes of this policy brief are to: (1) present key telehealth domains that should be considered when designing telehealth guidelines for patient consultations, and (2) present areas in which AHPs should be trained prior to providing telehealth consultations.

Patient Outcomes of Virtual Foot and Ankle Telephone Clinics during COVID-19 Pandemic: One Year Experience
The Journal of Foot and Ankle Surgery 62(3), 2023
The financial savings calculated during the study period was about £25000 ($30,000). Virtual telephone clinic consultations are safe, efficient and cost effective with good patient satisfaction outcomes. It is an alternative or can be conducted adjunct to face to face consultations with adequate planning, training, good communication skills and proper documentation.

Telehealth interventions for physical activity and exercise participation in postpartum women: A quantitative systematic review
Preventative Medicine 167, 2023
With the minimal assessment of health-related outcomes, there is limited scope to assess the effectiveness of these interventions for postpartum women. Future research interventions need to be reported according to a validated trial reporting system and focus on relevant health related outcomes including postpartum depressive symptoms, quality of life, cardiovascular fitness, muscular strength and body composition.

Increasing Use of Telemedicine for Neurological Disorders During the COVID-19 Pandemic: A Mini-Review
Journal of Multidisciplinary Healthcare 16, 2023
Conclusively, this article supports the idea that telemedicine is an effective tool for providing specialized healthcare for patients with neurological conditions while adhering to social distancing or lockdown policies instituted during the COVID-19 pandemic. Government and medical/healthcare authorities, physicians and healthcare providers need to work together to expand the adoption of telemedicine applications, even after the COVID-19 crisis.

Virtual Healthcare Solutions for Cardiac Rehabilitation: A Literature Review
European Heart Journal Digital Health 4(2), 2023
Efficacy outcomes with virtual cardiac rehabilitation sometimes improve on the centre-based outcomes, however, superior clinical efficacy may not necessarily be the only outcome of interest. The promise of virtual cardiac rehabilitation includes the potential for increased user adherence and longer-term patient engagement. If these outcomes can be improved, that would be a significant justification for using this technology.

Telehealth for Parkinson disease patients during the COVID-19 pandemic: the TeleParkinson study
Arquivos de Neuro-Psiquiatria 80(10), 2023
Patient recruitment, attendance, and technical issues rates were 61.3%, 90.5%, and 13.3%, respectively, with good scores of patient acceptance and satisfaction with the study intervention. The telehealth intervention improved physical activity, including the number of walks for at least 10 continuous minutes (p = 0.009) and the number of moderate-intensity activities lasting at least 10 continuous minutes (p = 0.001).

Telerehabilitation for physical disabilities and movement impairment: A service evaluation in South West England
Journal of Evaluation in Clinical Practice 28(6), 2022
Telerehabilitation holds promise in health and social care, but it is necessary to share good practice to ensure it is safe, effective and accessible. We collated information and recommendations that informed the content of the Telerehab Toolkit (https://www.plymouth.ac.uk/research/telerehab), a practical resource for practitioners, patients and carers, with a focus on remote assessment and management of physical disabilities and movement impairment.

Telehealth provision across allied health professions (AHP): An investigation of reimbursement considerations for its successful implementation in England
Health Science Reports 6(1), 2022
The use of telehealth is not new, however, its recent ubiquity in the National Health Service (NHS) led to the realization that telehealth can offer people a more tailored elective pathway. Resulting in the UK government declaring that digital technology is fundamental to future patient care with a commitment to deliver "at-scale virtual consultations."

Telemedicine and virtual respiratory care in the era of COVID-19
ERJ Open research 8(3), 2022
As we emerge from the pandemic, the balance of remote versus face-to-face consulting, and the specific role of digital health in different clinical and healthcare contexts will evolve. What is clear is that telemedicine in one form or another will be part of the "new norm".

An evaluation of the provision of oncology rehabilitation services via telemedicine using a participatory design approach
Supportive Care in Cancer 30, 2021
Positive aspects regarding telemedicine provision were highlighted including reduced financial and time burden on patients, and increased flexibility for both staff and patients. The key concerns included digital exclusion, safety, communication and patient choice. Four co-design groups have been established to enact changes in these priority areas.

Digital Health Rehabilitation Can Improve Access to Care in Spinal Cord Injury in the UK: A Proposed Solution
International Journal of Telerehabilitation 12(1), 2020
Lack of specialist beds, inadequate finance and shortage of skilled staff make it difficult for Spinal Cord Injury Centres (SCICs) in the United Kingdom (UK) to admit all newly injured individuals. Length of stay of those admitted can be too brief.

Primary care

Patterns in GP Appointment Systems: a cluster analysis of 3480 English practices
The British Journal of General Practice: The Journal of the Royal College of General Practitioners, 2025
Background In response to increasing demand for appointments, UK general practices have adopted a range of appointment systems. These systems vary widely in implementation. These changes have not yet been clearly described. Aim Characterise patterns of primary care delivery in English general practices. Design and Setting Cross-sectional study using NHS Appointments in General Practice data from 3480 English GP practices, totalling 56 million appointments between August and October 2023.

Effectiveness and safety of asynchronous telemedicine consultations in general practice: a systematic review
BJGP Open, 2024
Background: There is a focus on increasing asynchronous telemedicine use, which allows medical data to be transmitted, stored, and interpreted later; however, limited evidence of the quality of care it allows in general practice hinders its use. Aim: To investigate uses and effectiveness of asynchronous telemedicine in general practice, according to the domains of healthcare quality, and describe how the COVID- 19 pandemic changed its use.

Current experience and future potential of facilitating access to digital NHS primary care services in England: the Di-Facto mixed-methods study
Health and Social Care Delivery Research 12(32), 2024
Background: Current National Health Service policy in England encourages enhanced digital access in primary care service provision. In this study, we investigate 'digital facilitation' - that range of processes, procedures and personnel which seeks to support National Health Service primary care patients in their uptake and use of online services.

The Use of Online Consultation Systems and Patient Experience of Primary Care: Cross-Sectional Analysis Using the General Practice Patient Survey
Journal of Medical Internet Research 26(1), 2024
Background: NHS England encourages the use of online consultation (OC) systems alongside traditional access methods for patients to contact their general practice online and for practices to manage workflow. Access is a key driver of patients' primary care experience. The use of online technology and patient experience vary by sociodemographic characteristics. Objective(s): This study aims to assess the association between OC system use and patient experience of primary care in English

general practice and how that varies by OC system model and practice sociodemographic characteristics (rurality, deprivation, age, and ethnicity).

Systematic review and narrative synthesis of the experiences of individuals with chronic pain participating in digital pain management interventions
PloS One 19(7), 2024
BACKGROUND: The use of digital pain management interventions has grown since the Covid 19 pandemic. The aim of this study was to systematically review and synthesise evidence from qualitative studies regarding the experiences of individuals with chronic pain participating in digital pain management interventions in primary care and community settings.

Clinician experiences of a hybrid virtual medical service supporting rural and remote hospitals: a qualitative study
Abstract only*
The Medical Journal of Australia 221 Suppl 11, 2024
OBJECTIVES: To explore the experiences of clinicians delivering, facilitating, and potentially affected by a hybrid virtual medical model servicing rural and remote hospitals in western New South Wales.,

How and why are video consultations used in urgent primary care settings in the UK? A focus group study
BJGP Open 7(3), 2023
Background: Video consulting was widely rolled out across general practice at the start of the COVID-19 pandemic. In the in-hours setting there has been a marked shift away from using the technology, but many urgent care clinicians continue to use video consulting. Little is known about the reasons behind this discrepancy.

How is primary care access changing? A retrospective, repeated cross-sectional study of patient-initiated demand at general practices in England using a modern access model, 2019-2022
BMJ Open 13(8), 2023
Objectives To explore trends in patient-initiated requests for general practice services and the association between patient characteristics including demographics, preferences for care and clinical needs and modes of patient contact (online vs telephone), and care delivery (face-to-face vs remote) at practices using a modern access model. Design Retrospective repeated cross-sectional study spanning March 2019 to February 2022. Setting General practices in England using the askmyGP online consultation system to implement a modern general practice access model using digital and non-digital (multimodal) access pathways and digitally supported triage to manage patient-initiated requests.

Digitally deployed, GP remote consultation video intervention that aims to reduce opioid prescribing in primary care: protocol for a mixed-methods evaluation
BMJ Open 13(2), 2023
INTRODUCTION: Opioid prescribing rates are disproportionately high in the North of England. In addition to patients' complex health needs, clinician prescribing behaviour is also a key driver. Although strategies have been initiated to reduce opioid prescribing nationally, the COVID-19 pandemic has interrupted service provision and created challenges for the system and health professionals to tackle this complex issue. A pilot intervention using smartphone video messaging has been developed to remotely explain the rationale for opioid reduction and facilitate self-initiation of support. The aim of this study is to evaluate the potential benefits, risks and economic consequences of 'at scale' implementation.

Synchronous Home-Based Telemedicine for Primary Care: A Review
Medical Care Research and Review 80(1), 2023
Facilitators included proper technology, training, and reimbursement policies that created payment parity between telemedicine and in-person care. Barriers included technological issues, such as low technical literacy and poor internet connectivity among certain patient populations, and communication barriers for patients requiring translators or additional resources to communicate.

Admission avoidance for older adults facilitated by telemedicine during the COVID-19 pandemic
Endocrine, Metabolic & Immune Disorders Drug Targets 23(8), 2023
The coronavirus pandemic has disproportionately affected older adults and has provided an incentive to find alternatives to emergency department attendance to avoid unnecessary exposure to the SARS-CoV-2 virus. To address this issue, a specialist geriatric multidisciplinary team at Queen Elizabeth Hospital set up a novel telemedicine approach to the ambulance service with the aim of reducing unnecessary emergency department attendance for older adults. This study provides a service evaluation in its first year of use.

Primary health care during the COVID-19 pandemic: A qualitative exploration of the challenges and changes in practice experienced by GPs and GP trainees
PLoS One, 2023
Several key changes to general practice occurred as a result of the COVID-19 pandemic, including a rapid uptake of telemedicine. The pandemic exposed the strengths and limitations of normal general practice and highlighted the importance of workplace camaraderie. These findings contribute to the evidence base used to adapt PHC infrastructures as we emerge from the pandemic.

Expansion of telehealth in primary care during the COVID-19 pandemic: benefits and barriers
Journal of the American Association of Nurse Practitioners, 2021
This article examines the benefits of telehealth, including continuity of care, convenience of access to care, screening and triaging, and social distancing and disease prevention. The utilization of telehealth and financial implications are discussed, including reimbursement and cost-effectiveness.

Telehealth Palliative Care in Nursing Homes: A Scoping Review
Journal of the American Meical Directors Association 24(3), 2023
Although limited in scope and quality, the current evidence for telehealth palliative care interventions shows promise for improving quality and outcomes of serious illness care in NHs. Future empirical studies should focus on intervention effectiveness, implementation outcomes (eg, managing technology), stakeholders' experience, and costs.

Remote Monitoring

Hospital Is Not the Home: Lessons From Implementing Remote Technology to Support Acute Inpatient and Transitional Care in the Home in the United States and United Kingdomv
Journal of Medical Internet Research 26, 2024
The COVID-19 pandemic, patient preference, and economic opportunity are shifting acute care from the hospital to the home, supported by the transformation in remote monitoring technology. Monitoring patients with digital medical devices gives unprecedented insight into their physiology. However, this technology does not exist in a vacuum. Distinguishing pathology from physiological variability, user error, or device limitations is

challenging. In a hospital, patients are monitored in a contrived environment.

Rheumatology

[A national survey of rheumatology telephone advice line support in the United Kingdom: frontline perspectives](#)
Rheumatology Advances in Practice 8(3), 2024
Objectives: Telephone advice lines are a key component of rheumatology services. A national survey of telephone advice line providers was undertaken to explore how this service is currently delivered and the impact on those delivering it to inform providers, policymakers and patients.

Secondary care

[An international, multicenter post hoc analysis comparing in-person and virtual medication management strategies in post-ICU recovery clinics](#) Abstract only*
American Journal of Health-System Pharmacy : AJHP : Official Journal of the American Society of Health-System Pharmacists 82(5, 2025
PURPOSE: To compare the incidence of ICU pharmacist interventions in intensive care unit recovery center (ICU-RC) in-person and virtual clinic visits., METHODS: This was a post hoc analysis of interventions implemented by ICU pharmacists among adult patients who were referred to 12 ICU-RCs across the United States and the United Kingdom between September 2019 and July 2021

[Barriers, facilitators and next steps for sustaining and scaling virtual hospital services in Australia: a qualitative descriptive study](#)
The Medical Journal of Australia 221 Suppl 11, 2024
OBJECTIVE: To describe the barriers to and facilitators of

implementing and delivering virtual hospital (VH) services, and evidence and practice gaps where further research and policy changes are needed to drive continuous improvement., STUDY DESIGN: Qualitative descriptive study., SETTING, PARTICIPANTS: Online semi-structured interviews and a focus group were conducted between July 2022 and April 2023 with doctors, nurses and leadership staff involved in VH services at three sites in New South Wales, Australia.

[Have telemedicine consultations been beneficial as follow-up appointments for people with multiple sclerosis?](#)
British Journal of Neuroscience Nursing 19(Sup1), 2023
This study showed that the rapid uptake of telemedicine during the Covid-19 pandemic was useful to maintain regular reviews of people with MS. However, given the small sample size and limited age range, further research will be required to ascertain whether people with MS find telelmedicince follow-up appointments as beneficial as face-to-face appointments.

[Telephone versus face-to-face clinics for the management of new rhinology referrals: a retrospective cohort study](#)
Journal of Laryngology and Otology 137(7), 2023
Objective: This study aimed to compare outcomes of telephone and face-to-face consultations for new rhinology referrals and discuss the wider use of telemedicine in rhinology. Method: This was a retrospective cohort study of new rhinology referrals seen in either a telephone or face-to-face clinic. Primary outcome was the proportion of patients given a definitive outcome at initial appointment (discharged or added to waiting list) versus those requiring follow up.

Bringing hospital care home: Virtual Wards and Hospital at Home for older people
British Geriatyrics Society, August 2022
This document summarises the current landscape of Virtual Wards from the perspective of healthcare for older people, and provides advice to BGS members looking to set up such services for older people living with frailty.

Are telephone consultations the future if the NHS? The outcomes and experiences of an NHS urological service in moving to telemedicine?
Future Healthcare Journal 8(1), March 2021
This study demonstrates high overall satisfaction with the use of telephone consultations among urology patients. For some patients, telephone consultations are more suitable and may be utilised more frequently in the future. However, it is clear that in selected cases face-to-face consultations are required for safe, comprehensive clinical assessment.

Safety of video-based telemedicine compared to in-person triage in emergency ophthalmology during COVID-19
eClinical Medicine 34, 2021
We demonstrate comparable patient safety of videoconsultations at one-month follow-up to in person review. The service is acceptable to patients and reduces the risk of COVID-19 transmission. We propose that videoconsultations are effective and desirable as a tool for triage in ophthalmology.

Using telemedicine to improve access, cost and quality of secondary care for people in prison in England: a hybrid type 2 implementation effectiveness study
BMJ Open 10(2), 2020
Implementation and use in English prison settings has been limited to date despite political drivers for change. We plan to research the implementation of a new prison-hospital

telemedicine model in an English county to understand what factors drive or hinder implementation and whether the model can improve healthcare outcomes as demonstrated in other contextual settings.

Social care and nursing homes

Digital health technology: factors affecting implementation in nursing homes
Nursing Older People, 2020
Three broad themes emerged from the interviews: improving communication; engaging with DHT and retaining humanised care; and introducing DHT and protecting data security. The co-creation workshop participants formulated the LAUNCH process model, a nurse-led, stepped approach supporting DHT implementation in nursing homes.

The use and impact of digital COVID-19 tracking in adult social care: a prospective cohort study of care homes in Greater Manchester
BMC infectious Diseases 23(47), 2023
The use of the COVID-19 symptom tracker in care homes was not maintained except in Locality 1 and did not appear to reduce the COVID-19 spread. COVID-19 cases in care homes were mainly driven by care home local-area COVID-19 cases and infections among the staff members. Digital deterioration trackers should be co-produced with care home staff, and local authorities should provide long-term support in their adoption and use.

Stroke/ TIA

Telehealth practice in aphasia: A survey of UK speech and language therapists, with a focus on assessment
International Journal of Language & Communication Disorders 59(4), 2024
BACKGROUND AND OBJECTIVES: Evidence suggests telehealth in speech and language therapy can enhance access to care, cost-effectiveness and satisfaction. However, little is known about use of telehealth in the United Kingdom. Moreover, many assessments/outcome measures for aphasia have been tested for face-to-face administration only, posing challenges to reliable use within the telehealth context.

Cost effectiveness analysis of the East of England stroke telemedicine service
Journal of Stroke and Cerebrovascular Disease 32(4), 2023
Integrating a telemedicine service improves thrombolysis rates in out-of-hours acute stroke care and is associated with NHS and social care savings and QALY gains. Telemedicine is a cost-effective approach to delivering stroke care to remote communities with limited access to stroke specialists.

Telemedicine for neurological diseases: A systematic review and meta-analysis
European Journal of Neurology 30(1), 2022
The aim was to systematically review the effectiveness and safety of telemedicine combined with usual care (in-person visits) compared to usual care for the therapeutic management and follow-up assessment of neurological diseases.

Prehospital video triage of potential stroke patients in North Central London and East Kent: rapid mixed-methods service evaluation
Health and Social Care Delivery Research 10(26), 2022

This study showed that prehospital video triage was usable, acceptable and safe in stroke care, but it did require clinician training, stable network connection and appropriate back-up processes.

Considerations for the Implementation of a Telestroke Network: A Systematic Review
Journal of Stroke and Cerebrovascular Disease 31(1), 2022
The application of telestroke has matured considerably since its inception in 1999. The use of telestroke is now recommended in several published guidelines. Consequently, jurisdictions without a telestroke service are seeking practical information on the best approach to implement telestroke.

Hyperacute stroke thrombolysis via telemedicine: a multicentre study of performance, safety and clinical efficacy
BMJ Open 12(1), 2022
The results from this large hyperacute telestroke cohort indicate two important points for clinical practice. First, telemedicine via a hubless horizontal model provides a clinically effective and safe method for delivering hyperacute stroke thrombolysis. Second, improved door-to-needle times were offset by a concerning rise in prehospital timings.

Delivering telemedicine consultations for patients with transient ischaemic attack during the COVID-19 pandemic in a comprehensive tertiary stroke centre in the United Kingdom.
European Journal of Neurology 28(10), 2021
Our analysis showed that during the pandemic, our telemedicine consultations of TIA patients were not associated with an increased 3-month rate of recurrent TIA/stroke or cardiovascular hospital admissions.

Stroke Care in the United Kingdom During the COVID-19 Pandemic
Stroke 52(6), 2021
Assuming that the true incidence of acute stroke did not change markedly during the pandemic, hospital avoidance may have created a cohort of untreated stroke patients at risk of poorer outcomes or recurrent events. Unanticipated improvements in stroke care quality should be used as an opportunity for quality improvement and to learn about how to develop resilient health care systems.

Establishment of an internationally agreed minimum data set for acute telestroke
Journal of Telemedicine and Telecare 27(9), 2020
The acute telestroke minimum dataset provides a recommended set of variables to systematically evaluate acute telestroke programmes in different countries. Adoption is recommended for new and existing services.

The Association Between Stroke Mortality and Time of Admission and Participation in a Telestroke Network
Journal of Stroke and Cerebrovascular Disease 29(2), 2020
Our study found that the hour of arrival for acute ischemic stroke is linked with in-hospital mortality in large hospitals, with patients more likely to die if they arrive during the nighttime hours as compared to the daytime hours. Telestroke participation is linked with lower odds of hospital mortality in all hospitals.

Surgery

Innovations and Implementation of Telemedicine in Surgical Clinics Beyond COVID-19: A Narrative Review
Telelmedicine and e-Health 29(1), 2023
Advanced telecommunication technology has enabled telemedicine to become an effective and safe form of health care delivery, with high consumer and provider satisfaction. Innovative protocol and technology developments have addressed the limitations of telemedicine. Sophisticated and familiar medical software integrates with electronic medical records to automate and streamline documentation, consent, and billing processes. Surgical clinics are investing in telehealth workflow co-ordination and information technology support to troubleshoot any technical difficulties as well as education for providers and consumers to address technology illiteracy.

Telemedicine in orthopaedics and trauma surgery during the first year of COVID pandemic: a systematic review
BMC Musculoskeletal Disorders 24(101), 2023
Various successful applications of telemedicine have already been reported in orthopaedics and trauma surgery, with a strong increase in scientific output during the COVID-19 years 2020–2021. Whether the advantages of such an approach will lead to a relevant implementation of telemedicine in everyday clinical practice should be monitored after the COVID-19 pandemic.

Delivery of urological services (telemedicine and urgent surgery) during COVID-19 lockdown: experience and lessons learnt from a university hospital in United Kingdom
SCottosh Medical Journal 65(4), 2023
Hospitals and urologists can benefit from the model used by our hospital to mitigate the impact and prioritise patients most in need of urgent care. Reorganisation and flexibility of healthcare delivery is paramount in these troubled times and will allow clinical activity without compromising patient safety.

Telemedicine in oculoplastic and adnexal surgery: clinicians' perspectives in the UK Full text available with NHS OpenAthens account*
British journal of Ophthalmology 106(10), 2022

Telemedicine has become an integral part of the oculoplastic service delivery since the COVID-19 pandemic its use is likely to continue. Further development of digital infrastructure and improvement of clinical examination capabilities are required to enable its wider adoption.

[Use of telehealth by surgical specialties during the covid-19 pandemic](#)
JAMA Surgery 156(7), March 2021
Results from this study showed that telehealth use grew across all surgical specialties in Michigan in response to the COVID-19 pandemic. While rates of telehealth use have declined as in-person care has resumed, telehealth use remains substantially higher across all surgical specialties than it was prior to the pandemic.

[Telemedicine in cardiovascular surgery during COVID-19 pandemic: A systematic review and our experience](#)
Journal of Cardiac Surgery, 2020
Overall, the use of virtual consultations and remote monitoring is feasible and best placed to support these patients via triaging and postoperative monitoring. However, TM can be limited by the need of sophisticated technological requirement and patients' educational and know-how computer literacy level.

Waiting times and lists

[Reducing outpatient wait times through telemedicine: a systematic review and quantitative analysis](#)
BMJ Open 15(1), 2025
Objectives: Population ageing and the rise in chronic diseases place continual stress on healthcare systems. Scarce resources often impede equitable access to healthcare, particularly in rural areas, resulting in prolonged waiting times and heightened risks of morbidity and mortality. Telemedicine has emerged as a promising solution, offering remote and equitable care that could potentially bridge access gaps and enhance health outcomes. This systematic review aims to quantitatively examine the impact of telemedicine implementation on waiting times, defined as the time passed from the booking of a visit for an outpatient to the administration of the service.

[Nurse practitioner led telehealth services: A scoping review](#)
Journal of Clinical Nursing 33(3), 2024
AIM: To explore the educational preparation of nurse practitioners to deliver telehealth services and their impact on access to care., DESIGN: Scoping review., METHODS: A search was undertaken 4 April 2022. Primary studies that focused on nurse practitioners and their patients/clients engaging in telehealth services in any healthcare setting or clinical area within Australia, New Zealand, United States, Canada, United Kingdom, and Ireland, published between 2010 to 2022, were included.

Leadership and strategy

[How have remote and digital approaches impacted continuity? A mixed-studies systematic review](#)
British Journal of General Practice 73(730), 2023
The dearth of evidence around continuity in a remote and digital context is troubling. Further research should explore the links between the shift to remote care, continuity and equity, using real-world evaluation frameworks to ascertain when and for whom continuity adds most value and how this can be enabled or maintained.

[Healthcare Built Environment and Telemedicine Practice for Social and Environmental Sustainability](#)
Sustainability 15(3), 2023

The practice of telemedicine started at the beginning of the 20th century but has never been widely implemented, even though it is significantly sustainable compared to traveling to healthcare However, the ongoing COVID-19 pandemic pushed organisations and patients to accept this technology.

A multi-stakeholder approach is needed to reduce the digital divide and encourage equitable access to telehealth
Journal of Telemedicine and Telecare 29(1), 2023
To improve equity of access to telehealth, we need to reduce the digital divide through a multi-stakeholder approach. This article proposes practical steps to reduce the digital divide and encourage equitable access to telehealth. Enabling more equitable access to telehealth requires improvements in digital health literacy, workforce training in clinical telehealth, co-design of new telehealth-enabled models of care, change management, advocacy for culturally appropriate services, and sustainable funding models.

Leadership in the context of digital health services: A concept analysis
Journal of Nursing Management 30(7), 2022
Leadership attributes concerned leaders' behaviour, roles and qualities. Antecedents concerned informatics skills and competence, information and tools, understanding care systems and their complexity and education. Consequences related to organization, professionals and patient and care.

Editorial: Telemedicine: is the new normal fit for purpose?
The Lancet Rheumatology 4(1), January 2022
At the start of this year, NHS England recommended that at least 25% of outpatient appointments should be by telephone or video for the foreseeable future. But although the time and cost-saving advantages to both health systems and patients are clear, the suitability of telemedicine to rheumatological services remains uncertain.

Perspectives from leadership and frontline staff on telehealth transitions in the Los Angeles safety net during the COVID-19 pandemic and beyond
Frontiers in Digital Health 9;4, 2022
Patient, clinic, and health system level factors must be considered when disseminating telehealth services across the safety net. Participant discussions illustrated how multilevel facilitators and barriers influenced the feasibility of video visits and other telehealth encounters.

Outcomes of a Student-Led Telemedicine Clinic in Response to COVID-19
Journal of Ambulatory Care 44(3), 2022
Through a retrospective cohort study, we determined that student triage decision was associated with patient outcomes, including hospitalization status, COVID-19 test administration, and COVID-19 test result. These results quantify the outcomes of a student-led telemedicine clinic to combat the ongoing pandemic and may serve as a model for implementation of similar clinics to alleviate mounting health care system burden.

A Blueprint for the Conduct of Large, Multisite Trials in Telemedicine
Journal of Medical Internet Research 23(9), 2021
Critical issues of ensuring leadership and buy-in, appropriate funding, and diverse and representative trials are identified and described, as well as challenges related to clinical, informatics, regulatory, legal, quality, and billing. The lessons learned from these studies were used to create a blueprint of key aspects to consider for the design and implementation of multisite telemedicine trials.

Ten statements to support nurse leaders implement e-health tools for nursing work in hospitals: A modified Delphi study
Journal of Clinical Nursing 30(9-10), 2021
Implementation of e-health tools for nursing work is complex in health settings and requires careful examination of multiple factors and interactions between clinicians, tools, service users and the health organisation. This research proposes ten statements to support nurse leaders with decisions about implementing e-health tools to support nursing work in hospitals.

Understanding factors that enabled digital service change in general practice during the Covid-19 pandemic
The King's Fund, 2021
This independent report was commissioned by the Department of Health and Social Care. The views in the report are those of the authors and all conclusions are the authors' own.

Telemedicine takes centre stage during Covid-19 pandemic
BMJ Innovations 6(4), 2020
The COVID-19 pandemic continues to spread rapidly and overwhelm health systems around the world. To cope with this unprecedented usage of healthcare resources, increasingly novel solutions are being brought into the fray. Telemedicine has been thrust into the spotlight in the fight against COVID-19 and is being employed in many different ways to better tackle the challenges. Telemedicine will likely have a more permanent place in traditional healthcare delivery long after COVID-19 is over as users and providers recognise its utility.

The long road to patient co-production in telehealth services
BMJ 366, 2019
The NHS Near Me service, which offers online consultations to remote communities in Scotland, heavily involved patients in its development, reports Lynn Eaton, but services can always go further in striving for equal partnership with patients.

NHS Landscape

Landscape of Digital Technologies Used in the National Health Service in England: Content Analysis
JMIR Formative Research 19(8), 2024
Background: In England, digital technologies are exploited to transform the way health and social care is provided and encompass a wide range of hardware devices and software that are used in all aspects of health care. However, little is known about the extent to which health care providers differ in digital health technology capabilities and how this relates to geographical and regional differences in health care capacities and resources.

Quality

Quality measures of virtual care in ambulatory healthcare environments: a scoping review
BMJ Open 14(4), 2024
Objectives: Delivery of virtual care increased throughout the COVID-19 pandemic and persisted after physical distancing measures ended. However, little is known about how to measure the quality of virtual care, as current measures focus on in-person care and may not apply to a virtual context. This scoping review aims to understand the connections between virtual care modalities used with ambulatory patient populations and quality measures across the Quintuple Aim (provider experience, patient experience, per capita cost, population health and health equity).

Strategies

National eHealth strategies: a comparative study of nine OECD health systems
BMC Health Services Research 25(1), 2025
BACKGROUND: The development of effective eHealth

strategies is critical to enhancing healthcare systems' efficiency and outcomes. However, there is limited comparative analysis of eHealth strategies across health systems, particularly in terms of their vision, objectives, implementation methods, and follow-up processes. This study compares the eHealth strategies of nine health systems, focusing on three key dimensions: vision and objectives, means to achieve objectives, and structures for follow-up.

Sustainability and the environment

Health Care and Climate Change—Telemedicine's Role in Environmental Stewardship
JAMA Network Open, 2023
The sheer magnitude of the climate change problem often results in decision paralysis. With telemedicine as an example, the study by Patel et al reminds us that individuals and institutions can still make a substantial impact on our health care system's carbon footprint.

Estimated Carbon Emissions Savings With Shifts From In-Person Visits to Telemedicine for Patients With Cancer
JAME Network Open 6(1), 2023
While the health care community advocates broadly for climate change policy, medical professionals can look within care practices to assess their contribution to carbon dioxide (CO2) emissions, and provide solutions wherever possible. Telemedicine can help in mitigating climate change by providing care from a distance.

Very rapid decarbonization of primary care: could learning from COVID pandemic help us prepare?
Family Practice 41(4), 2023
The COVID pandemic, as a threat which emerged from nature, highlighted the interdependence between the environment and

human health and society. Our response to the pandemic has transformed healthcare and this transformation provides potentially valuable lessons for those looking to meet climate targets.

Action plan for the mitigation of greenhouse gas emissions in the hospital-based health care of the Hellenic Army
Environmental Monitoring and Assessment 194(3), 2022
Significant emission reduction potential could also be achieved by the replacement of face-to-face hospital visits by telemedicine, primarily by reducing transport-associated emissions.

Does telemedicine reduce the carbon footprint of healthcare?: a systematic review.
Future Healthcare Journal 8(1), 2021
The carbon footprint savings range between 0.70–372 kg CO2e per consultation. However, these values are highly context specific. The carbon emissions produced from the use of the telemedicine systems themselves were found to be very low in comparison to emissions saved from travel reductions. This could have wide implications in reducing the carbon footprint of healthcare services globally.

Impact of a University-Based Outpatient Telemedicine Program on Time Savings, Travel Costs, and Environmental Pollutants
Value Health 30(4), 2017
There were 19,246 consultations identified among 11,281 unique patients. Telemedicine visits resulted in a total travel distance savings of 5,345,602 miles, a total travel time savings of 4,708,891 minutes or 8.96 years, and a total direct travel cost savings of $2,882,056. Telemedicine consultations resulted in a total emissions savings of 1969 metric tons of CO2, 50 metric tons of CO, 3.7 metric tons of NOx, and 5.5 metric tons of volatile organic compounds.

Workforce and service user perspectives

How do consumers prefer their care delivered: In-person, telephone or videoconference?
Journal of Telemedicine and Telecare 30(10), 2023
Aim: To gain a better understanding of consumer experiences with and preferences for telephone and videoconference consultations (telehealth), and how these compare to traditional in-person consultations.

Patient satisfaction with a virtual multidisciplinary team balance clinic: a pilot study Abstract only*
British Journal of Healthcare Management 29(1), 2023
Background/Aims: The COVID-19 pandemic led to many services being conducted remotely, including ear, nose and throat services. Although much in-person activity has now resumed, some services are still being provided remotely. This pilot study explored patients' satisfaction with the virtual multidisciplinary team balance clinics established at the authors' practice, looking at the feasibility of continuing this model of service delivery in the future.

Digitalizing Specialist Smoking Cessation Support in Pregnancy: Views of Pregnant Smokers
Nicotine & Tobacco Research : Official Journal of the Society for Research on Nicotine and Tobacco 27(2), 2025
INTRODUCTION: Unsupported attempts to quit smoking during pregnancy have a low success rate. Chances of quitting successfully are higher with an interpersonal treatment program but there is low uptake of this in the United Kingdom. Delivering a pregnancy-specific treatment program digitally may provide an alternative treatment route. This study explored pregnant smokers' perceptions of barriers and facilitators to using digital cessation support, along with identifying modes of delivery and engagement enhancers.

Practitioner, patient and public views on the acceptability of mobile stroke units in England and Wales: A mixed methods study
PloS One 20(1), 2025
BACKGROUND: Evidence for Mobile Stroke Units (MSUs) demonstrates that onset to treatment times for intravenous thrombolysis can be reduced and access to mechanical thrombectomy might be improved. Despite growing use of MSUs internationally, to date there have been no studies in NHS England and NHS Wales exploring the acceptability of MSUs to clinicians, patient and public representatives and other key stakeholders, which are important when considering potential feasibility and implementation.

User Experience of a Bespoke Videoconferencing System for Web-Based Family Visitation for Patients in an Intensive Care Unit: 1-Year Cross-Sectional Survey of Nursing Staff
JMIR Human Factors 12, 2025
Objective: The aims of this study were (1) to report the experience of intensive care nursing staff using a bespoke videoconferencing system called ICU FamilyLink; (2) to examine the scenarios in which the nursing staff used the system; and (3) to assess the future use of videoconferencing systems to enhance communication with families.

Virtually the same, but remotely different: health professionals, parents and children's experiences of remote out-patient consultations
Rheumatology (Oxford, England), 2025
OBJECTIVE: To explore experiences, benefits and concerns associated with remote (telephone/video) consultations from the perspectives of children and young people with juvenile idiopathic arthritis (JIA), their parents, and health professionals

(HPs) who were members of a multidisciplinary team in a paediatric rheumatology setting.

Mental Health Professionals' Technology Usage and Attitudes Toward Digital Health for Psychosis: Comparative Cross-Sectional Survey Study
JMIR Mental Health 12, 2025
Background: Digital health technologies (DHTs) for psychosis have been developed and tested rapidly in recent years. However, research examining mental health professionals' views on the use of DHTs for people with psychosis is limited. Given the increased accessibility and availability of DHTs for psychosis, an up-to-date understanding of staff perception of DHTs for psychosis is warranted., Objective: In this study, we aimed to investigate mental health professionals' usage of technology and their perception of service users' technology usage; their views toward the use of DHTs for psychosis, including their concerns; and barriers for implementing DHTs in a mental health setting.

Telehealth autism diagnostic assessments with children, young people, and adults: qualitative interview study with England-wide multidisciplinary clinician: qualitative interview study with England-wide multidisciplinary health professionals
Journal of Medical Internet Research – Mental Health 9(7), 2023 e37901
METHODS: his study explored health professionals' experiences of and perspectives about conducting telehealth autism diagnostic assessments, including barriers and facilitators to this, during the COVID-19 pandemic; potential telehealth training and supervision needs of health professionals; how the quality and effectiveness of telehealth autism diagnostic services can be enhanced; and experiences of delivering postdiagnostic support remotely.

Older Adults' Satisfaction with Telemedicine During the COVID-19 Pandemic: A Systematic Review
Telemedicine and e-Health 29(1), 2023
Older adults were satisfied with telemedicine during the COVID-19 pandemic. Patients were in favor of telemedicine compared to in-person visits, but the evidence support for this preference was limited. Factors influencing satisfaction were identified and categorized under four main categories: system-related factors, patient-related factors, socioeconomic factors, and factors related to the nature of the medical intervention.

"It Took Away and Stripped a Part of Myself": Clinician Distress and Recommendations for Future Telepalliative Care Delivery in the Cancer Context
American Journal of Hospital & Palliative Medicine 40(2), 2023
Participants described multidimensional clinician distress as a primary experience in delivering telepalliative care during the COVD-19 surge, characterized by competing loyalties (e.g., institutional obligations, ethical obligations to patients, resentment and distrust of leadership) and feelings of disempowerment (e.g., guilt in providing subpar support, decisional regret, loss of identity as a provider).

Barriers and enablers to telehealth use by physiotherapists during the COVID-19 pandemic
Physiotherapy 7, 2023
The findings of this study suggest that the delivery of community and outpatient physiotherapy via telehealth during the COVID-19 pandemic was an initial challenge. Growing knowledge, confidence and ability to problem solve barriers enabled physiotherapists to move along the continuum of 'fear' to 'triumph' as the pandemic progressed.

Mothers' perspectives on the potential use of video-calling during early labour in the United Kingdom and Italy: A qualitative study
Women and Birth 36(4), 2023
Two themes emerged: 1) women's expectations of video-calls' content and features; 2) technological challenges and solutions. Mothers responded positively to the concept of video-calling in early labour. Receiving guidance, information on coping with pain and advice on timely access in early labour was perceived as key. Women highlighted the importance of accessible, reliable and user-friendly technology.

Virtual care and the impact of COVID-19 on nursing: A single centre evaluation.
Journal of Advanced Nursing 78(2), 2022
Virtual care and remote working were implemented to accommodate the restrictions imposed because of the pandemic. The benefits of these changes to nurses and patients support these being business as usual. However, clear policies are needed to ensure that nurses feel supported when working remotely and there are robust assessments in place to ensure virtual care is provided to patients who have access to the necessary technology.

Patients' experiences of, and engagement with, remote home monitoring services for COVID-19 patients: A rapid mixed-methods study
Health Expectations 25(5), 2022
Remote home monitoring models place responsibility on patients to self-manage symptoms in partnership with staff; yet, many patients required support and preferred human contact (especially for identifying problems). Caring burden and experiences of those living alone and barriers to engagement should be considered when designing and implementing remote home monitoring services.

Meaningful patient and public involvement in digital health innovation, implementation and evaluation: A systematic review
Health Expectations 25(4), 2022
PPI is largely viewed as valuable and essential in digital health innovation, but rarely practised. Several barriers exist for both innovators and patients, which currently limits the quality, frequency and duration of PPI in digital health innovation, although improvements have been made in the past decade.

Digital Technologies and the Role of Health Care Professionals: Scoping Review Exploring Nurses' Skills in the Digital Era and in the Light of the COVID-19 Pandemic
JMIR Nursing 5(1), 2022
Further advancing nurses' readiness in adopting telemedicine requires an integrated approach, including combination of technical knowledge, management abilities, soft skills, and communication skills.

Parent/Caregiver Views of the Effectiveness of Speech-Language Pathology for Children Born With Cleft Palate Delivered via Telemedicine During COVID-19
Language, Speech, and Hearing Services in Schools 53(2), 2022
Most parents reported that they felt SLP delivered via telemedicine during the first few months of the COVID-19 pandemic in the UK was at least "somewhat effective." It is important to interpret this in the context of there being no other method of service delivery during this time and that this study only represents families who were able to access SLP delivered via telemedicine.

What Matters to Us: Impact of Telemedicine During the Pandemic in the Care of Patients With Sarcoma Across Scotland
JCO Global Oncology 7, 2021
Telemedicine in sarcoma care is favorable from both clinician and patient perspectives. Utilization of telemedicine for patients

with rare cancers such as sarcomas is an innovative approach to the delivery of care, especially considering the time and financial pressures on patients who often live a distance away from specialist centers. Patients and providers are keen to move toward a more flexible, mixed system of care.

Clinical effectiveness of and family experience with telephone consultation in a regional pediatric neurosurgery center in the United Kingdom
Journal of Neurosurgery 28(4), 2021
The findings suggested that 1) new patients should be offered FTF appointments; 2) follow-up TCs should be offered to families when possible; and 3) clinicians should develop their skills in conducting TCs.

Women's experiences of a telemedicine abortion service (up to 12 weeks) implemented during the coronavirus (COVID-19) pandemic: a qualitative evaluation
BJOG 128(11), 2021
Novel study findings were three-fold: (1) participants valued the option of accessing abortion care via telemedicine and emphasised the benefits of providing a choice of telephone and in-person consultation to suit those with different life circumstances; (2) the quality of abortion care was enhanced by the telemedicine service in relation to access, comfort and flexibility, and ongoing telephone support; (3) participants described being comfortable with, and in some cases a preference for, not having an ultrasound scan.

Taming the chaos: NHS professionals' perspective of using video consulting during COVID-19 in Wales
BMJ Open Quality 10(4), 2021
This study provides evidence of general positivity, acceptance and the success of the VC service in Wales. Future research studies will now be able to explore and evaluate the

implementation methods used within this study, and investigate their effectiveness in being able to achieve better outcomes through VC.

Staff experience of rapid implementation of telemedicine: informing future service redesign. Abstract only*
British Journal of Healthcare Management 27(12), 2021
Remote consultations are an accepted medium for staff to deliver physiotherapy consultations. However, future development of telemedicine services must be informed by this experience and take staff experiences into consideration.

Use and impact of virtual primary care on quality and safety: The public's perspectives during the COVID-19 pandemic
Journal of Telemedicine and Telecare 30(2), 2021
Interest in future use was highest for telephone consultations (55.9%), patient-initiated digital services (56.1%), secure messaging systems (43.4%), online triage (35.1%), video consultations (37.0%) and chat consultations (30.1%), although significant variation was observed between countries and patient characteristics.

District nurses' views on and experiences with a telemedicine educational programme in palliative care. Abstract only*
Scandinavian Journal of Caring Sciences 34(4), 2020
The use of an inter-professional telemedicine educational programme to teach palliative care to district nurses is beneficial. However, programmes should be designed for interactivity and address varying educational needs. Key-nurse roles require managerial and IT support to optimise knowledge dissemination.

Telemedicine during COVID-19: a survey of Health Care Professionals' perceptions
Monaldi Archives for Chest Disease 90(4), 2020
The most common barrier in remote consultation was the

inability to access patient records raised by 37% of respondents. However, 73% of respondents felt that patients understood their medical condition and the instructions given to them over the phone, and 70% agreed that videoconference consultations would add to patients care. Telemedicine can be used for selected groups of patients in the post COVID-19 era, and the HCPs carrying that should have the sufficient experience and knowledge expected to operate these clinics.

[The infrastructure of telecare: implications for nursing tasks and the nurse-doctor relationship](#) Abstract only*
Sociology of Health & Illness 41(1), 2019
The article explores how relational infrastructures ascribe the professions they constitute (nurses and doctors) functions of power and accountability and highlights the ethical problem of the nurse being given greater responsibility while simultaneously becoming more dependent on the doctor.

Competency Frameworks

[Defining core competencies for telehealth in healthcare higher education: A Delphi study](#)
Musculoskeletal Science and Practice 75, February 2025
While technology brings many opportunities for optimizing and improving health services, the lack of professionals trained in telehealth poses an important obstacle. Despite the existance of core competency frameworks for some healthcare professions, there is currently no consensus or guidelines on the core competencies that telehealth professionals should possess within the context of a higher education curriculum. This can hinder the potential benefits of healthcare service delivery.

[Collaborative practice competencies needed for telehealth delivery by health and social care professionals: a scoping review](#)
Journal of Interprofessional Care 38(2), 2024
In the context of the COVID-19 pandemic, many healthcare and social services professionals have had to provide services through virtual care. In the workplace, such professionals often need to be sufficiently resourced to collaborate and address collaborative care barriers in telehealth. We performed a scoping review to identify the competencies required to support interprofessional collaboration among clinicians in telehealth. We followed Arksey and O'Malley's and the Joanna Briggs Institute's methodological guidelines, including quantitative and qualitative peer-reviewed articles published between 2010 and 2021. We expanded our data sources by searching for any organization or experts in the field via Google.

[Core Capability framework for physiotherapists to deliver quality care via videoconferencing & telephone](#)
Melbourne School of Health Sciences, 2022
This framework was developed using a Delphi process to achieve expert consensus on what core capabilities are required of physiotherapists when delivering quality care via videoconferencing and telephone.

[Digital Capability Framework for Medicine](#)
Australian Medical Council Limited, 2021
The capability framework helps guide how medical education providers throughout the continuum of medical education can play a role in the development of a digitally capable medical workforce in Australia and New Zealand.

A Framework for Competencies for the Use of Mobile Technologies in Psychiatry and Medicine: Scoping Review
JMIR mHealth and uHealth 8(2), 2020
This framework borrows from existing competency framework domains in telepsychiatry and social media (patient care, medical knowledge, practice-based learning and improvement, systems-based practice, professionalism, and interpersonal skills and communication) and added domains of mHealth clinical decision support, device/technology assessment/selection, and information flow management across an electronic health record platform.

A Digitally Competent Health Workforce: Scoping Review of Educational Frameworks.
Journal of Medical Internet Research 22(11), 2020
Digital health training initiatives should focus on competencies relevant to a particular health care worker group, role, level of seniority, and setting. The findings from this review can inform and guide digital health training initiatives. The most prevalent competency domains identified represent essential interprofessional competencies to be incorporated into health care workers' training.

It's not just FaceTime: core competencies for the Medical Virtualist
BMC Intenrational Journal of Emergency Medicine 12(8), 2019
Every passing year sees more use cases of virtual care described—the once sporadic use of the virtual medium by organizations and their clinicians is becoming ubiquitous. This movement of the practice of medicine into a new sphere of virtual care will require a large cohort of clinicians to practice as medical virtualists on a fulltime basis or be acquainted with the medium and qualified to practice for periodic use.

The Need to Implement and Evaluate Telehealth Competency Frameworks to Ensure Quality Care across Behavioral Health Professions
Academic Psychiatry, 2018
Much more input is needed from various stakeholders, including the leadership of intraprofessional and interprofessional boards and accreditation bodies, to move toward consensus

A Framework of Interprofessional Telebehavioral Health Competencies: Implementation and Challenges Moving Forward
Academic Psychiatry 42, 2018
Interprofessional telebehavioral health (TBH) competencies have been developed to standardize training and improve the quality of TBH care. The seven identified interprofessional TBH competency domains and three levels of expertise (novice, proficient, and authority) are briefly described. More in depth descriptions and examples of several of the competency domains are presented to illustrate what the competencies look like in practice. Some of the challenges faced in using such a competency framework are discussed.