

Medical Evolution

Measures to improve the interface between
primary and secondary care

Dr David Landau and Dr Sean Phillips



Medical Evolution

Measures to improve the interface
between primary and secondary care

Dr David Landau and Dr Sean Phillips



Policy Exchange is the UK's leading think tank. We are an independent, non-partisan educational charity whose mission is to develop and promote new policy ideas that will deliver better public services, a stronger society and a more dynamic economy.

Policy Exchange is committed to an evidence-based approach to policy development and retains copyright and full editorial control over all its written research. We work in partnership with academics and other experts and commission major studies involving thorough empirical research of alternative policy outcomes. We believe that the policy experience of other countries offers important lessons for government in the UK. We also believe that government has much to learn from business and the voluntary sector.

Registered charity no: 1096300.

Trustees

Alexander Downer, Pamela Dow, Andrew Feldman, David Harding, Patricia Hodgson, Greta Jones, Andrew Law, Charlotte Metcalf, David Ord, Roger Orf, Andrew Roberts, Robert Rosenkranz, William Salomon, Peter Wall, Simon Wolfson, Nigel Wright.

About the Authors

Dr David Landau MBBS MRCP FRCR is a Clinical Oncologist, working formerly at Guys and St Thomas NHS Foundation Trust. He joined Policy Exchange as a Senior Fellow in January 2022. Whilst practicing, David held honorary Senior Lecturer posts at Kings College London and University College London. His main areas of research were lung cancer treatment, high-tech radiotherapy delivery and imaging science. He has been a lead and co-investigator on large and successful grant proposals to CRUK, the DoH and the EPSRC and successfully led local and national clinical trials. He was a founding medical consultant to Vision RT, a successful UK medical start-up company and a founding partner of LOC, a private oncology clinic.

Dr Sean Phillips is Head of Health and Social Care at Policy Exchange. He was previously a Research Fellow, co-authoring reports on expanding medical school places, vaccination policy, measures to tackle backlogs in elective care, reforms to general practice, clinical research and the future for specialised services. During this period, the Unit's work was awarded 'Health, science and medicine' think-tank of the year by *Prospect Magazine*. Prior to joining Policy Exchange, he completed a doctorate in History at the University of Oxford. He previously lived in Berlin, where he worked as a consultant on matters relating to digital health and emergent technologies in healthcare.

© Policy Exchange 2023

Published by
Policy Exchange, 1 Old Queen Street, Westminster, London SW1H 9JA

www.policyexchange.org.uk

ISBN: 978-1-910812

Health & Social Care at Policy Exchange

Policy Exchange is an independent, non-partisan educational charity which seeks new policy ideas to deliver better public services, a stronger society, and a more dynamic economy. The Health and Social Care Unit at Policy Exchange looks to tackle the most pressing questions facing the NHS and social care sector today and looks to ensure that the needs of consumers are placed at the forefront of the national conversation.

Some of our recent output includes:

- [Double Vision](#) – Developed a detailed and costed roadmap to enable 15,000 medical students a year to enrol on courses in England by 2029.
- [A Fresh Shot](#) – Considered the future for vaccines policy in England, setting out fifteen recommendations to reverse the decline to ensure the UK remains a world-leader in vaccine development and delivery.
- [What Do We Want from the Next Prime Minister?](#) – A manifesto for the new Prime Minister setting out sixteen policy ideas for health and social care: eight focused upon the current pressures concerning access to services; eight looking to place the NHS on a sustainable longer-term footing.
- [Devolve to Evolve?](#) – A series of proposals to reform NHS specialised services within integrated care, calling for more logical service groupings, an expanded role for patient and carer input, and stronger ministerial and financial oversight.
- [At Your Service](#) – A proposal to reform general practice in England, with the introduction of a new unified front door for users called ‘NHS Gateway’.
- [Realising the Research Effect](#) – A long-read outlining opportunities to boost clinical research activity in the NHS.
- [A Wait on Your Mind](#) – An assessment of the policy responses required to address the waiting list for elective care in England, setting out a series of practical proposals to address unknown clinical risks, and to introduce greater ‘operational transparency’ to support patients waiting for diagnosis or further care.

Endorsements

“This report builds on the findings of Healthwatch research on how delays to referrals and poor health system processes affect people, and further develops proposals for change. In particular, our work highlighted that the lack of data on referrals means that we don’t know for sure how many people are currently on a hidden waiting list. The recommendation for NHS England to publish incomplete referral data would help address this. Similarly, this report backs up our calls for improvements to online referral tracking systems to ensure patients can track the status of their referral from the point it is made, as well as encouraging two-way online communication systems to help patients feel supported and heard. I hope this report helps to build a consensus in the health sector about the need for improvement in people’s experiences going between services, where many currently fall through the cracks.”

Louise Ansari, Chief Executive, Healthwatch England

“This is a significant and wide-ranging report from Policy Exchange which includes both a series of shorter-term practical measures, building on the Government’s recovery plan for primary care, and a bolder, longer-term vision for improved coordination between primary and secondary care. I fully support their call for a patient-centred approach to service re-design and the development of a ‘patient tracker’, building on the My Planned Care platform which would put more information in the hands of service users. The proposals to boost clinical research activity across primary and community care – such as through the development of an Academic Primary Care Research Accelerator – are particularly welcome and ought to be seriously considered by policymakers.”

Lord Bethell of Romford, Parliamentary Under-Secretary of State for Innovation (2020-2021)

“Everybody acknowledges that demographic changes and financial pressures necessitate deep thinking about how NHS services can be effectively and sustainably delivered in the years ahead. This hinges on measures which can enable a wider range of services to be delivered out of hospital. This is a significant challenge, but the proposals set out by Policy Exchange in this report – which encourage a focus on the proactive management of the interface between primary and secondary care – will be a key piece of the puzzle. Their recommendations ought to be examined closely – and their focus on workforce innovation and measures to boost clinical research in primary care have my full support.”

Lord Carter of Coles

“Policy Exchange have produced a thoughtful and thorough contribution to a long-standing, but vital debate about how NHS services are delivered in the future: how do we shift care closer to people’s homes by expanding the provision of primary and community care, whilst driving effective, integrated care to deliver on the triple aim of improved outcomes, population health and reduced costs? Healthcare leaders across the world and politicians of all stripes have grappled with these questions for many years, but finding the right policy levers to deliver on the vision has proven more challenging.

The authors rightly recognise the growing significance of the primary-secondary interface to delivering on this promise and they are surely right to stress a need for a more dedicated focus on its management. Their combination of recommendations which encompass practical, short-term measures such as making shared referral pathways standard-practice and improving the current e-referral system can help to improve working cultures and communication between providers. Their longer-term vision meanwhile, which seeks to enable healthcare professionals to train & work across settings more easily and to specialise in interface medicine is novel; their recommendations which look to ‘mainstream’ high-quality research activity in primary care is also especially welcome. In sum, these are proposals which ought to be carefully considered by healthcare leaders and policy experts in the years to come”

The Rt Hon Lord Hunt of Kings Heath PC OBE

“Speaking to our member organisations, we hear all too often that primary and secondary care feel disconnected, leaving patients unclear as to who is responsible for their care or what their next steps for treatment will be. This timely report from Policy Exchange recognises the importance patients place on services working together to provide a seamless experience, with access to specialist care delivered swiftly and in a convenient way.

The recommendation to boost transparency over referral decisions would provide more patients with certainty about their care. Similarly, the plan to make clinical research routine practice across primary care would help people get faster access to the most cutting-edge treatments. These proposals feel practical, achievable and would help improve the NHS for both patients and staff.”

Jacob Lant, Chief Executive, National Voices

“I welcome this new report from Policy Exchange. As it rightly states, the interface between primary and secondary care is becoming increasingly complex, and requires a dedicated approach. This will require ‘whole systems’ to maximise resources to meet the needs of communities. Alongside doctors, nurses and allied health professionals, I am pleased to see that pharmacists are central to this vision.

Whilst there are welcome measures suggested here to reduce fragmentation in care, the proposals to minimise patient risk at discharge from hospital have particular significance for me. A call to optimise the use of the Discharge Medicines Service (DMS) by reducing variability in its use; and recommendations to enable secondary care to more routinely prescribe, reducing demand upon general practice are welcome.

Looking to the longer term, enabling healthcare professionals to gain greater experience working across provider settings and to formalise the idea of interface working as a speciality in its own right are suggestions worthy of serious consideration by policymakers in the years ahead”

Taiwo Owatemi MP; Member, Health and Social Care Select Committee; Chair, All-Party Pharmacy Group

“Policy Exchange’s timely report sets out numerous pragmatic solutions and recognises the importance of pharmacy in efforts to improve the primary and secondary care interface. Despite the Discharge Medicines Service (DMS) proving its worth in reducing readmissions, patients across England continue to face a postcode lottery. Improved patient outcomes around the transfer of care need a DMS which is embedded into everyday practice. It’s now time to truly harness pharmacists’ skills as experts in medicines at the primary-secondary care interface”.

Dr Nick Thayer, Head of Policy, The Company Chemists’ Association

Contents

About the Authors	2
Health & Social Care at Policy Exchange	4
Endorsements	5
Executive Summary	9
Summary of Recommendations	13
A Roadmap of Delivery	20
Introduction	21
Chapter 1 – Interface Issues	25
Chapter 2 – Back to the Future? Efforts and Evidence for Improving the Interface	36
Chapter 3 – The Future of the Primary-Secondary Interface	53
Conclusion	79
Appendix	81

Executive Summary

The ‘interface’ between primary and secondary care is a long-standing and natural feature of NHS care. A well-functioning interface enables the efficient coordination of care between providers (such as a GP practice and a hospital) and acts as a fair means of managing demand and costs.

Whilst clinicians have long sought to enhance working across the primary-secondary interface, these issues have become increasingly pronounced in recent years, with the interface too often functioning poorly, with delay, frustration and clinical compromise resulting. This should be all the more concerning, given it is the site of increasing patient volumes and a widening variety of activities, ranging from referrals to diagnostic tests, screening, cancer follow-ups, medicines optimisation and much more.

Recent polling from Healthwatch England shows that a fifth of patients referred by a GP for consultant-led care end up in a ‘referral black hole’, with more than two million patients each year having to make four or more visits to their GP before a referral is accepted.¹ **We estimate that as many as 150,000 patients could be on a ‘hidden’ waiting list.** This means that GPs are managing greater clinical risk and a greater number of patients whose conditions are often worsening in primary care, whilst communication between providers and access to diagnostics are often not up to scratch.

We estimate that at least 15 million GP appointments per year are dedicated exclusively to managing issues with the breakdown of this interface. Too many patients feel shunted from pillar to post, unclear as to who is responsible for their care. As well as poorer outcomes for the patient, inter-professional relationships and morale are also negatively impacted.

Healthcare professionals have long recognised the significance of optimising work across the interface, and it has “long been a fulcrum” of how the NHS delivers care.² Weaknesses elsewhere can also negatively impact interface working: inadequate resource for research in primary care; regulatory barriers to combined care in the community; and an educational culture, beginning from medical school, which too often creates a negative view of work in primary care settings, compared to that which is hospital-based. Focus on the interface offers the possibility to correct these weaknesses, with the potential to positively impact NHS performance at large.

We therefore consider the primary-secondary interface to be a significant and distinct space in which to target reform. This report

1. ‘Referrals black hole’ new findings of people’s experiences of GP referrals, *Healthwatch England*, 16 February 2023 [\[link\]](#); K. Lay, ‘Over two million patients have to visit GP four times for referral’, *The Times*, 11 April 2023 [\[link\]](#)
2. ‘Hearing each other’, *The Doctor*, 19 August 2022 [\[link\]](#)

considers how improved flows of information and expertise can better support growing demand in general practice; reduce unwarranted variation in service provision; enhance care coordination – particularly for those referred for elective procedures; enable opportunities to boost generalist medical skills for a new generation of doctors; and create opportunities for hospital specialists to deliver a greater proportion of care in primary or community care settings, reducing waiting times and the use of more expensive settings for care.

The case for change is strong – and in many respects change is already underway – with the NHS increasingly orienting funding, incentives and structures toward improved provider and professional collaboration through provider collaboratives and integrated care partnerships (ICPs) and boards (ICBs). Enabling more effective integration between general practice and other community services is likely to be an aim of the next GP contract.³

Despite this impetus, we have so far largely reverse engineered integrated care: building the system architecture and passing the legislation, whilst the cultural and contractual enablers of change require greater attention for the benefits to be fully realised. The reform of structures can enable closer working, but so too can enhancing existing routes of communication between professionals and ultimately, improved interface working will rely upon the development of relationships across ‘Neighbourhoods’ or ‘Places’ and a willingness to adapt working practices. We recognise that cultural and relationship-based considerations may be just as significant in driving change as the other factors discussed here.

There is however a critical role for Government to play in encouraging the proactive management of the interface to the benefit of both primary and secondary care. **We encourage the development of a joint DHSC-NHSE programme, reporting directly to ministers, and drawing upon user perspectives, which is tasked with identifying the key areas where national-level interventions can optimise interface working.**⁴ This should look to explicitly build on commitments set out in the recent *Delivery plan for recovering access to GP services*. We recommend enhancements to the Electronic Prescription Service and Discharge Medicines Service to optimise the role of community pharmacy and to reduce bureaucratic demands on GPs; high-quality messaging and image sharing capabilities should be rolled out universally to optimise ‘specialist input’ in referrals (via the eReferral Service); Systems should encourage providers to create Shared Referral Pathways as standard practice, and should become proactive in identifying the pathways or specialities which will most benefit from greater community sub-specialisation. The Academy of Medical Royal College’s recent report, *General practice and secondary care: Working better together* includes over fifty case studies which have been locally implemented – the vast majority have national applicability.⁵

Developing a cadre of clinicians with a remit and ability to operate within and across the interface will be a key component in enabling a more active approach to the management of the primary-secondary interface.

3. E. Philpotts, ‘NHS England official sets out GP contract priorities after five-year deal’, *GP Online*, 10 March 2023 [\[link\]](#)

4. Delivery plan for recovering access to primary care, *Department of Health & Social Care*, May 2023 [\[link\]](#)

5. General practice and secondary care: Working better together, *Academy of Medical Royal Colleges*, March 2023 [\[link\]](#); Better integration between primary and secondary care: Examples of good practice, *NHS England – Right Care*, June 2017 [\[link\]](#)

We therefore recommend the development of interface medicine as a distinct clinical sub-speciality and the development of new roles: ‘interface specialists’.

A range of roles which enable cross-provider working already exist – from GPs with Extended Roles, to pharmacist clinical integration leads. Community-based work meanwhile is already undertaken by consultants in some specialties, such as palliative care, but most doctors do not routinely work outside of hospital settings. This however used to be far more commonplace, but has diminished as professionals have increasingly specialised. Reform should enable doctors, nurses or pharmacists with appropriate skills to be simultaneously part of hospital specialist teams and to work within a primary care network (ideally a single GP practice) or community provider.

A doctor, working as an interface specialist would have developed genuine hospital specialist skills and a sub-specialty in community medicine within that specialty. The role could also suit GPs, who would be able to provide their own ‘specialist input’ in discharge planning and to provide ‘collaborative continuity’. We call for the merger of the medical register, so that GPs are recognised as specialists in their own right. Future clinicians should be specially trained in the role. For now, existing GPs and hospital specialists should be encouraged to further their training through Royal College guidance.

The aim of a new set of interface specialist roles is to offer maximum flexibility in the design of end-to-end pathways and to enable greater professional porousness.⁶ In the context of wider system reform, these developments may be thought of as a reform to the DNA and trunk of medical care which can impact a multitude of phenotypes and branches across the health system. These are principles and opportunities which ought to be reflected in NHS England’s forthcoming long-term workforce plan, and **a scheme to develop (and to evaluate) the impact of interface specialist roles should be established and piloted across at ICS level in the next two years.**

The enhancement of clinical research activity across primary and community settings is central to our vision for improved interface working, and we regard it as a longer-term, high-impact enabler, defined as a means of boosting the attractiveness of primary and community settings for those looking to pursue scientific research and as a means of enabling greater adoption of cutting-edge treatments and technologies.

Building on the welcome recommendations made by Lord O’Shaughnessy in his recent review of the UK’s approach to clinical trials – which includes greater incentives for GPs to enrol patients and a greater focus on encouraging primary care networks to use their scale to boost research activity – we encourage two further developments: **incentivising Academic Health Science Centres (AHSCs) to prioritise high-quality clinical research activity in primary care and community settings and the development of a new Academic Primary Care Accelerator scheme** - jointly funded by a coalition of partners including Arms-Length Bodies

6. Next steps for integrating primary care: Fuller stocktake report, NHS England, 26 May 2022 [\[link\]](#)

responsible for funding medical research as well as organisations from the life sciences sector – to enable GP practices to apply for additional funding to operate predominantly as academic units, with the aim that they are staffed by a research workforce across allied professions.⁷

Building on the package of reforms encouraged in a report we co-authored last year, entitled *At Your Service* – which proposed supporting general practice services ‘at scale’ – all the measures set out in this report are achievable within current structures (and based upon the existing employment status of staff) across primary and secondary care in England. A roadmap for delivery is included following the Summary of Recommendations.⁸

7. C. Smyth, ‘Bonus for GPs if patients join trials in plan to lure firms to NHS’, *The Times*, 24 May 2023 [[link](#)]
8. S. Phillips, R. Ede & D. Landau, *At Your Service: A proposal to reform general practice and enable digital healthcare at scale*, *Policy Exchange*, 4 March 2022 [[link](#)]

Summary of Recommendations

National Strategy

The Department of Health and Social Care (DHSC) and NHS England (NHSE) should establish an Interface Improvement Initiative. A small ‘joint committee’ of officials, overseen by ministers, should be tasked with overseeing the implementation of national and system-level interface initiatives and with identifying national-level high-impact measures which can improve interface working. Their work should integrate patient / user involvement to address real-world issues and frustrations. Some of these measures could include:

1. Improving communication capabilities so clinicians to correspond with one another and their patients seamlessly.
 - a. **The e-Referral Service (eRS) should become a more open and innovative platform.** Focus from NHSE should be on creating an effective ‘data layer’ from which applications can more seamlessly ‘plug and play’, enabling providers to be effectively reimbursed. Primary and secondary care providers (and their tech suppliers) should focus on improving the ‘application layer’ so they become more user-friendly, less “clunky” and can deliver communications which are high-quality and efficient.
 - b. **The Digital Care Services catalogue should be adapted** to encourage greater innovation in the delivery of digital communication capabilities for interface working. As a minimum, solutions should:⁹
 - i. Enable clinician-to-patient and clinician-to-clinician messaging, reminders to be scheduled and include image sharing and video consultation capabilities.
 - ii. Allow hospital staff to book patients directly for investigations across relevant primary care and community provider settings (patient’s GP practice informed but would not necessarily lead on booking).
 - iii. Integrate with the NHS Service Finder to ensure seamless and direct clinician-clinician communication.¹⁰
 - c. **The NHS App and provider websites should be enhanced to provide more effective ‘back channels’ for clinicians to be able to communicate.**
 - d. **NHS hospital trust websites – in particular – should include**

9. Digital Services Catalogue, NHS Digital [\[link\]](#)

10. NHS Service finder [\[link\]](#)

more effective ‘directories’ of the services, personnel and expertise available so that – for instance – GPs are able to more swiftly draw upon ‘specialist input’ or to communicate with the correct personnel.

2. **Explore opportunities for patients with certain long-term or chronic conditions, to self-refer (back) to specialist services, building on the Patient-Initiated Follow Up (PIFU) approach.**
3. **Commit to boost transparency for patients as their care is managed across the interface by enabling patients to ‘track’ who is responsible for their care when they are being supported by a number of different providers.**
 - a. Additions to the ‘My Planned Care’ platform (available via the NHS App) for instance - should allow patients to see the contact information for those responsible for their care once they have been referred by a GP. This information should be updated in real-time and should include clear point(s) of contact.
 - b. This should be regarded as a means of improving how the NHS explains to patients *where* they are in the process too. This has particular relevance for people at risk of digital exclusion who may not be able to ‘self-track’ in the way envisaged above.
4. **Publish guidance to optimise the use of Advice and Guidance (A&G), reducing inconsistencies between hospital trusts and departments within hospitals and providing greater transparency to patients over how it is used by clinicians to generate referral decisions.**
5. **Support the implementation of the Booking and Referral Standard (BaRS) across the NHS and encourage trusts to universally adopt The Professional Records Standards Body e-Discharge standard, endorsed by the Royal Colleges.** (The Standard enables hospitals to safely transfer standardised clinical information using headings and coded data onto GP IT systems when a patient is discharged from hospital care).¹¹
6. **Boost uptake and optimise use of the Discharge Medicines Service (DMS) to reduce patient safety risk at transfers of care and to reduce patient readmissions to hospital.**
 - a. NHSE should develop guidance which clarifies a set of objective criteria for patients eligible to use the service, with the aim of reducing local variability and to enable more effective messaging to the public (and professions). The aim should be to make this a standard part of the discharge process.
 - b. Tackle the ‘information gap’: a significant amount of manual process is still required to use the service, so developing means to automate the service as far as possible will deliver efficiencies.
 - c. Pharmacies should be able to ‘pre-register’ patients, as has been introduced in Wales.¹²

11. Electronic discharge summary within 24 hours, Royal College of Paediatrics and Child Health [Accessed 15/6/2023] [\[link\]](#)

12. Discharges Medicine Review, Community Pharmacy Wales, 1 February 2022 [\[link\]](#)

- d. Information should be fed back to GP practices, whilst community pharmacy/or GP pharmacists should be notified that a routine polypharmacy assessment for discharged patients ought to be scheduled.
7. **Compile and publish ‘incomplete referral’ data at national, ICS and trust levels.** Further to the recent addition of Community Health Services waiting times data, data relating to incomplete referrals should be published on a monthly basis to enable improved monitoring of pathways and to better target support. This measure seeks to reduce the prevalence of ‘hidden’ waiting lists.¹³
8. **Introduce new incentivises to enable greater uptake of clinical decision support systems (CDSSs) across general practice.** To enable this, effective integration with Electronic Patient Records is required, alongside closer collaboration with Royal Colleges and other key stakeholders to define best practice in their use.¹⁴ Public information about the use of CDSSs should also be improved to boost patient confidence. The Transformation Directorate within NHSE should work closely with the Multi-Agency Advisory Service to identify tools for ‘national accreditation’ to scale the best quality CDSSs.

Beyond measures taken at a national level, changes are required at all levels of the NHS system, as follows.

At system level:

9. Beyond the commitment to report to NHSE this Autumn on progress in implementing initiatives included in the recent Academy of Medical Royal College document, *General practice and secondary care: Working better together*, **ICSSs should report annually on progress in improving interface working.**
10. The siloed nature of prescribing budgets across settings limits the role secondary care plays in issuing prescriptions directly and increases workloads upon general practice. **Integrated Care Systems (ICSSs) should work with the NHS Business Authority to enable greater use of joint prescribing budgets to enable hospital staff to issue prescriptions directly (particularly in cases where a consultant has a detailed understanding of relevant medication). Changes to the Electronic Prescription Service should be made to enable this.**
11. **Integrated Care Boards (ICBs) should encourage the development of Interface Working Groups (where they do not already exist).** These groups should bring together stakeholders from across primary, secondary, and community care to analyse referral activity and to develop tailored ‘referral support’ across their populations.¹⁵ The development of groups across Scotland’s

13. R. Sampson, R. MacVicar & P. Wilson, ‘Improving the primary-secondary care interface in Scotland: a qualitative exploration of impact on clinicians of an educational complex intervention’, *British Medical Journal*, Vol. 7, No. 6 (2017) [\[link\]](#)

14. T. Porat, B. Delaney & O. Kostopoulou, ‘The impact of a diagnostic decision support system on the consultation: perceptions of GPs and patients’, *BMC Medical Informatics and Decision Making*, Vol. 17, No. 79 (2017) [\[link\]](#)

15. U. Ekwegh & J. Dean, ‘Improving care planning and communication for frail older persons across the primary-secondary care interface’ *Future Health Journal*, (October 2020) [\[link\]](#)

Health Boards shows how this may be done, whilst the recent publication of NHS Cheshire and Merseyside's Consensus Statement is an example of how responsibilities and improved working can be clarified.¹⁶

- a. 'Consensus statements' should be established, setting out clearly defined responsibilities for the management of patients across the interface, including the development of clinical thresholds (for instance) for referral.
- b. This report identifies many possible interventions, such as referral and referral pathway management, appropriate IT communication solutions, the development of community consultation for doctors, nurses and other professions, introduction of interface specialists. Each ICB must apply the best fit solution for each relevant problem and report on the outcome.

12. ICBs should support the development of 'community clinics' in specialities which can deliver the most significant returns (in value for money, improved waiting times for patients and in clinician & patient satisfaction).

- a. We foresee opportunities to commission outpatient clinics differently, with 'at scale' primary care providers well-suited to deliver clinics which enable consultant input alongside the work of GPs, nurse specialists and allied health professionals. Boosting such an approach should be considered as part of NHSEs forthcoming national outpatient strategy.
- b. NHSEs forthcoming National Community Nursing Plan should identify opportunities for community nursing to take on leadership roles in the development of novel interface working and in establishing new clinics 'in the community'.

13. A longer-term, strategic approach to capital investment in the primary care estate is critical, but in the near-term, greater use of void or vacant space across the NHS Property Services and Community Health Partnerships portfolio should be utilised for the purpose of developing the 'public estate' for community clinics and additional diagnostic services.¹⁷

- a. Property disposals could be one means of financing these developments in the near term. Recently, a total of 497 plots of land were declared as surplus or potentially surplus to requirements (by 115 Trusts and NHS Property Services).¹⁸ The development of estates to support improved interface working could form a part of the current 'Vacant Space Hand-back Scheme'.¹⁹
- b. Greater use of the wider healthcare-specific and public estate. Community pharmacy for instance offers registered, NHS-contracted premises.

16. Consensus on the Primary and Secondary Care Interface, *Cheshire and Merseyside Health and Care Partnership*, 30 June 2022 [\[link\]](#)

17. State of the Estate in 2020-2021, *Cabinet Office*, 9 November 2022 [\[link\]](#)

18. Ibid.

19. Property disposals, NHS Property Services, [Accessed 28/3/2023] [\[link\]](#); 'Hand back vacant space', *NHS Property Services* [\[link\]](#)

At neighbourhood and place levels:

- 14. Shared Referral Pathways (SRPs) should become commonplace across the NHS.** Drawing upon the successful implementation of SRPs in recent years – such as across cardiology at Mid Yorkshire Hospitals NHS Trust (MYHT) which proactively pools primary and secondary expertise as well as information (reflected in joined-up records and information for the patient) should become the default approach as a means of ensuring shared responsibility for patient care.²⁰
- 15. Trusts should work with primary care teams to reduce the ‘information gap’, by leveraging automated processes and ensuring staff focus on producing timely discharge reports (within 24h).** Recent research has shown that whilst most GPs are notified when patients have been seen in out-of-hours care (94%), on average, only 26% receive the information they need to continue managing care for the patient within 48 hours of discharge.²¹

Workforce

Interface medicine should be developed as a distinct sub-speciality across all specialties.

- 16. ‘Interface specialist’ positions should be developed across the medical workforce for doctors, nurses and pharmacists. The roles should first be piloted in the next 12-24 months.** To enable this:
- a. **Consultants should be enabled to contribute to interface medicine through the creation of dedicated job plans** which locate a proportion of their work ‘in the community’ or across providers.
 - b. **Royal Colleges should set up a joint working group/cluster to encourage adoption of ‘interface’ working as a sub-speciality.** This should include the development of courses and qualifications to support the training of GPs looking to specialise and join hospital teams and to support hospital specialists looking to take a deeper role in GP medicine.
 - c. **Medical, nursing and pharmacy training should provide junior professionals with greater opportunities to work across a variety of provider settings.**
 - i. Working across a range of providers should become a key feature of the Foundation Programme. Health Education England’s ‘Generalism Trailblazer’ represents a blueprint for how this may be achieved moving forward.
 - ii. Deaneries should consider measures to enable a greater number of rotations in general practice and community

20. B. Lawman, ‘The shared referral pathway at mid Yorkshire NHS: a joined-up approach’, *Hospital Times*, 6 July 2021 [\[link\]](#)

21. J. Beech, C. Fraser, T. Gardiner et al., ‘Stressed and overworked: What the Commonwealth Fund’s 2022 International Health Policy Survey of Primary Care Physicians in 10 Countries means for the UK’, *The Health Foundation* (March 2023) [\[link\]](#)

care for medical students and junior doctors right up to Certification of Completion of Training (further developing flexibility in training pathways via the Accreditation of Transferable Capabilities (ATC) and ‘Combined Programme’).²²

- iii. There will be an opportunity to learn from insights deriving from current HEE General Internal Medicine specialty pilots.²³
- iv. As GP practice-based specialist clinics develop they should form a core part of specialty training for medical students and junior doctors.
- v. Future developments to training pathways for pharmacists should consider the potential for a greater number of rotations across providers.
- vi. The range of medical schools offering Integrated Academic Training should be expanded in the coming years, aligning with a proposed expansion in overall medical school places (widely trailed to be a key part of the forthcoming long-term workforce plan from NHSE)

d. DHSC should work with Health Education England (HEE), the General Medical Council and Royal Colleges to enable the medical workforce to more easily work across provider settings. The aim should be to enable hospital specialists to more routinely practice ‘in the community’ and for GPs to practice more routinely in hospitals.

e. The present wide variation in the understanding and use of the term Advanced Clinical Practice in job specifications – particularly in nursing – should be reconciled. The Government should work with key stakeholders, including the Nursing & Midwifery Council to develop a standard competency framework for advanced or specialist nursing.

f. SAS doctors should be enabled to practice in primary care settings as interface specialists. The new interface role detailed above seeks to make effective use of range of specialist skills professionals possess. SAS doctors have significant clinical experience and specialist skills. Opportunities to deploy existing skills effectively in primary care settings should be explored, with pathways for SAS doctors to become interface specialists developed alongside a route to become a qualified GP if desired.

17. The Government should introduce amendments to the Medical Act 1983 to enable the General Medical Council (GMC) to recognise GPs as specialists in their own right. Currently there are two separate GMC registers for general practitioners and consultants.²⁴ The British Medical Association, Royal College of General Practitioners and GMC have all expressed support for a merger of medical registers into a single advanced medical register.

22. ‘Combined training’, *Royal College of General Practitioners* [\[link\]](#)

23. ‘General Internal Medicine specialty pilots launched by Health Education England’, *Health Education England*,

26 July 2022 [\[link\]](#)

24. ‘Specialist status for GPs delayed as legislative timetable slips’, *GP Online*, 22 April 2022 [\[link\]](#)

DHSC could announce this intention as part of its response to the 2021 consultation, *Regulating Healthcare Professionals*.²⁵

Clinical Research

18. The development of the Research Delivery Network later this year – whose work will map onto ICS borders – represents an important moment to consider how links between the National Institute for Health and Care Research (NIHR) (and its Clinical Research Networks (CRNs)), specialist centres and general practice within an ICS footprint can be enhanced.²⁶
 - a. The Government should prioritise actions set out in the recent NIHR primary care strategy.
 - b. In the coming months, the Government should incentivise NIHR CRNs (via ‘High Level Objective’ funding allocation increases) to proactively work with GP practices keen to develop their research activities.**²⁷ GP practices should be able to benefit from this funding uplift which could be (partially) drawn from any unused investment currently earmarked for the Additional Roles Reimbursement Scheme.²⁸
 - c. Beyond the recommendations set out in Recommendation 16c above relating to medical education, the NIHR should look to support Academic Clinical Fellowships which have a specific focus on advancing interface working.²⁹
 - d. There should be a focus on encouraging GPs to undertake the NIHR-Academy of Medical Royal Colleges Clinician Researcher Credentials Framework to enable an expansion of Collaborators, Co-Investigators or Principal Investigators (PI) for clinical research.³⁰
19. The Government should work with the NIHR to encourage Academic Health Science Centres (AHSCs) to develop a greater variety of studies, focussed on enhancing clinical research activity across primary care and community settings.
- 20. The Government should announce an Academic Primary Care Accelerator scheme.** This should be jointly funded by Arms-Length Bodies responsible for funding medical research as well as organisations from the life sciences sector – to enable GP practices (either individually or as collectives, such as GP Federations or Primary Care Collaboratives) to apply for additional funding to boost their operations as academic units, with the aim that they are staffed by a research workforce across all allied professions.
 - a. To build closer ties, each Accelerator should have formal affiliation to a Medical School.
 - b. A further aim of the scheme is to establish the potential value of ‘interface specialists’ and novel forms of interface working through rigorous prospective monitoring of their impact in everyday clinical practice.

25. Regulating healthcare professionals, protecting the public, *Department of Health and Social Care*, 24 March 2021 [[link](#)]

26. Clinical Research Network in England, UK *Clinical Research Collaboration* [[link](#)]

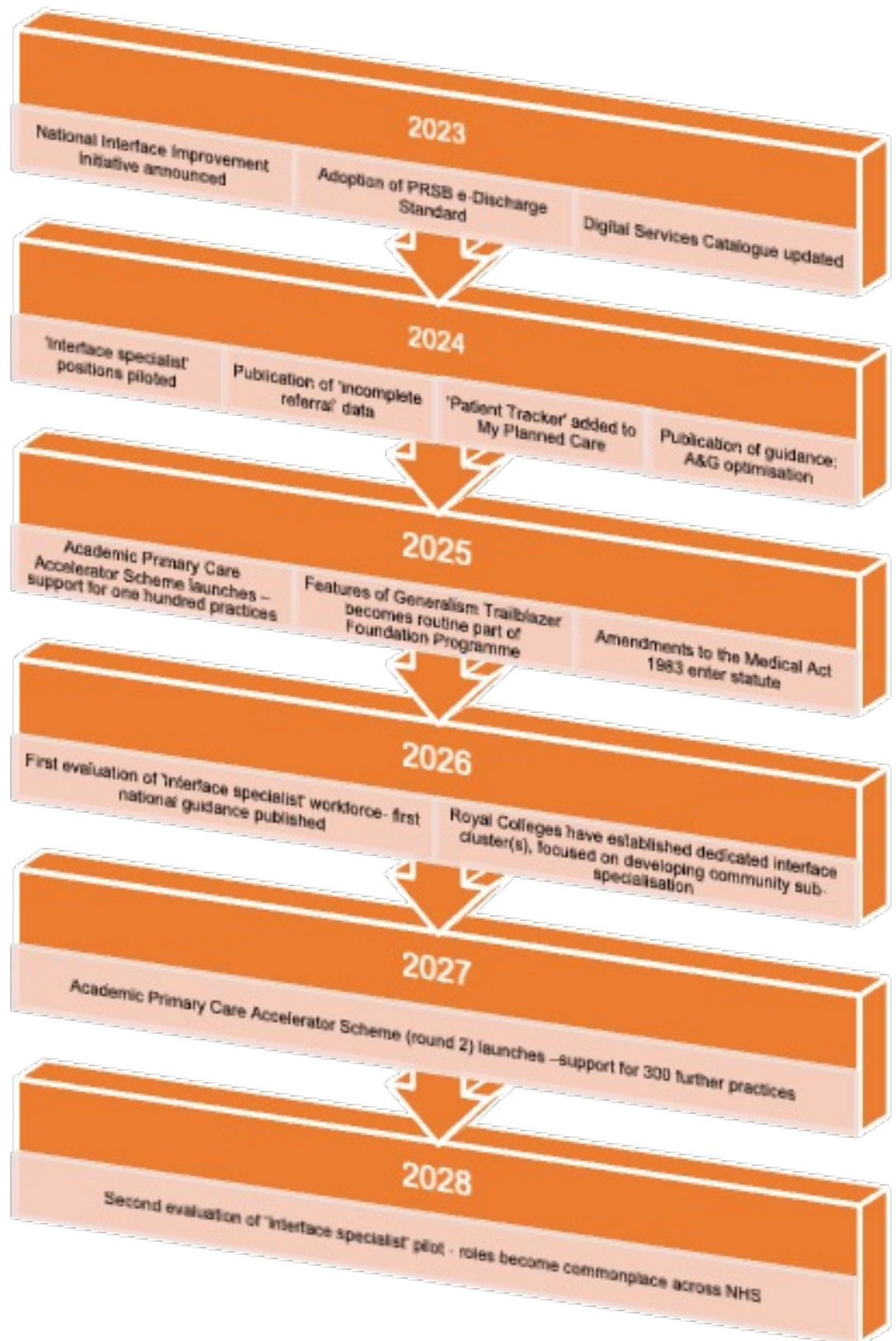
27. NIHR Local Clinical Research Network Funding Allocations 2020/21, *National Institute for Health and Care Research*, 11 August 2020 [[link](#)]

28. J. Hacker, ‘Revealed: Tens of millions of unspent ARRS funding to be lost to general practice’, *Pulse*, 2 February 2023 [[link](#)]

29. Integrated Academic Training, *National Institute for Health and Care Research* [Accessed 28/3/2023] [[link](#)]

30. ‘Become a Research Delivery Leader: the NIHR-AoMRC Clinician Researcher Credentials Framework’, *National Institute for Health and Care Research* [[link](#)]

A Roadmap of Delivery



Introduction

There is widespread recognition that a greater proportion of care will need to be delivered ‘out of hospital’ and across primary and community care settings in the coming years, driven by a higher volume of patients with long-term chronic conditions and multi-morbidity. This intention was clearly articulated in both NHS England’s 2019 NHS Long Term Plan and the national clinical strategy for health in Scotland, three years prior.³¹ These developments have significant implications for the NHS and raise a multitude of questions about future service design, models of care, estates development as well as career pathways and funding flows. In sum, these developments will substantially change how and where care is delivered, entailing an evolution in medical practice.

Yet previous studies – such as by the Nuffield Trust – have shown just how challenging it can be to seek to reduce key areas of hospital activity, such as outpatient care, whilst there is simultaneous growth in other areas, such as elective care.³² Other studies have shown that whilst moving patient care into the community may boost patient satisfaction, and may mean they are seen quicker, it may not necessarily reduce costs or improve quality of care.³³ “Shifting specialist care to primary care”, as one study puts in, “without equipping primary care professionals with the knowledge, skills and competences needed to deliver good quality care within an agreed service specification will result in demoralisation, reduced clinical engagement and outcomes that are not as good as expected.”³⁴

This report considers these wide-ranging questions about the future for healthcare delivery in England, and regards the interface between primary and secondary care to be a critical site to target reform.³⁵ This interface, which can be defined as the movement of patients to secondary care from primary care (such as a GP referral); activities occurring ‘in between’ with services receiving input from primary and secondary care (such as some diagnostic testing occurring in a community space); or the processes moving patients out of secondary care back into the community (e.g. medicines management at discharge from hospital).

The interface is, therefore, vital to ensuring that patients receive high-quality care, and that clinical and managerial resources are effectively deployed.³⁶ Yet there is significant disquiet about its present operation amid systemic pressures across the NHS. A former deputy chair of the BMA Council, Dr Chaand Nagpaul, has recently claimed it is creating “division, duplication, delays to care and wasteful workload...directly impacting the daily lives of patients and doctors in both general practice and hospitals.”³⁷ Too many patients feel they are being shunted from pillar to post, without clarity about who is responsible for their care as it is managed between different providers.

31. NHS Long Term Plan (2019) [[link](#)]; A National Clinical Strategy for Scotland (2016) [[link](#)].
32. C. Imison, N. Curry, H. Holder et al., ‘Shifting the balance of care’, *Nuffield Trust*, (March 2017) [[link](#)]
33. B. Sibbald, R. McDonald, M. Roland, ‘Shifting care from hospitals to the community: a review of the evidence on quality and efficiency’, *The Journal of Health Services Research and Policy*, Vol. 12, No. 2 (2007) [[link](#)]
34. H. Pinnock et al., ‘Is multidisciplinary teamwork the key? A qualitative study of the development of respiratory services in the UK’, *Journal of the Royal Society of Medicine*, Sep 1 2009 [[link](#)];
35. By way of example, see recent reviews from Spain: L. Esteve-Matalí, I. Vargas, E. Sánchez et al., ‘Do primary and secondary care doctors have a different experience and perception of cross-level clinical coordination? Results of a cross-sectional study in the Catalan National Health System’, *BMC Family Practice* 2020 [[link](#)]; M. Aller, I. Vargas, J. Coderch et al., “Doctors’ opinions on clinical coordination between primary and secondary care in the Catalan healthcare system”, *Gaceta Sanitaria*, Vol. 33, No. 1 (2019) [[link](#)] or from Australia: G Mitchell, C Young, T Janamian, K Beaver K, et al., ‘Factors affecting the embedding of integrated primary-secondary care into a health district’, *Australian Journal of Primary Health* (2020) [[link](#)]
36. ‘The Interface between primary and secondary care: Key messages for NHS clinicians and managers’, *National Health Service*, July 2017 [[link](#)]
37. ‘End the dysfunctional primary-secondary care interface to improve GP access’, *Pulse*, 23 November 2022 [[link](#)]

Box 1 – What is a medical “interface”?

As the Royal College of General Practitioners Scotland’s *Effective Interface Module* puts it: “the interface is the point of interaction between different systems...where a patient journey crosses from one area of care into another such as moving between primary and secondary care, between health and social care and between scheduled and unscheduled care. It is probably most usefully considered in a healthcare context in terms of the relationships, both organisational and interpersonal, that exist between these different systems.”³⁸

Whilst an ineffective interface may add to short-term and day-to-day challenges, such as sharing incorrect documentation or not reaching the right person on the first attempt for instance, real harm can also emerge from mistakes occurring at discharge from hospital, often occurring because of complications over medication management and ‘polypharmacy’. This necessitates additional effective cooperation with pharmacy services, as a key means of reducing hospital re-admission and reducing unplanned GP engagement in hospital discharge.

An ineffective interface also influences longer-term trajectories, such as a medical student’s decision to forego speciality training in general practice – perhaps due to a perception of unsustainable day-to-day clinical service pressure. Indeed, as of today, it remains the case that teaching, research, management, and medical leadership remain firmly located in acute (often hospital) care settings, with many primary and community care staff feeling that this seeming lack of parity has yet to be addressed.³⁹

Reflecting on the impact on the delivery of healthcare at large, Professor Roger Jones, a former editor of the *British Journal of General Practice*, has characterised the separation of GPs from hospital-based doctors as a ‘fault line’: “many of the problems, reorganisations, and costs that have befallen the NHS over the years have their roots in this professional fault line”, he states, “and, conversely, many real advances and innovations in patient care have involved breaking down barriers, and establishing inter-professional collaboration between specialists and generalists, often in partnership with community and third-sector services”.⁴⁰

Thirty to forty years ago, a greater mixing of specialisms was more commonplace.⁴¹ In the early days of the NHS, GP surgeries had regular visits from hospital doctors and the service was less reliant on referral-led activity which has now become the dominant framework.

Indeed, this has played its part in the development of greater clinical specialisation over time and resulted in calls to extend generalist medical skills across the workforce, such as in Professor David Greenaway’s ‘Shape of Training’ review which was published in 2013.⁴² A strengthened primary care system built upon expert generalism can – the evidence shows – deliver greater value for money and improve outcomes – particularly in the management of long-term conditions. The prize therefore, is to create the capacity for primary and community care to be able to effectively manage the greater volumes of care which would be more appropriately (and cost effectively) be managed in that part of the health system.⁴³

39. R. Jones, ‘Fault Lines’, *British Journal of General Practice* (2016) [\[link\]](#)

40. Ibid.

41. A. Goddard, Podcast, *British Medical Journal*, 24 March 2022 [\[link\]](#)

42. The specialist/generalist debate, *The Health Foundation*, 17 October 2011 [\[link\]](#). For the Greenaway Review, see: D. Greenway, ‘Securing the future of excellent patient care’, *The General Medical Council* (October 2013) [\[link\]](#)

43. B. Starfield, L. Shi & J. Macinko, ‘Contribution of primary care to health systems and health’, *Millbank Quarterly* (2005) [\[link\]](#)

38. [Effective interface: A module to assist GPs and consultant colleagues to identify and provide solutions to problems that exist at the primary/secondary care interface](#), *Royal College of General Practitioners* (January 2017) [\[link\]](#) (p. 2)

But this is not simply a question of service design and pursuing operational neatness. Interface issues matter significantly to service users. Patients may not deploy the language of ‘pathways’ or ‘interfaces’, but recent research from Healthwatch England finds that one in five respondents with a recent experience of a GP referral had fallen into what they termed a ‘referrals black hole’, impeding, and often delaying care.⁴⁴ Described as a “dangerous blind spot” for patients, two million patients every year – Healthwatch have found – visit their GP four or more times to secure a referral for planned care, with nearly one in three GP referrals not progressing to a hospital appointment due to a lack of ‘communication, choice, or administrative matters’, meaning there is a vast ‘hidden’ waiting list.⁴⁵

As Policy Exchange has previously explored in its research into the waiting list for elective care, long waits and delays don’t just result in poorer clinical outcomes, they also have a significant emotional and physical impact on those waiting for care, with uncertainty often stemming from poor communication producing significant dissatisfaction.⁴⁶ Whilst there may be an ‘information gap’ between the clinician referring and the one receiving the referral, it is also often the case that “... the patient may have a third view of the objectives” in which they frequently remain unclear about how their care is being managed, and who is responsible.⁴⁷

Partly in response to growing pressures upon primary care services, a growth in ‘self-referral’ to specialist care has been recommended, including in the most recent NHS England Operational Planning Guidance.⁴⁸ The recently-published *Delivery plan for recovering access to primary care* envisages up to 50% more patients self-referring by March 2024.⁴⁹ The Labour Party has also suggested expanding self-referral possibilities, building upon pathways which have already been established in physiotherapy, alcohol and drug treatment, smoking cessation and talking therapies.

These pronouncements have stimulated considerable debate amongst the medical profession – particularly GPs.⁵⁰ For some, self-referral fundamentally challenges the current general practice model of care and its ‘filtering’ or ‘gatekeeping’ role, underpinned by relationship-based care. Dr Martin Brunet has stated that the idea “makes as much sense as telling a patient with acute coronary syndrome to go on a brisk run around the hospital”. Whilst recognising the critique, Professor Dame Clare Gerada suggests there may be greater possibilities for self-referral to manage demand, but even in “randomised trials, there is not much evidence about whether going via the GP or direct to a specialist would lead to more referrals, whether patients would do better or worse with no gate, nor how wide an effective gate should be.”⁵¹

So, what should be done? Should we simply bolster the present system as the most effective means to adequately manage finite resources? Or is a new approach entirely required?

This report sets out a series of measures to improve the interface between primary and secondary care, making twenty recommendations in all, with applicability over both the short and longer term. We

44. ‘Referrals black hole’ new findings of people’s experiences of GP referrals, *Healthwatch*, 16 February 2023 [\[link\]](#)

45. GP referrals: we need to address the ‘hidden’ waiting list, *Healthwatch*, 5 April 2023 [\[link\]](#)

46. R. Mathew, ‘Long and uncertain waiting times are leading to poorer health outcomes’, *BMJ*, 1 November 2022 [\[link\]](#)

47. A. Coulter, A. M. Roland, *Hospital referrals* (Oxford, 1992), cited in N. Edwards, ‘The report of the Future Hospital Commission: first steps down the road to change?’, *Future Healthcare Journal*, (June 2014) [\[link\]](#)

48. See: 2023/34 priorities and operational planning guidance, *NHS England*, 23 December 2022 [\[link\]](#) Direct Access and self-referral has been encouraged for: community optometrists to

ophthalmology services (all urgent and elective eye consultations); self-referral routes to falls response services, musculoskeletal services, audiology-including hearing aid provision, weight management services, community podiatry, and wheelchair and community equipment services. (p. 9)

49. Delivery plan for recovering access to primary care, *NHS England*, 9 May 2023 [\[link\]](#)

50. Debate: Should we increase patients’ ability to self-refer to secondary care?, *Pulse Today*, 27 January 2023 [\[link\]](#)

51. Ibid.

consider the role of culture, communication tools, future models of care, training and workforce implications as well as other significant enablers, including estates development and contracting.⁵²

Central to our recommendations are proposals to innovate in workforce design through the creation of ‘interface specialists’ – new roles tailored to the clinical skills of doctors, nurses, pharmacists and allied health professionals, enabled to practice more routinely across a variety of settings and to actively manage care at the interface. We also propose a significant investment in clinical research activity across primary and community care settings as a means of evaluating new models of care and in order to scale cutting edge treatments and technologies more effectively.

The structure of the paper is as follows:

- **Chapter 1** – sets out the present issues impeding more effective interface working between primary and secondary care;
- **Chapter 2** – contains a literature review, detailing and evaluating previous attempts at interface reform and pathway innovation;
- **Chapter 3** – sets out a future vision for interface medicine, detailing implications for models of care and future training and workforce. It proposes the creation of new roles: interface specialists, and a significant expansion in clinical research activity across primary and community settings.

52. R. Jones, M. Newbold, J. Reilly et al., ‘The future of primary and secondary care’, *British Journal of General Practice* (2013) [[link](#)]

Chapter 1 – Interface Issues

There are numerous ‘interfaces’ across the NHS. Significant challenges with patient discharge from hospitals into social or community care settings is one example of issues at an interface which has been an unfortunate mainstay of reporting on NHS performance in recent months.⁵³ Other interfaces go beyond the formalised healthcare system itself, connecting the NHS to social or community care services delivered by local government or the voluntary sector.⁵⁴

Whilst recognising that improving working across all interfaces will be beneficial to enabling improved care, this paper focuses on the challenges and opportunities at an ‘internal’ interface in the NHS: between primary care (principally, general practice) and secondary (hospital-based) care.

How does this interface work?

Across the United Kingdom, just as in Portugal, Denmark and the Netherlands for instance, patients seeking an appointment with a hospital doctor (in almost all circumstances) must first be seen by a primary care physician or a general practitioner (GP). This ‘gatekeeping’ (or filtering) role has been associated with a range of benefits, which include reducing overall costs, risk management and equity. ‘Gatekeeping’ can also act as an important mechanism for managing demand, but prolonged waiting for specialists is also associated with increased acuity of conditions and poorer medical outcomes, and broader knock-on effects to the economy from lost wages and declining productivity.⁵⁵ This contrasts – for instance – to systems which allow direct access to specialists, such as in the United States, Germany, France, and Sweden whose systems enable users more direct access to specialist care, but where both the user and healthcare system incur higher costs.⁵⁶

The vast majority of work in general practice does not involve referral to secondary care (indeed, it is estimated that roughly 10% of GP activity is dedicated to referrals) and is clearly ‘specialist’ in its own right. Equally, most hospital-based medicine does not involve assessing referrals from GPs. As the waiting list for elective care has grown, GPs are increasingly managing greater clinical risk among their patients who are waiting longer for care, and often have multiple or long-term conditions requiring ongoing management. Much of the risk for major conditions, such as cardiovascular disease is held and managed in general practice.

This being said, referral remains an important feature of general practice. At best, whole-person NHS care enabled via effective transfers across a range of interfaces enables timely and appropriate interventions

53. M. Limb, ‘Delayed discharge: how are services and patients being affected?’, *British Medical Journal* 17 January 2022 [[link](#)]

54. H. Dambha-Miller, G. Simpson, L. Hobson et al. ‘Integrated primary care and social services for older adults with multimorbidity in England: a scoping review’, *BMC Geriatrics*, Vol. 21, No. 674 (2021) [[link](#)]. See also H. Holder, S. Kumpunen et al., ‘Managing the hospital and social care interface’, *Nuffield Trust*, (March 2018) [[link](#)]

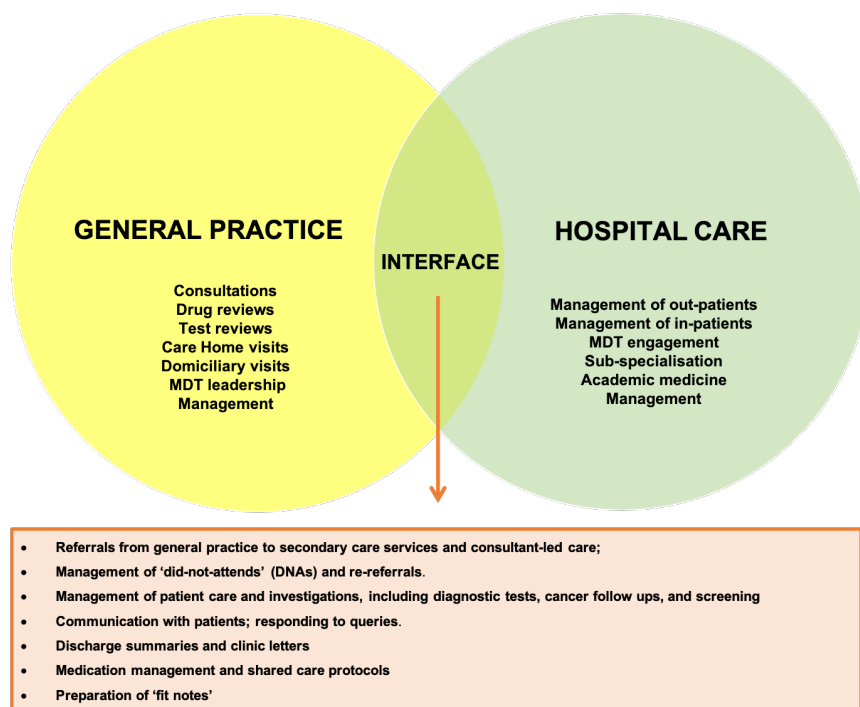
55. S. Globerman, ‘Reducing Wait Times for Health Care: What Canada Can Learn from Theory and International Experience’, *The Fraser Institute*, (October 2013) [[link](#)] For a discussion of the role of gatekeeper principles and their impact upon clinical outcomes, see: P. Vedsted, F. Olesen, ‘Are the serious problems in cancer survival partly rooted in gatekeeper principles? An ecologic study’, *British Journal of General Practice*, (August 2011) [[link](#)]

56. A. Coulter, ‘Managing demand at the interface between primary and secondary care’, *BMJ*, 27 June 1998 [[link](#)]. A useful overview of the development of generalist and specialist system differences across Europe is: ‘Healthcare outside of the Hospital’, *European Observatory* (2006) [[link](#)]

(in both a medical and fiscal sense). At its worst however, issues across the interface due to delay, poor information transfer or ineffective team-working compromise patient safety, deepen cultural differences between healthcare professions and leave patients feeling ‘bounced around’ services which they regard ‘as one’.⁵⁷

Figure 1 depicts activity most commonly associated with primary and secondary care respectively and sets out activity currently occurring at the interface between the two. This is merely illustrative and not exhaustive.

Fig. 1 – Activity Occurring at the Primary-Secondary Interface



Why focus on this interface?

Too often, poor coordination of information and care across the interface results in poor patient experience and compromised care.

The patient, around whom the system should be designed, is the one constant throughout the medical journey. A greater number of patients now live with multiple co-morbidities and have increasing needs across both primary and secondary care, requiring more effective coordination and communication, yet recent research from Healthwatch England finds one in five respondents with an experience of a GP referral had fallen into a ‘referrals black hole’.⁵⁸ They defined this as anyone who was referred by their GP but were: a) referred to the wrong service; b) had their referral appointment cancelled; c) they were (mistakenly) removed from the waiting list; d) they heard nothing further after their referral.

Patient expectations of effective communication have long been clear from both the academic literature and polling. The three key features of particular importance to patients as they are transferred across settings are: perceived barriers to further care, quality of communication and

57. A. Price & A. Majeed, 'Improving how secondary care and general practice in England work together: requirements in the NHS Standard Contract', *Journal of the Royal Society of Medicine* (2018) [link]. An example of the impact upon medical education which is explored further in this paper is:

J. Johnston & D. Bennet, 'Lost in translation? Paradigm conflict at the primary-secondary care interface' *Medical Education* (2018) [link]

58. 'Referrals black hole' new findings of people's experiences of GP referrals, *Healthwatch England*, 16 February 2023 [link]. On the importance of interface working to manage multimorbidity, see: M. Rowland, C. Paddison 'Better management of patients with multimorbidity', *British Medical Journal* (2013) [link]

coordination of their care.⁵⁹ These expectations have as yet largely remained under-prioritised by providers (and policymakers).⁶⁰ But there are promising signs this is changing. The Chair of the Royal College of General Practitioners recently called for the NHS to “set up an Amazon-style tracking system that would let patients monitor when they would be seen.” “A tracker system”, Professor Kamila Hawthorne states, “would reassure patients who are ‘anxious, worried and frustrated’ about when they will finally be seen and help them to negotiate ‘the jungle of the NHS’.”⁶¹ This is an important (and welcome) intervention which echoes recommendations made by Policy Exchange in our paper, *A Wait on Your Mind*, which called for greater ‘operational transparency’ across the NHS and an improved package of support to help people waiting for care.⁶²

Opportunities to address pressures upon general practice.

The volume and complexity of general practice work has increased inexorably over the past two decades.⁶³ As a recent piece puts it, the population is “larger, older” and “more likely to seek help for health concerns”. Care that used to be delivered by specialists in hospitals, particularly for long-term conditions, is increasingly being delivered by primary care teams in the community.⁶⁴

GPs identify four major and current issues relating to the interface which either produce additional workload or create unnecessary fragmentation.

1. Rejected referrals (often leaving patients feeling they are back at ‘square one’)
2. Obstacles to admission
3. Complexity of referral pathways
4. ‘Workload Transfer’ requests. Some of these include: prescribing requests; requests to follow up investigations (which are performed in other settings); and requests for post-operative checks.⁶⁵

General practice is increasingly faced with ‘failure demand’ as a consequence of breakdowns in pathways across the wider NHS, whilst ‘iatrogenic demand’ is created by an increased need for GP input following secondary care referral. A recent review shows that processing information from hospitals is the second most burdensome source of bureaucracy encountered by GPs. The same report finds that demand created by hospitals (including for instance requesting that follow up tests are booked) is responsible for 4.5% of potentially avoidable GP appointments.⁶⁶

Based on the number of consultations that were carried out in 2022, that would equate to 15.3 million GP appointments per year.⁶⁷

The most significant contributing factor was problems in booking outpatient appointments, which accounted for 2.5% of all avoidable

59. R. Sampson, J. Cooper J, R. Barbour et al., ‘Patients’ perspectives on the medical primary-secondary care interface: systematic review and synthesis of qualitative research’ *BMJ Open* (2015) [\[link\]](#)

60. C. Preston, F. Cheater, R. Baker and H. Hearnshaw, ‘Left in limbo: patients’ views on care across the primary/secondary interface’, *Quality in Health Care* (1999) [\[link\]](#)

61. D. Campbell, ‘Patients getting sicker as they face long waits for NHS care, says top GP’, *The Guardian*, 7 May 2023 [\[link\]](#)

62. R. Ede, S. Phillips, ‘A Wait on your Mind?’, *Policy Exchange*, 22 July 2021 [\[link\]](#)

63. R. Hobbs, C. Bankhead et al., ‘Clinical workload in UK primary care: a retrospective analysis of 100 million consultations in England’, *The Lancet*, Vol. 387, Issue 10035, June 4 2016 [\[link\]](#)

64. M. Marshall & M. Ikpoh ‘The workforce crisis in general practice’ *British Journal of General Practice* (2022) [\[link\]](#)

65. ‘Pushing back on inappropriate workload’, *British Medical Association*, 9 August 2022 [\[link\]](#)

66. H. Clay H & R. Stern, ‘Making Time in General Practice’, *The Health Creation Alliance* (October 2015) [\[link\]](#)

67. This assumes 342,000,000 appointments per year, conducted by N. Bostock, ‘General practice delivered 342m appointments in 2022 – and lost nearly 500 GPs’, *GP Online*, 27 Jan 2023 [\[link\]](#)

consultations.⁶⁸ This is likely to be a conservative estimate however. It has recently been suggested that as many as a third of GP appointments are based around queries relating to delayed hospital care (hence, after a referral has been made). If this were so, it would equate to over 100 million appointments across England every year.⁶⁹

The recent *Delivery plan for recovering access to primary care* reveals that practices estimate they spend 10% to 20% of their time on “lower-value administrative work generated by issues at the primary-secondary care interface”. The reality is that much of this work will be additive, rather than taking place instead of routine appointments, **but if we assume that on average 15% of all GP appointments were dedicated to managing a wide variety of interface-related issues, this would equal 48.6 million appointments per year.**⁷⁰ This is roughly double the number of appointments dedicated each year to the management of type-two diabetes.⁷¹

To manage this, some Local Medical Committees (LMCs) have set up a series of bespoke arrangements with local trusts in recent months.⁷² The recently-published *Delivery plan for recovering access to primary care* however goes some way towards setting out the terms which should alleviate a proportion of this workload transfer.⁷³ Where a patient has been referred into secondary care and requires a further referral, the secondary care provider should make this referral, rather than sending them back to general practice; fit notes should be issued by secondary care; NHS trusts must establish their own call and recall systems for patient follow-up and ICBS should ensure providers establish single routes for GPs and consultant-led teams to communicate rapidly.⁷⁴ This clarification is welcome, but given that these underlying responsibilities are already included in the Standard Contract, ensuring compliance will be key.

68. H. Clay & R. Stern, Making Time in General Practice, *The Health Creation Alliance* (October 2015) [\[link\]](#)

69. 'Third of GP Appointments consumed by patients asking about delayed hospital care', *GP Online*, 5 May 2022 [\[link\]](#)

70. Taking the total number of GP appointments reported in 2022, against the latest reported figures of Full Time Equivalent (FTE) GPs: 27,306 (March 2023), Pressures in general practice data analysis, *British Medical Association*, 25 May 2023 [\[link\]](#)

71. Based upon an analysis of GP activity from 2007-2014: R. Hobbs, C. Bankhead et al., 'Clinical workload in UK primary care: a retrospective analysis of 100 million consultations in England', *The Lancet*, Vol. 387, Issue 10035, June 4 2016 [\[link\]](#)

72. 'Building Safe Practice', Conference Agenda, *British Medical Association*, 24 November 2022 [\[link\]](#)

73. 'Delivery plan for recovering access to primary care', *NHS England*, 9 May 2022 [\[link\]](#)

74. R. Carter, 'Consultant-to-consultant referral to be mandated to avoid GP workload dump', *Pulse Today*, 9 May 2023 [\[link\]](#)

75. S. Aldridge 'Referral Management: rapid evidence scan', *The Strategy Unit*, October 2016 [\[link\]](#)

76. S. Laitner, *Twitter post*, 10 Jan 2023 [\[link\]](#)

Opportunities to optimise referrals.

The vast majority of work in general practice does not involve referral for onward care; nor does most hospital-based care involve investigation of referrals from general practice.⁷⁵ Indeed, it is no longer just general practice referring patients for onward investigation. In June 2022, a pilot was launched enabling community pharmacy to refer patients for further investigation of suspected cancer. It is therefore, likely that we may see referral activity become multi-, rather than uni-directional, originating from more places and joining a broader eco-system of providers. Approaches therefore to improve understanding, to support learning and professional development and to enhance communication and 'support' capabilities for effective, seamless working is increasingly vital.

For some, the language of a 'referral' is unhelpful in the broader shift to integrated care and in breaking down the professional and structural boundaries discussed in this report.⁷⁶ This being said, the optimisation of referrals remains a salient issue. A recent Getting it Right First Time (GIRFT) report shows that Referral to Treatment Times (RTT) for rheumatology

for instance can vary from 5–30 weeks for serious conditions, such as vasculitis and lupus, which require rapid diagnosis and assessment to reduce morbidity and mortality, revealing widespread variation in both referral activity and service provision.⁷⁷ Urgent GP referrals for cancer (whereby a GP refers a patient with suspected cancer to see a specialist within two weeks) is a key tool for improving early detection of cancer, but urgent cancer referral rates vary substantially across England, even when accounting for demographic factors.⁷⁸ A review led by The King’s Fund back in 2010 found that – anecdotally – only 30-50% of referrals by a GP led to treatment being initiated.⁷⁹ High levels of inappropriate referrals should be considered wasteful given broader pressures in the system – particularly with significant backlogs in elective care. In some instances, a patient may be better served by referral to a different type of service within an enhanced community offering.

Referrals for emergency care are different to those for elective care, in that the former relies on disease-specific symptoms and biomarkers; the latter on scales of urgency. For these referrals too, a recent analysis published in the journal *Family Medicine* of over 40,000 referrals from GP to acute medical assessments found high variation in referral rates, “incompletely explained by factors such as the age, deprivation, distance to the hospital or care home residence status”.⁸⁰

Measuring referral quality is not straightforward given the necessity to analyse whether both the location to which the referral was made and the underlying process (such as whether patient effectively informed), were appropriate.⁸¹ Solutions to poor referral include peer-to-peer education – particular from GPs with Extended Roles and the development of referral management services. Improved referral rates can also be achieved through effective use of clinical decision support tools/systems (CDSSs).⁸² These computer-based tools have a range of uses, including – for instance – enabling prescribing-based alerts which urge the GP to exercise caution where the patient an allergy has been flagged in their patient record.⁸³ Effective tools can also assist GPs in making effective onward referrals or to support their decision-making through improved risk assessment.⁸⁴ The QRISK score for instance, which has been in use for well over a decade, determines cardiovascular disease risk over 10 years.⁸⁵ Commensurate with a shift to managing a greater number of co-morbidities, some CDSSs have now been developed across multiple conditions.⁸⁶ A recent study presented 157 GPs with twenty descriptions of patients at varying degrees of risk from cancer and asked how likely they would be to refer them to an oncologist on the urgent, two-week pathway. After the event, they were then shown risk as calculated by an algorithm. The algorithm changed the physicians’ inclination to refer the patients 2.6% of the time and decisions improved overall.⁸⁷

Yet despite their potential, CDSSs remain underutilised across primary care. For instance, whilst a wide range of risk-prediction models for dementia have been developed, none are currently used, despite a third of patients with dementia remaining undiagnosed. Usability issues, a lack of

77. GIRFT programme national specialty report for rheumatology. GIRFT, 2021 [link]. On referral to treatment times, see: Referral to treatment, guidance, NHS England [link]
78. Improving appropriate urgent GP cancer referrals, *Behavioural Insights Team*, (August 2018) [link]
79. C. Foot, C. Naylor & C. Imison, ‘The Quality of GP diagnosis and referral’, *The King’s Fund* (2010) [link]
80. M. Lyall, D. Beckett, A. Price et al. ‘Variation in general practice referral rate to acute medicine services and association with hospital admission. A retrospective observational study’, *Family Practice*, Vol. 42, Issue 2, (April 2023) [link]
81. S. Aldridge, ‘Referral management: rapid evidence scan’, *The Strategy Unit*, (October 2016) [link]
82. Their advantages have been long understood: B. Delaney, ‘Can computerised decision support systems deliver improved quality in primary care?’, *The British Medical Journal*, 13 November 1999 [link]; for a recent analysis, see O. Kostopoulou, T. Porat, D. Corrigan et al., ‘Diagnostic accuracy of GPs when using high-fidelity simulation’ Vol.65 No. 656, *British Journal Of General Practice*, (March 2017) [link]
83. Improving appropriate urgent GP cancer referrals, *Behavioural Insights Team*, (August 2018) [link]
84. E. Ford, N. Edelman, L. Somers, ‘Barriers and facilitators to the adoption of clinical decision support systems: a qualitative interview study with UK general practitioners’, *BMC Medical Informatics and Decision Making*, 21 June 2021 [link]
85. CVD risk assessment and management, *National Institute for Health and Care Excellence*, (May 2023) [link]
86. Comorbidities Manager Tool, *BMJ Best Practice* [link]
87. O. Kostopoulou, K. Arora & B. Pálfi, ‘Using cancer risk algorithms to improve risk and referral decisions’, *Communications Medicine*, 10 January 2022 [link]

integration into clinical work and poor integration with electronic health records are some of the major factors explaining limited uptake.⁸⁸ There is also an ergonomic issue relating to the need to code information (to inform the tool) during the consultation itself, which can affect the style and character of the consultation.⁸⁹

Opportunities to improve referral support.

The Government’s Elective Recovery Plan – published in February 2022 – stressed the role of general practice in tackling NHS hospital backlogs, emphasising a focus on the use of the NHS eReferral Service (eRS) and Advice & Guidance (A&G) to try to avoid ‘unnecessary’ referrals to secondary care.⁹⁰

In 2019, a tele-dermatology pilot in Stockport showed 99% of queries received responses on the same day; only 18% of the 68 A&G requests received over a four-month period resulted in a referral. More recently, Bedfordshire, Luton and Milton Keynes ICS reported that in the summer of 2021, 70% of dermatology cases where A&G was sought were effectively managed in primary care.⁹¹ A retrospective analysis of A&G use for electronic endocrinology at the University Hospitals Leicester NHS Trust between 2017-2018 resulted in a reduction in clinic visits/admissions of 65%.⁹² Meanwhile, the proportion of outpatient appointments were reduced by 16.3% following introduction of A&G, according to a study undertaken at Queen Elizabeth Hospital Birmingham. That study concluded that “A&G requests to General Surgery potentially divert...patients away from the outpatient clinic. Responses are rapid”. It however also states that “a longer-term evaluation of the service” would be “necessary.”⁹³ A recent report from the Institute for Government states the use of A&G to tackle elective backlogs has shown “limited evidence of effectiveness so far”.⁹⁴

Box 2 – What is Advice & Guidance (A&G)

- A&G is defined as “non-face-to-face activity delivered by consultant-led services” which provides GPs with access to advice from hospital specialists, “enabling a patient’s care to be managed in the most appropriate setting, strengthening shared decision making and avoiding unnecessary outpatient activity”.
- GPs may seek A&G for advice on a treatment plan; for clarification regarding a patient’s test results; for advice on the appropriateness of a referral; or to identify which setting may be most appropriate to refer a patient into.
- A&G can take a number of forms, including synchronous methods (such as a telephone call); asynchronous methods (enabled electronically through the NHS e-Referral Service, or through other IT platforms).⁹⁵

Variable response times and ‘clunky’ systems are two issues just some of the issues which have been raised by GPs in relation to its use.⁹⁶ Some have also queried the use of mandatory targets.⁹⁷ Whilst the overall number of A&G requests has risen considerably in the past two years (see Fig. 2),

88. T. Porat, B. Delaney & O. Kostopolou ‘The impact of a diagnostic decision support system on the consultation: perceptions of GPs and patients’, *BMC Medical Informatics and Decision Making*, 2 June 2017 [\[link\]](#)

89. Ibid.

90. Delivery plan for tackling the COVID-19 backlog of elective care, *NHS England*, February 2022 [\[link\]](#)

91. ‘Advice and guidance to drive referrals crack-down’, *Pulse Today*, 25 November 2021 [\[link\]](#)

92. S. Nadeem, W. Aslam, H. Cave et al., ‘A retrospective analysis of electric endocrinology advice and guidance via NHS e-referral service at University Hospitals Leicester NHS Trust’, *Society for Endocrinology* (November 2018) [\[link\]](#)

93. I. Radnaeva, A. Muhthusami, S. Ward ‘NHS advice and guidance – improving outpatient flow and patient care in general surgery’, *The Surgeon*, 7 March 2023 [\[link\]](#)

94. S. Freedman & R. Wolf, ‘The NHS productivity puzzle: Why has hospital activity not increased in line with funding and staffing?’, *Institute for Government* (June 2023) [\[link\]](#)

96. ‘Advice and guidance to drive referrals crack-down’, *Pulse Today*, 25 November 2021 [\[link\]](#)

97. C. Potter, ‘Major hospital trust could make ‘advice and guidance’ mandatory following trial’, *Pulse Today*, 25 October 2021 [\[link\]](#)

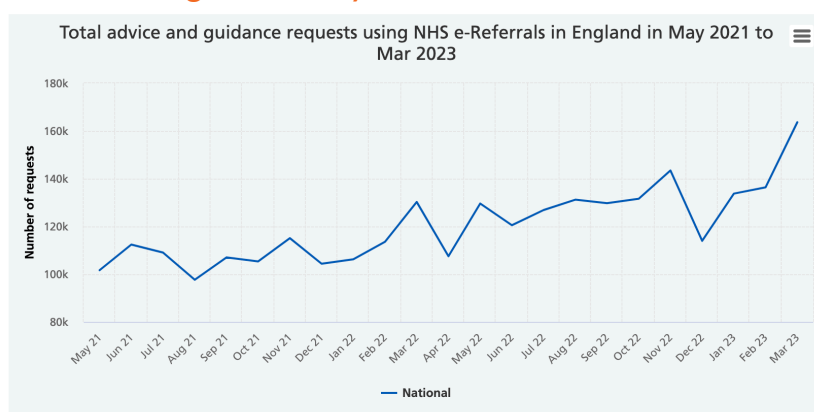
95. Advice and Guidance, *NHS England* [\[link\]](#)

this has not been met with a corresponding attempt to boost transparency of its use for service users, many of whom are unaware of the decision-making process, rationale for referrals (or a lack of one), or indeed clarity over *where* they sit in the pathway. Far greater sensitivity to this particular information gap is needed.

This is critical because Appointment Slot Issue (ASI) reports which are generated from NHS e-Referral Service (eRS) data reveal that almost 40% of referral requests made by GPs through the NHS e-Referral Service result in an ‘Issue’ (often due to a lack of services being made available for booking within eRS). This therefore represents a significant capacity issue, but also poses the risk of a greater number of patients ‘going missing’ at this interface, whilst they wait for consultant-led treatment.⁹⁸ As the health data experts, Insource, have recently explained, ASI lists can often “sit in huge paper piles waiting for slots that may take substantially longer than six months to become available”. “More worryingly, most ASI lists are not even counted in waiting list figures. In some Trusts the ASI can cover some 1,000 – 2,500 patients.”⁹⁹

There is therefore a ‘hidden’, unaccounted waiting list for consultant-led care, not included within the current ‘waiting list’ of 7.4 million patients.¹⁰⁰ **Based on anecdotal evidence we have heard during our research – we estimate that there to be a ‘missing’ group of patients which could number between 150,000 and 200,000 patients across England.** It is difficult however to provide a figure with confidence here, as this is not reported in official statistics.

Fig. 2 – Total advice and guidance (A&G) requests using NHS e-Referrals in England in May 2021 to March 2023



Source: <https://digital.nhs.uk/services/e-referral-service/document-library/advice-and-guidance-toolkit/national-advice-and-guidance-data-and-case-reports>

There is a recognition meanwhile that the quality of A&G responses varies within or between specialties, requiring regular peer review and feedback to ensure greater consistency.¹⁰¹ Evidence from a case study at Musgrove Park Hospital shows that although the e-Referral Service is intended as a single platform for consultants to access clinic referrals and A&G requests,

98. For the latest data from NHS Digital/NHS England, see the Appointment Slot Issue (ASI) reports published by NHS Digital [link]. For an overview of ASIs, see NHS Digital's guidance [link]

99. 'Losing patients is more common than you think', Insource, 5 May 2022 [link]

100. R. Findlay, 'Another record-breaking waiting list for England', *Health Service Journal*, 10 March 2022 [link]

101. Somerset NHS Foundation Trust: advice and guidance case studies, *NHS Digital*, 21 April 2023 [link]

consultants are required to use a separate system for vetting clinic referrals (Maxims), which reduces clinical efficiency.¹⁰² As part of this research, we have heard of clinicians having to operate and navigate six or seven different systems to handle an array of clinical tasks, all of which impact inter-operability and can frustrate processes.

From the perspective of suppliers to the NHS meanwhile, there are opportunities to improve support for applications developed by Tech Suppliers and NHS staff. The NHS England team should focus on developing the over-arching ‘data layer’ from which approved suppliers can read (or write) from to ensure providers are reimbursed in line with NHS policy. Primary and secondary care providers and their tech suppliers can then focus on improving the ‘application layer’ so that communication about referrals is as high-quality and efficient as possible.

A need to improve hospital discharge procedures.

Issues flow in the opposite direction too. After referring patients to hospital specialists, recent research from The Health Foundation has shown just 30% of GPs in England usually or often receive a timely report with the results of the specialist visit within seven days (the lowest of all the countries they surveyed). Most GPs are notified when their patients have been seen in out-of-hours care (94%), but, on average, only 26% received the information needed to continue managing care for the patient within 48 hours of discharge.¹⁰³ This represents a considerable ‘information gap’ at the interface. Illustrative of this phenomenon are the findings of a recent study of correspondence between primary and secondary care professionals about patients with cancer. The authors found that whilst potential side effects of proposed or given treatment were provided – with specific recommendations given to the GP about how to handle side effects – this proved inconsistent, with ‘late effects’ infrequently mentioned and no recommendations were provided in other instances. The “emotional reaction” meanwhile of the patient to receiving specific information was seldom reported.¹⁰⁴

A significant challenge for clinicians across hospital settings and in general practice centres on hospital discharge, with issues relating to fit notes and the ordering of diagnostic tests. Poor communication and a lack of clarity over ‘who does what’ persists in too many places.¹⁰⁵ When patients are discharged from hospital, patients may be referred to community pharmacy for additional support and follow-up care relating to their medicines. Significant changes are often made to medicines during hospitalisation which carries its own risk to patient safety and the seamless provision of services, with “up to 40% of medicines being discontinued and 45% of all medicines prescribed at discharge being new”.¹⁰⁶

In 2021 therefore, the NHS introduced the Discharge Medicines Service (DMS) as an essential service for all community pharmacy contractors, with the aim of ensuring improved communication of changes to a patient’s medication when they leave hospital and to reduce incidences of avoidable harm caused by medicines.¹⁰⁷ Early evaluations of the service

102. IBID

103. J. Beech, C. Fraser, T. Gardner et al., ‘Stressed and overworked: What the Commonwealth Fund’s 2022 International Health Policy Survey of Primary Care physicians in 10 Countries means for the UK’, *The Health Foundation*, (March 2023) [\[link\]](#)

104. M. Stegmann, J. Meijer, J. Nuver ‘Correspondence between primary and secondary patients with cancer: A qualitative mixed-method analysis’, *European Journal of Cancer Care* (23 August 2018) [\[link\]](#)

105. D. Stokes-Lampard, ‘General practice and secondary care: working better together’, *Academy of Medical Royal Colleges*, (March 2023) (p. 66) [\[link\]](#)

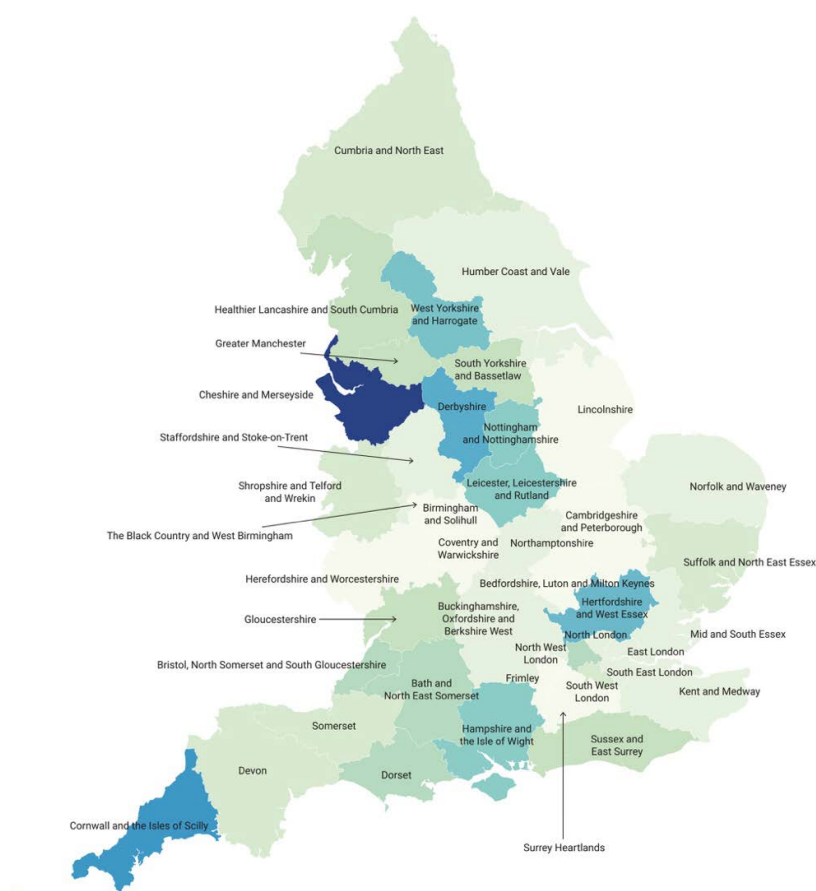
106. N. Thayer, A. Mackridge & S. White, ‘Predicting the potential value of the medicine service in England’, *Journal of Pharmaceutical Health Services Research*, 15 April 2023 [\[link\]](#)

107. NHS Discharge Medicines Service, Online Guide, *NHS England* [\[link\]](#)

show a reduction in medical discrepancies with medicines known to cause hospital readmission.¹⁰⁸ An observational review of the Welsh Discharge Medicines Review (DMR) service showed those receiving the service were 14% less likely to be readmitted within the first 90 days following discharge.¹⁰⁹

Yet uptake and use of the DMS is variable across the country. For instance, a recent article in the *Journal of Pharmaceutical Health Services Research* finds that the ‘most active’ area (Cheshire and Merseyside) showed 168 completed DMS claims per 10 000, whilst the median rate per ICS area was 5 per 10 000 population. See Fig. 3 for a mapping of these variations.¹¹⁰ Optimisation of the DMS has also been limited thus far by a significant ‘information gap’ which may reduce confidence and limit its effectiveness. For example, pharmacists may receive incomplete discharge medication lists preventing the identification of drug-related issues or to changes in medication which were introduced during the hospital stay.¹¹¹

Fig. 3 – ‘Completed DMS provision per 10 000 population across each ICS area. Shading indicates completed DMS claim volume per 10 000 population, with darker shades indicating greater volumes’



Source: Map reproduced from N. Thayer, A. John Mackridge, S. White, ‘Predicting the potential value of the new discharge medicines service in England’, *Journal of Pharmaceutical Health Services Research*, rmad020, [link].

108. S. Wright, Evaluation of a pilot community pharmacy-led discharge medicines service, *International Journal of Pharmacy Practice*, Vol.30 Issue 2 (December 2022) [link]. See also: N. Thayer, A. Mackridge & S. White, ‘Predicting the potential value of the medicine service in England’, *Journal of Pharmaceutical Health Services Research*, 15 April 2023 [link]

109. E. Mantzourani, H. Nazar, C. Phibben et al., ‘Exploring the association of the discharge medicines review with patient hospital readmissions through national routine data linkage in Wales: a retrospective cohort study’, *British Medical Journal*, 9 February 2020 [link]

110. N. Thayer, A. Mackridge & S. White, ‘Predicting the potential value of the medicine service in England’, *Journal of Pharmaceutical Health Services Research*, 15 April 2023 [link]

111. S. Khayatt, H. Nazar, ‘Qualitative investigation of barriers to providing an electronic hospital to community pharmacy referral service for discharged patients’ *PLOS Journal*, March 31 2023 [link]

A need to redesign pathways by looking at 'both ends of the telescope'.

Across a range of disease areas and conditions, effective assessment of pathways can improve outcomes and create significant additional service capacity. The introduction of the Faecal Immunochemical Test (FIT) as a 'rule-out' test for significant bowel disease, colorectal cancer, higher risk adenoma and inflammatory bowel disease in symptomatic patients with lower gastrointestinal (GI) symptoms is one such example and has altered both GP referral and secondary care investigation patterns.¹¹² It is a shift which spares patients unnecessary colonoscopies and ensures the most urgent, symptomatic patients are seen more quickly. In a letter issued by NHS England in October 2022, it was reported that implementation of the FIT had contributed to a 9% increase in colorectal cancer detection, alongside a 24% fall in demand for symptomatic colonoscopies at North Tees & Hartlepool NHS Foundation Trust. This is a significant intervention given current waits for endoscopy services.¹¹³ By way of example, nearly a quarter of those waiting (as of November 2022) were waiting more than thirteen weeks. A steep rise on pre-pandemic figures, when in November 2019 just 2.9 per cent of patients were waiting as long.¹¹⁴

Addressing wider system pressures.

There is a long-standing recognition that more patient care could be effectively managed in primary or community care settings or 'at home'. It is estimated that 43% of Emergency Department (ED) attendances could be managed in general practice.¹¹⁵ Only a minority (10%) of urgent hospital assessments in children currently result in an overnight admission, meaning that many of these patients could be managed in the community with adequate specialist input.¹¹⁶ A more detailed literature review is contained in Chapter 2, but research supports the idea of the certain chronic health conditions being managed predominantly in primary care based on the integration of GPs and specialists into multidisciplinary teams.¹¹⁷ Yet, whilst many patients could have their needs more effectively met across primary and community care settings (and evidence often suggests they prefer this option), this poses a significant capacity challenge upon the primary and community care workforce and the premises it operates from.¹¹⁸

Taking advantage of opportunities for workforce innovation and tackling cultural and structural separation between professional specialisms. It has long been understood that strong professional boundaries can inhibit collaboration and knowledge sharing across healthcare systems.¹¹⁹ But there are also clear clinical competencies and expertise that different professionals bring to the practice of medicine. Healthcare professionals will often cite the 'fairy tale' of the 'Gatekeeper' and the 'Wizard', a piece which appeared in the *British Medical Journal* in the late 1980s which parodies overly-simplistic narratives which advocate direct referrals to hospital specialists (the Wizard), without recognising

112. The FIT test looks for traces of blood in a sample of faecal matter, see: 'Testing for blood in your poo using the FIT test', *Cancer Research UK* [\[link\]](#) M. Johnstone, P. Burton, Georgios Kourounis et al., 'Combining the quantitative faecal immunochemical test and full blood count reliably rules out colorectal cancer in a symptomatic patient referral pathway', *International Journal of Colorectal Disease*, 21 December 2021 [\[link\]](#)
113. Re Using FIT in the lower GI pathway, *NHS internal correspondence*, 6 October 2022 [\[link\]](#)
114. B. Clover, 'Record waits for endoscopy as referrals soar', *Health Service Journal*, 24 January 2023 [\[link\]](#)
115. H. Anderson, A. Scantlebury, H. Leggett et al., 'Perspectives of GPs working in or alongside emergency departments in England: qualitative findings from the GPs and Emergency Departments Study', *British Journal of General Practice*, (October 2022) [\[link\]](#)
116. General practice and secondary care: working better together, *Academy of Medical Royal Colleges*, (March 2023) [\[link\]](#) p. 56
117. E. Price, R. Baker, J. Krause & C. Keen, 'Organisation of services for people with cardiovascular disorders in primary care: transfer to primary care or to specialist-generalist multidisciplinary teams?' *BMC Family Practice* 22 September 2014 [\[link\]](#)
118. Written evidence submitted by The At Scale Primary Care Networking Group, *Health and Social Care Select Committee submission*, (Dec 2021) [\[link\]](#)
119. A. Powell, H. Davies, 'The struggle to improve patient care in the face of professional boundaries', *Social Science & Medicine*, Vol. 75, No. 5, (September 2012) [\[link\]](#)

the comprehensive and continuing care that general practice provides (the Gatekeeper).¹²⁰ Indeed, it is important to note the differences in medical expertise practiced by ‘generalists’ and ‘specialists’. According to the late Dr Marshall Marinker, the task of the specialist is “to reduce uncertainty, to explore possibility, and to marginalize error. That of the general practitioner is to mediate between the predicament of the individual and the potential of bioscience: i.e., to tolerate uncertainty, explore probability, and to marginalize danger”.¹²¹

There is however an ongoing discussion about the best ‘blend’ of specialist and generalist skills required across the medical workforce. Discussion concerning the merits of expanding self-referral amid pressures in general practice, coupled with significant growth in the number of speciality or specialist grade (SAS) doctors – who have at least four years of postgraduate training (80% have over ten year’s clinical experience) – has stimulated a lively debate about whether these (largely) hospital-trained doctors could be deployed to work in primary care settings.¹²² The General Medical Council has reflected that hundreds of SAS doctors were “itching” to work in general practice.¹²³ NHS England meanwhile has signalled its intention to launch a pilot to further evaluate the idea, whilst the Government echoed this intention in their recent *Delivery plan for recovering access to primary care*.¹²⁴ However, both the British Medical Association and the Royal College of General Practitioners have reflected concerns that patient safety may be compromised by adopting this approach.¹²⁵ Among their concerns are the supervisory requirements qualified GPs would need to undertake to support SAS doctors operating in new settings; increasing workloads (for existing GPs); and uncertainty regarding the training pathway that SAS doctors would pursue, i.e. what is the route to becoming a fully-qualified GP, or where will their limits to practice scope lie when first working in general practice.

120. N. Mathers, P. Hodgkin, ‘The Gatekeeper and the Wizard: a fairy tale’ *British Medical Journal*, 21 January 1989 [[link](#)]

121. Marinker cited in *Postgraduate Medical Journal*, Vol.99, Issue 1172, (June 2023) [[link](#)]

122. Unlocking the potential of the SAS workforce, *General Medical Council*, 17 March 2023 [[link](#)]; . Salisbury, ‘Would GMC proposals prop up or undermine general practice?’ *British Medical Journal*, 25 October 2022 [[link](#)]; ‘Analysis: SAS to the rescue?’, *Pulse Today*, 21 October 2022 [[link](#)]

123. S. Lind, ‘SAS doctors itching to work in general practice, says GMC chief’, *Pulse Today*, 22 March 2023, [[link](#)]

124. *Delivery plan for recovering access to primary care*, *Department of Health & Social Care*, (May 2023) [[link](#)] (p. 30)

125. E. Parr, ‘NHS England planning pilots of SAS doctors in general practice in abuse of rules’, *Pulse Today* 3 April 2023 [[link](#)]

Chapter 2 – Back to the Future? Efforts and Evidence for Improving the Interface

“The domiciliary services of a given district would be based on a Primary Health Centre – an institution equipped for services of curative and preventative medicine to be conducted by the general practitioners of that district, in conjunction with an efficient nursing service and with the aid of visiting consultants and specialists”,

The Dawson Report on the future provision of medical and allied services: an interim report to the Minister of Health (1920), p. 6¹²⁶

‘The traditional divide between primary care, community services, and hospitals — largely unaltered since the birth of the NHS — is increasingly a barrier to the personalised and coordinated health services patients need.’

Simon Stevens, Chief Executive, NHS England in Five Year Forward View (2014)¹²⁷

“Most pressure on the service today comes from older people with multiple long-term conditions who are not well served by a system based on hospitals, professional control and specialist demarcations.”

Lord Crisp (2023)¹²⁸

This chapter contains a literature review which contextualises and assesses previous attempts at enhancing interface working.

Prior to the foundation of the NHS, the Dawson Report of 1920 set out a vision of GPs and consultants working together in both Primary and Secondary Health Centres. There was to be a continuous and natural exchange of ideas and easy access for GPs to gain experience in teaching hospital settings. The 1946 National Health Service Act would ultimately establish a tripartite system: hospitals; primary care providers (such as GPs); and local authorities providing services, such as maternity care. Greater specialisation over time, differing employment status and contracting, as well as incentive structures have ultimately meant that primary and secondary care have largely operated as ‘separate spheres’.

Yet in recent years (see Table 1), a wide variety of initiatives – including

126. 'Interim Report on the Future Provision of Medical and Allied Services', *Ministry of Health*, May 1920 [[link](#)], p. 6

127. *Five Year Forward View, NHS England*, October 2014 [[link](#)]

128. N. Crisp, 'Radical long-term NHS reform is needed to fix the health and social care crisis', *Politics Home*, 9 January 2023 [[link](#)]

at the national level – have sought to enhance working across the interface, and a large number of studies have explored the relationship between GPs and hospital specialists and how their collaboration may be enhanced.¹²⁹

From the early 1990s, GP fundholding enabled GPs with special interests to receive referrals from other GPs and enabled practices to provide a wider range of services ‘in-house’, such as physiotherapy.¹³⁰ By the mid 1990s in Wirral, the Path Finder project was developed in response to the need for better communication of current research evidence and clinical practice guidelines.¹³¹ At this time, there were calls for a ‘primary care led NHS’, leading to debates about whether it would be sufficiently staffed and resourced to deliver the type of anticipatory care envisaged.¹³²

In the 2000s, ‘Community Matrons’ and ‘Models of Case Management’ were introduced to improve working across the interface.¹³³ Between 2007-2008, *The Torfaen Referral Evaluation Project* engaged local GPs and consultants in collaboratively assessing the validity and quality of referrals. In the year-long scheme, GPs were funded for weekly protected time to discuss referrals retrospectively, and to attend meetings with consultants. Referral rates in orthopaedics and emergency admissions were reduced by 50%.¹³⁴ In 2008, a joint Royal Colleges working group published *Teams Without Walls*, “an integrated model of care, where professionals from primary and secondary care work together in teams, across traditional health boundaries, to manage patients using care pathways designed by local clinicians”.¹³⁵

In 2011, The Coventry and Rugby GP Gateway was developed by the (then) Coventry and Rugby Clinical Commissioning Group, which held medical advice, referral information and up-to-date policies for GPs in the area. Community dermatology services were developed, led by GPs with Specialist Interests (now called Extended Roles) through close working with community and secondary care providers; minor surgery for diagnostic purposes, acne treatment and dermatoscopy (to diagnose unsuspected cancerous lesions) were also undertaken. Specialist Nurse-led clinics conducted home visits and delivered individualised patient management plans for conditions such as eczema and psoriasis. Similar initiatives now exist in many places across the country.¹³⁶

Between 2015 to 2018, NHS England ran the Vanguard ‘New Care Models’ programme, intended to design prototypes which would “reduce hospital utilisation by moving specialist care out of hospital into the community and by fostering coordination of health, care and rehabilitation services”.¹³⁷ More recently, a GP hotline and respiratory support service set up in North West London during the COVID-19 pandemic, supporting GPs to direct patients towards the most appropriate care pathways and reducing emergency department attendance of patients who could continue to be managed in the community.¹³⁸

129. A selection of the literature includes: ‘P. Higgins, ‘The GP/Hospital Interface’, *Journal of the Royal College of Physicians of London*, (July 1979) [\[link\]](#); R. Westerman, F. Hull et al., ‘A study of communication between general practitioners and specialists’, *British Journal of General Practice*, (November 1990) [\[link\]](#); M. Marshall, ‘How well do general practitioners and hospital consultants work together: a qualitative study of cooperation and conflict within the medical profession.’, *British Journal of General Practice*, (July 1998) [\[link\]](#); C. Ham, ‘Integrating NHS care: Lessons from the frontline’, *The Nuffield Trust*, (March 2008) [\[link\]](#); T. Penney, ‘Delayed communication between hospitals and general practitioners: where does the problem lie?’, *British Medical Journal*, July 1998 [\[link\]](#) and more recently, R. Sampson, R. Barbour, P. Wilson, ‘The relationship between GPs and hospital consultants and the implications for patient care: a qualitative study’, *BMC Family Practice*, 14 April 2016 [\[link\]](#)
130. D. Bramwell, ‘How can GPs and community health services work more effectively together?’, *British Journal of General Practice*, (July 2015) [\[link\]](#)
131. I. Buchan & I. Kennedy, ‘Path Finder: an interactive clinical information system’, *International Journal of Health Care Assurance*, Vol. 8 No. 7 (December 1995) [\[link\]](#)
132. L. Perderson & B. Leese, ‘What will a primary care led NHS mean for GP workload? The problem of the lack of an evidence base’, *British Medical Journal*, 3 May 1997 [\[link\]](#)
133. D. Bramwell, S. Peckham, P. Allen & K. Checkland, ‘How can GPs and community health services work more effectively together?’, *British Journal of General Practice* (June 2015) [\[link\]](#)
134. E. Evans, ‘The Torfaen referral evaluation project’, *Quality in Primary Care*, Vol. 17, No. 6 (2009), 423-9.
135. ‘Teams without Walls’, *Royal College of Physicians*, [Accessed 16/6/2023] [\[link\]](#)
136. ‘GP Gateway’, *NHS Coventry and Warwickshire Integrated Care Board*, [Accessed 28 March 2023] [\[link\]](#)
137. M. Morciano, K. Checkland, J. Billings et al., ‘New integrated care models in England associated with small reduction in hospital admissions in longer-term: A difference-in-differences analysis’, *Health Policy*, Vol. 124 Issue 8, (August 2020) [\[link\]](#)
138. K. Kumar, V. Mak, K. Groom et al., ‘Respiratory specialist working in different ways: Development of a GP hotline and respiratory support service during the COVID-19 pandemic’, *Future Healthcare Journal*, (October 2020) [\[link\]](#)

In the Summer of 2021, NHS Providers' 'At Scale Primary Care Networking Group' set out a series of proposals for effective partnership working between primary and secondary care providers, stating its importance to address the care backlog effectively, and to support patients and their families whilst they wait.¹³⁹ Earlier this year, The British Geriatrics Society set out a blueprint for preventing and managing frailty in older people, emphasising proactive anticipatory care, an integrated community model for reablement and intermediate care and reimagined outpatient services (among a range of other measures).¹⁴⁰

Lastly, The Academy of Medical Royal Colleges was commissioned by NHS England in September 2022 to set out a series of 'proven' and 'low-cost' initiatives to improve the interface. Their report – *General practice and secondary care: Working better together* provides “50 vignettes either directly improving the quality of care or reducing the burden on clinicians and other NHS staff”, with a focus on three critical features: culture, communication and clinical process.¹⁴¹

It has been the case for some time, therefore, that whilst there remain a range of services which must be delivered in a hospital site, “owing to economies of scale, facilities, equipment, rotas, and round-the-clock teams”, there are already many examples of 'hospital doctors' working across community and primary care settings, including community geriatricians working with community multidisciplinary teams, community hospitals, or care homes. Community Child Health (CCH) is the largest paediatric sub-specialty, providing autism spectrum disorder assessment clinics (for instance), whilst palliative medicine and mental health services are further other examples where interface working is long-standing.¹⁴²

139. Addressing the care backlog, *NHS Providers*, [Accessed 16/6/2023] [\[link\]](#)

140. 'Joining the Dots: A blueprint for preventing and managing frailty in older people', *British Geriatrics Society*, [Accessed 16/6/2023] [\[link\]](#)

141. *General practice and secondary care: Working better together*, *Academy of Medical Royal Colleges*, (March 2023) [\[link\]](#)

142. D. Oliver, 'Should we shift more specialist doctors' time into community care?' *British Medical Journal*, 15 June 2022 [\[link\]](#) See also: Community paediatric workforce short report, *College of Paediatrics and Child Health*, (2017) [\[link\]](#)

Table 1 – Policy Initiatives to Enhance the Primary-Secondary Interface (Since 2012)

Year	Report / Strategy
2012	<p>Health and Social Care Act</p> <ul style="list-style-type: none"> Consultants represented as clinical member on the governing body of clinical commissioning groups (CCGs)¹⁴³
2014	<p>NHS 'Five Year Forward View'¹⁴⁴</p> <ul style="list-style-type: none"> Advocates increase in out-of-hospital care New Models of Care Programme established to support 'vanguard' schemes to rapidly develop and implement 'new care models' <ul style="list-style-type: none"> Envisaged Multispecialty community providers (MCP), or extended group practices forming federations, networks or single organisations offering a wide range of care using a broad range of professionals with an aim of shifting the majority of outpatient consultations and ambulatory care out of hospital settings. Also establishes Primary and acute care systems (PACS) (single organisations providing list-based GP, hospital, community and mental health services).
2015	<ul style="list-style-type: none"> NHS electronic referral service (or e-RS) introduced with 'advice and guidance' (A&G) feature, allowing GPs to request advice from consultants before or instead of making a referral.
2016	<p>GP Forward View¹⁴⁵</p> <ul style="list-style-type: none"> Includes "new Standard Contract measures for hospitals to stop work shifting at the hospital/general practice interface." A new NHS England, NHS Improvement, RCGP and GPC Working Group set up to drive action to improve current interface between primary and secondary care.
2019	<p>NHS Long Term Plan¹⁴⁶</p> <ul style="list-style-type: none"> Committed to service redesign to reduce pressure on emergency and outpatient hospital services. Commits to removing up to 30 million outpatient visits a year through better support for GPs, online booking systems, appointments closer to home, alternatives to traditional appointments and avoiding patients having to travel to unnecessarily.
2021	<p>NHS England announces £160m initiative to 'develop a blueprint for elective recovery' which includes 'greater access to specialist advice for GPs'.¹⁴⁷</p>
2022	<p>Fuller Stocktake¹⁴⁸</p> <ul style="list-style-type: none"> Calls to enable secondary care specialists to "wrap-around" 'neighbourhood teams', and for an expansion in the role of community clinics.
2022	<p>Health and Care Act¹⁴⁹</p> <ul style="list-style-type: none"> Placed integrated care systems (ICSs) on a statutory footing, creating the conditions to enable shared budgets across providers.
2023	<p>Hewitt Review: an independent review of integrated care systems¹⁵⁰</p> <ul style="list-style-type: none"> Calls for "close partnerships between many parts of the health and care system - primary care, community health, mental health, acute hospital trusts, local government and social care providers - working together in different ways." (p. 11)
2023	<p>Delivery plan for recovering access to primary care¹⁵¹</p> <ul style="list-style-type: none"> Requires ICBs to report progress on improving the interface with primary care, especially areas highlighted in an Academy of Medical Royal Colleges report which provides 50 vignettes of improved and effective interface working covering culture, communication and clinical process.¹⁵²

143. 'Clinical commissioning group governing body members: Role outlines, attributes and skills', *NHS England*, [Accessed 16/6/2023] [\[link\]](#)

144. Five Year Forward View, *NHS England*, October 2014 [\[link\]](#)

145. General Practice, 'Forward View', *NHS England and Royal College of General Practitioners*, April 2016 [\[link\]](#)

146. NHS Long Term Plan, *NHS England*, [Accessed 28/03/2023] [\[link\]](#)

147. 'NHS's £160 million 'accelerator sites' to tackle waiting lists', *NHS England*, 13 May 2021 [\[link\]](#)

148. Next Steps for integrating primary care: Fuller Stocktake Report, *NHS England and NHS Improvement*, May 2022 [\[link\]](#)

149. Health and Care Act (2022) [\[link\]](#)

150. P. Hewitt, 'The Hewitt Review: An independent review of integrated care systems', *Health and Social Care Committee*, 4 April 2023 [\[link\]](#)

151. Delivery plan for recovering access to primary care, *Department of Health & Social Care*, (May 2023) [\[link\]](#)

152. General practice and secondary care: Working better together, *Academy of Medical Royal Colleges*, (March 2023) [\[link\]](#)

There has been a long-standing impetus and a rich catalogue of attempts to embed or to improve interface working. So “why”, as one author in the *British Journal of General Practice* has recently put it, has improving the interface proven “so difficult, and why does it so often go so wrong?”¹⁵³

The 2016 GP Forward View reflected the possibilities for improved specialist input, but “failed miserably”, according to a recent piece from Jaimie Kaffash, editor of *Pulse*, who commented that workload transfer, or “bounce back” to GPs, such as requests to organise tests and further follow-up from hospital trusts became “too easy”. Many GPs would argue it remains so.¹⁵⁴ A recent article recommends that the Standard Contract should be refreshed in order address these concerns, but this has not taken place to date.¹⁵⁵

Literature Review

In order to consider appropriate future reforms, and how they may best be implemented, we have undertaken a review of evidence published in academic peer-reviewed journals, relating to enhancing work at the primary-secondary care interface. Whilst not a comprehensive systematic review, this is a wide-ranging, illustrative survey, and draws on evaluations of pathway re-design and interface initiatives over the past fifteen years. It is based on the search parameters performed in the Cochrane Review on this subject in 2008 updated to include papers published to 2021.¹⁵⁶ More expanded comments on key papers are published in the appendix.

Table 2 – UK-Focused Publications on Interventions at the Primary-Secondary Care Interface

Medical Field	Intervention	Problem Addressed	Outcome(s)
Neurosurgery GP-consultant referral ¹⁵⁷	Survey Online referral system (ORS)	<ul style="list-style-type: none"> Referral system optimisation Timeliness of referral to specialist care 	<ul style="list-style-type: none"> ORS remains in need of improvement Recommend promotion of neurosurgical education and mitigation of the effects of adverse workplace human factors.
Mental health First psychotic episode ¹⁵⁸	Educational RCT*	<ul style="list-style-type: none"> Timeliness of referral to specialist care. 	<ul style="list-style-type: none"> GP training on first-episode psychosis is insufficient to alter referral rates to early-intervention services or reduce the duration of untreated psychosis.
Renal medicine Chronic Kidney Disease ¹⁵⁹	Guidelines Guidance on CKD/cardiovascular risks	<ul style="list-style-type: none"> Optimising expertise in primary care Timeliness of referral to specialist care 	<ul style="list-style-type: none"> Post NICE guidelines, GPs are better at optimising blood pressure. Diabetes management and lifestyle modifications need further improvement.

153. R. Jones, 'Fault Lines', *British Journal of General Practice*, 2016 [link]

154. General Practice Forward View, *NHS England and Royal College of General Practitioners*, April 2016, p. 4 [link]; 'Best Laid Plans', *Pulse*, 3 March 2023, p. 10 [link]

155. R. Sampson R, R. Barbour R, P. Wilson, 'The relationship between GPs and hospital consultants and the implications for patient care: a qualitative study', *BMC Family Practice* (2016) [link]

156. A. Akbari et al., *Interventions to improve out-patient referrals from primary care to secondary care*. Cochrane Database of Systematic Reviews, 2008(4): p. CD005471. [link]

157. M. Amarouche et al., *Referrers' point of view on the referral process to neurosurgery and opinions on neurosurgeons: a large-scale regional survey in the UK*. *BMJ Open* (2017), p. e017495. [link]

158. H. Lester et al., 'REDIRECT: cluster randomised controlled trial of GP training in first-episode psychosis', *British Journal of General Practice* (2009), pp. e183-90. [link]

159. A. Arjunan et al., 'Chronic kidney disease referrals from general practitioners pre- and post National Institute for Health and Care Excellence guidance 2014', *Clinical Medicine* (2019), pp. 490-493. [link]

<p>Renal medicine¹⁶⁰</p>	<p>Virtual clinics</p> <p>Introduction of community kidney service based in hospital.</p>	<ul style="list-style-type: none"> • Timeliness of referral to specialist care • Integration of primary and secondary care systems • Delay to being seen in specialist care 	<ul style="list-style-type: none"> • Referral rate rose. • >80% did not require outpatient appointment. • Wait for specialist advice fell from 64 to 6 days. • GPs had positive views of the service and improved confidence in managing CKD. • High levels of patient satisfaction. • Nephrologists valued seeing the entire primary care record but reported concerns about volume of referrals. • To use both specialist and generalist expertise efficiently, services require support from community interventions which engage GPs in service improvement.
<p>Neurology¹⁶¹ Migraine</p>	<p>Integrated and coordinated systems of care</p> <p>Review article</p>	<ul style="list-style-type: none"> • Integration of primary and secondary care systems • Referral system optimisation • Timeliness of referral to specialist care 	<ul style="list-style-type: none"> • Outlines advantages of: integrated & coordinated systems of care, in which primary and specialist care complement and support each other. • The use of comprehensive referral and linkage protocols to enable continuity of care.
<p>Ophthalmology Vision Loss (Cataract, glaucoma, macula, paediatric, general ophthalmic disease)¹⁶²</p>	<p>Electronic referrals</p> <p>Centralised ophthalmic electronic referral unit.</p>	<ul style="list-style-type: none"> • Referral system optimisation. • Delay to being seen in specialist care • Timeliness of referral to specialist care 	<ul style="list-style-type: none"> • Following implementation, waiting times reduced from median of 14 weeks to 4 weeks. • Significantly fewer new patients were seen. • Fewer A&E and 'did not arrive' (DNA) new patients. • System ensures patients less likely to go blind from treatable conditions. • Urgent conditions continue to be prioritised • Savings made with efficiencies gained can be re-invested towards better overall patient care.
<p>Ophthalmology Glaucoma¹⁶³</p>	<p>Automated imaging technology</p> <p>Specialist triage</p>	<ul style="list-style-type: none"> • Referral system optimisation • Delay to being seen in specialist care • Avoiding unnecessary referrals to specialist care 	<ul style="list-style-type: none"> • 955 participants • Glaucoma diagnosed in 17% of participants • 38% discharged after first visit • Cost-effective • Results were sensitive to the triage costs.
<p>Hepatology Chronic Hepatitis B¹⁶⁴</p>	<p>Allied professional-led services</p> <p>Nurse-led clinic</p>	<ul style="list-style-type: none"> • Referral system optimisation • Timeliness of referral to specialist care • Avoiding unnecessary referrals to specialist care 	<ul style="list-style-type: none"> • Improved case referral rates • Increased proportion of contacts tested • Increased full vaccination rates • Likely cost effective

160. S.A. Hull et al., 'Do virtual renal clinics improve access to kidney care? A preliminary impact evaluation of a virtual clinic in East London', *BMC Nephrology* (2020), p. 10 [[link](#)]

161. A. Khan, M.Z. Mustafa & R. Sanders, 'Improving patient access to prevent sight loss: ophthalmic electronic referrals and communication (Scotland)', *Public Health* (2015), pp. 117-23. [[link](#)]

162. M. Ashina et al., 'Migraine: epidemiology and systems of care', *The Lancet* (2021), pp. 1485-1495. [[link](#)]

163. A. Azuara-Blanco et al., 'Automated imaging technologies for the diagnosis of glaucoma: a comparative diagnostic study for the evaluation of the diagnostic accuracy, performance as triage tests and cost-effectiveness (GATE study). Health Technology Assessment (Winchester, England)' (2016), pp. 1-168. [[link](#)]

164. K. Beebejaun et al., 'Impact of a nurse-led enhanced monitoring, management and contact tracing intervention for chronic hepatitis B in England, 2015-2017', *Journal of Viral Hepatitis* (2021), pp. 72-79. [[link](#)]

<p>Endocrinology Diabetes¹⁶⁵</p>	<p>Inter-professional education (IPE) programme.</p>	<ul style="list-style-type: none"> • Avoiding unnecessary referrals to specialist care • Timeliness of referral to specialist care 	<ul style="list-style-type: none"> • Change in referral ratio • Effects of IPE sustained beyond 2 years and carried into practice. • Improvement in patient outcomes • Increases confidence, capacity and scope of care in the community
<p>Elective Surgery (Musculoskeletal, urological, ENT, gynaecology, general surgical, ophthalmology)¹⁶⁶</p>	<p>Guidelines Systematic review</p>	<ul style="list-style-type: none"> • Optimising expertise in primary care • Avoiding unnecessary referrals to specialist care • Timeliness of referral to specialist care 	<ul style="list-style-type: none"> • 24 eligible studies • Included UK, Europe, Canada, USA. • Four RCTs* reported increases in appropriateness of pre-referral care. • No evidence found for effects on practitioner knowledge. • Mixed evidence reported on rates of referral and costs • Two studies reported no change in health outcomes.
<p>Paediatrics Chronic pain in children¹⁶⁷</p>	<p>Survey</p>	<ul style="list-style-type: none"> • Optimising expertise in primary care • Resources available to GPs and specialists 	<ul style="list-style-type: none"> • 472 pain clinicians and 131 GPs contacted. • There is a need for increasing training and resources amongst GPs and pain clinicians for managing chronic pain in the paediatric age group.
<p>General paediatrics¹⁶⁸</p>	<p>Consultant triage Paediatric demand management (PDM) service in hospital Consultant-delivered service</p>	<ul style="list-style-type: none"> • Optimising referral management • Timeliness of referral to specialist care • Delay to being seen in specialist care • Integration of primary and secondary care systems 	<ul style="list-style-type: none"> • 7162 patients • >25% referrals managed without a clinic appointment • >50% requests for Assessment Unit admission managed alternatively, typically with advice only or rapid access clinic appointment, reversing trend of preceding years. • Suggestion of substantial cost saving • PDM service succeeded in reducing unnecessary hospital attendances by managing patients more effectively and strengthening partnerships with primary care. • The service has received overwhelmingly positive feedback from GPs.
<p>Paediatric and peri-natal cardiology¹⁶⁹</p>	<p>Telemedicine</p>	<ul style="list-style-type: none"> • Optimising referral management • Integration of primary and secondary care systems 	<ul style="list-style-type: none"> • 117 telemedicine patients compared with 387 patients seen in outreach clinics. • Mixed results on cost analysis • Telemedicine was perceived by cardiologists, district clinicians, and families as reliable and efficient.

165. D.L. Ching & K.A. Earle, 'An inter-professional education programme for diabetes care in London', *BMJ Quality Improvement Reports* (2013) [\[link\]](#)

166. A. Clarke et al., 'Can guidelines improve referral to elective surgical specialties for adults? A systematic review'. *Quality & Safety in Health Care* (2010), pp. 187-94. [\[link\]](#)

167. A. Bhatia et al., 'Chronic pain in children in the UK: a survey of pain clinicians and general practitioners', *Paediatric Anaesthesia* (2008), pp. 957-66. [\[link\]](#)

168. H.S. Hodgson, N. Webb, and L. Diskin, 'Consultant-led triage of paediatric hospital referrals: a service evaluation', *BMJ Paediatrics Open* (2021), p. e000892. [\[link\]](#)

169. R. Dowie et al., 'Telemedicine in pediatric and perinatal cardiology: economic evaluation of a service in English hospitals', *International Journal of Technology Assessment in Health Care* (2007), pp. 116-25. [\[link\]](#)

<p>Cardiology Palpitation¹⁷⁰</p>	<p>Allied health professional-led service</p> <p>Nurse led clinic in hospital</p>	<ul style="list-style-type: none"> • Avoiding unnecessary referrals to specialist care • Delay to being seen in specialist care • Integration of primary and secondary care systems 	<ul style="list-style-type: none"> • 389 patients seen • Mean time to assessment 38 days • 13% subsequently referred to a cardiologist • High-risk patients (5%) waited +70 days to be seen by a cardiologist compared with patients seen directly by cardiologist: before adopting a nurse-led service, a rigorous pathway for early assessment of high-risk patients needs to be agreed.
<p>General referral quality¹⁷¹</p>	<p>Educational outreach</p>	<ul style="list-style-type: none"> • Optimising expertise in primary care • Avoiding unnecessary referrals to specialist care • Increase the quality of referrals 	<ul style="list-style-type: none"> • Quality of referrals improved • Referral rates in orthopaedics and emergency admissions showed a striking reduction of up to 50% • Variability between practices decreased • Referrals to local services increased • Alternative community-based services were explored and an understanding of the best local pathways for some common conditions was reached.
<p>Orthopaedics Musculoskeletal conditions¹⁷²</p>	<p>Allied professional led service</p> <p>Physiotherapy (Intermediate Care (IC))</p> <p>Systematic review</p>	<ul style="list-style-type: none"> • Optimising expertise in primary care • Avoiding unnecessary referrals to specialist care • Increase the quality of referrals • Timeliness of referral to specialist care 	<ul style="list-style-type: none"> • 23 studies identified. • 72-97% patients managed entirely in IC • 20-60% reduction in orthopaedic referral rate • Patient reported outcome measures showed significant symptom improvements. • Physiotherapists' clinical decision-making and referral accuracy comparable to doctors in 68-96% of cases. • IC service leads to reduced orthopaedic waiting times and high patient satisfaction. • Findings are <u>not</u> based on strong evidence • Urgent need for high-quality, prospective, comprehensive evaluation of IC provision, including cost-effectiveness and impact on other services.
<p>Cancer¹⁷³</p>	<p>Systematic review</p> <p>Education, audit and feedback, decision support software, guideline use, diagnostic tools, and other specific skills training.</p>	<ul style="list-style-type: none"> • Timeliness of referral to specialist care • Integration of primary and secondary care systems 	<ul style="list-style-type: none"> • 22 papers reviewed. • Most studies reported a positive effect on their specified outcomes, although no study measured a direct effect on reducing delay. • No evidence that any intervention directly reduced primary care delay in the diagnosis of cancer. • Limited evidence suggests that complex interventions, including audit and feedback and specific skills training, have the potential to do so.

170. P.A. Scott et al., 'A nurse-led palpitations clinic: a 2-year experience'. *Postgraduate Medical Journal* (2010), pp. 3-7. [\[link\]](#)

171. E. Evans, 'The Torfaen referral evaluation project', *Quality in Primary Care* (2009), pp. 423-9. [\[link\]](#)

172. A. Hussenbux et al., 'Intermediate care pathways for musculoskeletal conditions--are they working? A systematic review', *Physiotherapy* (2015), pp. 13-24. [\[link\]](#)

173. G. Mansell et al., 'Interventions to reduce primary care delay in cancer referral: a systematic review', *British Journal of General Practice* (2011), pp. e821-35. [\[link\]](#)

<p>Cancer genetics¹⁷⁴</p>	<p>Educational outreach</p>	<ul style="list-style-type: none"> • Optimising expertise in primary care 	<ul style="list-style-type: none"> • Following intervention, more staff feel confident of the relevant family history to collect and of making a basic assessment of risk. • Providing educational outreach has a positive impact on how confident primary care staff feel in dealing with patient queries over familial cancers, particularly in relation to bowel cancer. • Further research is needed to explore the impact of providing this service on other relevant outcomes such as appropriateness of referrals to genetic services.
<p>Acute plastic surgery and burns¹⁷⁵</p>	<p>Telemedicine Introduction into Regional Plastic Surgery Service.</p>	<ul style="list-style-type: none"> • Optimising referral management • Integration of primary and secondary care systems 	<ul style="list-style-type: none"> • Initial <u>retrospective evaluation</u> of 973 referrals • System used for wide variety and high proportion of injuries • Initial resistance overcome by ease of use of the system • Both receiving and referring clinicians reported benefits • <u>Prospective cohort study</u> of 996 patients compared referrals with or without the telemedicine system. • System used for 63% of patients • Significant difference in initial management of patients, 10% more booked directly to Day Surgery Unit. • Decrease in number of occasions patients not accepted due to lack of capacity. • Telemedicine is a valuable method of providing preliminary referral information for injured patients and often significantly modifies their treatment and/or management plan.
<p>Psychiatry in the elderly¹⁷⁶</p>	<p>Consultant liaison</p>	<ul style="list-style-type: none"> • Optimising expertise in primary care • Optimising referral management • Integration of primary and secondary care systems • Timeliness of referral to specialist care 	<ul style="list-style-type: none"> • 1999 - 2004 average annual referral rate was 2.89%. • compared to 0.7% in 1981 and 1.34% in 1989 • Trends indicate increasing rates of referral of older people to consultation-liaison psychiatry services with greater representation of the older old. • Liaison psychiatry services will need professionals trained in old age psychiatry.

174. J. Bethea, J et al., 'The impact of genetic outreach education and support to primary care on practitioner's confidence and competence in dealing with familial cancers', *Community Genetics* (2008), pp. 289-94. [\[link\]](#)

175. D.L. Wallace, D.L., et al., 'Telemedicine for acute plastic surgical trauma and burns', *Journal of Plastic, Reconstructive & Aesthetic Surgery* (2008), pp. 31-6. [\[link\]](#)

176. D. Anderson et al., 'The rising demand for consultation-liaison psychiatry for older people: comparisons within Liverpool and the literature across time', *International Journal of Geriatric Psychiatry* (2011), pp. 1231-5. [\[link\]](#)

<p>General referral¹⁷⁷</p>	<p>Referral accuracy audit</p> <p>Studied content in referral and response letters between primary and secondary care against national guidelines.</p>	<ul style="list-style-type: none"> • Optimising referral management • Timeliness of referral to specialist care. 	<ul style="list-style-type: none"> • Data from 3293 referral and 2468 response letters from 68 general practices and 17 hospitals • Median time referral to response letter was 4 weeks • Future research should be aimed at developing robust strategies to addressing communication gaps reported in this study.
<p>General referral¹⁷⁸</p>	<p>Cochrane Review of interventions</p>	<ul style="list-style-type: none"> • Optimising expertise in primary care • Optimising referral management • Integration of primary and secondary care systems • Timeliness of referral to specialist care 	<ul style="list-style-type: none"> • Reviewed formally designed studies aimed at reducing waiting times for any type of elective procedure. • 8 studies met inclusion criteria, involving 135 GP practices, 7 hospitals, 1 outpatient clinic. • Overall quality of evidence ranged from low to very low. • Interventions involving more accessible services (open access or direct booking/referral) showed some promise.
<p>General referral¹⁷⁹</p>	<p>Systematic review</p> <p>International evidence</p>	<ul style="list-style-type: none"> • Optimising expertise in primary care • Optimising referral management • Timeliness of referral to specialist care 	<ul style="list-style-type: none"> • 140 studies • Interventions were grouped into categories <ul style="list-style-type: none"> • GP education • process change • system change □ patient-focused • There is no 'magic bullet' to managing demand for secondary care services • A whole-systems approach is needed because the introduction of interventions in primary care is often just the starting point of the referral process. • More research is needed to develop and evaluate interventions that acknowledge the role of the patient in the referral decision.
<p>Musculoskeletal¹⁸⁰</p>	<p>Allied professional led services</p> <p>Physiotherapy</p> <p>New service review</p>	<ul style="list-style-type: none"> • Delays in referral to specialist care • Optimising expertise in primary care 	<ul style="list-style-type: none"> • 2 years' data from 2 GP practices • 8417 patient contacts made • Majority managed within primary care • Orthopaedic referrals substantially reduced • 86% of referrals to orthopaedics considered 'appropriate' • Physiotherapists referred to GP in 1% of patients.

177. E. Dinsdale et al., 'Communication between primary and secondary care: deficits and danger', *Family Practice* (2020), pp. 63-68. [\[link\]](#)

178. A. Akbari, et al., 'Interventions to improve outpatient referrals from primary care to secondary care', *Cochrane Database of Systematic Reviews* (2008), p. CD005471. [\[link\]](#)

179. L. Blank et al., 'Referral interventions from primary to specialist care: a systematic review of international evidence', *British Journal of General Practice* (2014), pp. e765-74. [\[link\]](#)

180. F. Downie et al., 'Physiotherapist as an alternative to a GP for musculoskeletal conditions: a 2-year service evaluation of UK primary care data', *British Journal of General Practice* (2019), pp. e314-e320. [\[link\]](#)

<p>Ophthalmology Glaucoma¹⁸¹</p>	<p>Integrated specialisation</p> <p>New referrals evaluated by community optometrists with special interest, using virtual electronic review + validation by consultant ophthalmologist.</p>	<ul style="list-style-type: none"> • Optimising expertise in primary care • Optimising referral management • Integration of primary and secondary care systems • Timeliness of referral to specialist care 	<ul style="list-style-type: none"> • 1733 patients • 47% discharged at assessment, 6% after virtual review. • 3% of those initially discharged, were recalled following virtual review. • At hospital, further 11% discharged after single visit. • The programme is a safe and effective way of evaluating glaucoma referrals in the community and reducing false-positive referrals for glaucoma into the hospital system.
<p>Allergy medicine¹⁸²</p>	<p>GP with Special Interest</p>	<ul style="list-style-type: none"> • Optimising expertise in primary care • Optimising referral management • Integration of primary and secondary care systems • Timeliness of referral to specialist care 	<ul style="list-style-type: none"> • Introducing GPwSI decreased burden on secondary care • Reduced hospital attendances for allergy clinic patients, although waiting times increased. • 2013: 65% of allergy clinic patients attended other hospital services for allergy-related complaints prior to their first allergy clinic appointment. • 2014: 27-37%, maintained in 2016 • Patient satisfaction in clinics very high • Integrated, multidisciplinary service provides a model to improve the unmet allergy need in UK and beyond. • GPwSI model could be applied to other chronic diseases.
<p>Urgent care¹⁸³</p>	<p>Integrated urgent care model</p>	<ul style="list-style-type: none"> • Optimising expertise in primary care • Optimising referral management • Integration of primary and secondary care systems • Timeliness of referral to specialist care 	<ul style="list-style-type: none"> • Ongoing new service is described, results awaited
<p>Psychiatry in the elderly¹⁸⁴</p>	<p>Allied professional led service</p> <p>Nurse-led clinic</p>	<ul style="list-style-type: none"> • Optimising expertise in primary care • Optimising referral management • Integration of primary and secondary care systems 	<ul style="list-style-type: none"> • Audit of new service • Highlights importance of addressing mental health needs in elderly patients admitted to hospital.

181. J. Keenan et al., 'Cambridge community Optometry Glaucoma Scheme', *Clinical & Experimental Ophthalmology* (2015), p. 221-7. [\[link\]](#)

182. I.R. El-Shanawany, C. Wade, and J.A. Holloway, 'The impact of a General Practitioner-led community paediatric allergy clinic: A service evaluation', *Clinical & Experimental Allergy* (2019), pp. 690-700. [\[link\]](#)

183. S. Gnani et al., 'Evaluation of a general practitioner-led urgent care centre in an urban setting: description of service model and plan of analysis', *JRSM Short Reports* (2013) p. 2042533313486263. [\[link\]](#)

184. C.P. Hughes, 'The development of a nurse-led liaison mental health service for older people in Chesterfield, Derbyshire, UK', *Journal of Psychiatric & Mental Health Nursing* (2008), pp. 595-604.

Conceptual Approaches to Improved Interface Working

Polyclinics

For many years, GP surgeries in England have hosted nurses as well as administrative and clerical staff and more recently – under the Additional Roles Reimbursement Scheme (ARRS) – this has expanded to include health visitors, pharmacists, social prescribers, mental health workers and social workers.¹⁸⁵ Furthering this approach to ‘co-locate’ specialist care within primary care settings has been suggested as a strategy to address healthcare delivery fragmentation. Examples include the development of ‘medical homes’ in the USA and Canada, or primary care centres across Europe which co-locate GPs and other healthcare professionals in the same building.¹⁸⁶

The co-location of clinicians and services onto a single site or within a single facility is often associated with the ‘polyclinic’ model.¹⁸⁷ Whilst the concept has been around for many decades, most recently they have been associated in the UK with proposals set out by Lord Darzi in July 2007, in a policy document entitled, *Healthcare for London: A Framework for Action*, which called for the establishment of polyclinics to offer a “far greater range of services than currently offered in GP practices, whilst being more accessible and less medicalised than hospitals”. They would, the proposal suggested:

“offer access to antenatal and postnatal care, healthy living information and services, community mental health services, community care, social care and specialist advice all in one place. They will provide the infrastructure (such as diagnostics and consulting rooms for outpatients) to allow a shift of services out of hospital settings. They will be where the majority of urgent care centres will be located. And they will provide the integrated, one-stop-shop care that we want for people with long-term conditions”.

Whilst there has been a gradual transition to primary care ‘at scale’, this has been heterogeneous, with a variety of models, including super partnerships and GP Alliances emerging. Polyclinics – as set out in this 2007 vision – have not become the default model of general practice. Indeed, when first announced, the proposals were not met with universal acceptance, and proved controversial amongst many GPs, and resulting in the British Medical Association’s ‘Support your Surgery’ campaign in 2008.¹⁸⁸

Research into the co-location of healthcare teams suggests it does not inevitably improve the coordination of services.¹⁸⁹ Indeed, studies of the polyclinic model demonstrate disadvantages to a ‘centralisation’ of primary care, which may not be effective in rural settings where travel distances are often greater. International comparisons show that specialisation of care is higher in polyclinic models than in ‘extended general practice’, with the median number of additional professionals between five and six in many developed countries; while in Russia (which uses a polyclinic model) it may reach over twenty different types of healthcare professional.¹⁹⁰

185. M. Lalani, M. Marshall, ‘Co-location, an enabler for service integration? Lessons from an evaluation of integrated community care teams in East London, *Tower Hamlets Clinical Commissioning Group*, 5 November 2020 [\[link\]](#)

186. B. Schoenmakers, J. Crieckinge, T. Boeve et al., ‘Co-location out of hours primary care and emergency department in Belgium: patients’ and physicians’ view’, *BMC Health Services Research*, 26 March 2021 [\[link\]](#); S. Barsanti & M. Bonciani ‘General practitioners: Between integration and co-location. The case of primary care centers in Tuscany, Italy’, *Health Services Management Research*, Vol. 32(1) 2-15, (2019) [\[link\]](#)

187. ‘The Lord Darzi Review: A Framework for Action’, *Nuffield Trust*, July 2007 [\[link\]](#). For its historical precedents in England: V. Berridge, ‘Polyclinics in London: historical issues’, *London Journal of Primary Care*, (May 2008) [\[link\]](#)

188. N. Tiwari ‘Where is the money for the Darzi Centres coming from?’, *British Medical Journal*, May 2008 [\[link\]](#); Z. Kmietowicz, ‘Polyclinics are not the answer for NHS In London’, *British Medical Journal*, October 2007 [\[link\]](#); ‘Doctors warn of premature move to polyclinics’, *British Medical Journal*, March 2008 [\[link\]](#)

189. D. Bramwell, K. Checkland, P. Allen, S. Peckham, ‘Moving Services out of hospital: Joining up General Practice and community services?’ *Policy Research Unit in Commissioning and the Healthcare System*, (August 2014) [\[link\]](#)

190. P. Groenewegen et al. ‘Primary Care practice composition in 34 countries’, *Health Policy* (December 2015), [\[link\]](#)

Excessive specialisation has implications, “destroying the polyclinic’s original design...based on teamwork, coordination and continuity of care and resulted in a fragmented provision of services with the duplication of specialists in outpatient and inpatient settings”.¹⁹¹ A study from the King’s Fund, published a year after Darzi’s own proposals suggested that a hub-and-spoke model, where the polyclinic acts as a central resource base for a co-ordinated network of practices, is “likely to be more effective”.¹⁹²

Moreover, it is not necessarily a given that co-location produces a reduction in demand in acute (and more expensive) healthcare settings. In Belgium, GP Cooperatives have aimed to improve working conditions for out of hours primary care and to reduce the number of low acuity emergency visits. Eighty cooperatives have been established since 2003, operating as walk-in centres for unplanned out of hours care, and whilst a fast service follows, with referral optimisation and buy-in from clinicians, this investment has not led to a decrease in the number of emergency contacts.¹⁹³ A recent evaluation from Tower Hamlets of a community care team integration initiative meanwhile, concludes that co-location should not be “seen as a silver bullet for service integration”.¹⁹⁴

As the literature review demonstrates there are clearly examples which demonstrate the benefits of physically co-locating clinicians – particularly when this is temporary, such as through outreach clinics. In GP practices across Wandsworth, special paediatric clinics have been established with the aim of speeding up treatment and reducing follow-up appointments. So-called ‘Together clinics’ which were launched in 2017 as a pilot, have now been rolled out across six GP practices. GPs can book children from birth to eighteen years old directly into the clinic which takes place in the practice. Patients can be seen for the same conditions as they are routinely in general acute paediatric clinics at St George’s Hospital – everything from reflux, concerns about weight or head shape in babies, to headaches or abdominal pain in older children.¹⁹⁵ An evaluation published in 2019 showed that the model achieved improved flow and management of paediatric problems in primary care. It also revealed benefits to inter-professional learning as well as child and family satisfaction. The model was “cost neutral for commissioners and providers”.¹⁹⁶

A Polyclinic imposes a particular form of integration across many specialties as a starting point. On the other hand, an Integrated Care Board could make decisions on integration based on the local realities of the specific needs of the population, the existing workforce in both Primary and Secondary care and financial factors. This might use a variety of integrations across a variety of specialties. Flexibility for ICB decision making is key in facilitating the best integration overall in each area.

191. Ibid.

192. C. Imson, ‘Under One Roof: Will Polyclinics deliver integrated care?’, *The King’s Fund* (2008) [\[link\]](#)

193. B. Schoenmakers, J. Cirekinge, T. Boeve et al., ‘Co-location of out of hours primary care and emergency department in Belgium: patients’ and physicians’ view’, *BMC Health Services Research*, 26 March 2021 [\[link\]](#)

194. M. Lalani, M. Marshall, ‘Co-location, an enabler for service integration? Lessons from an evaluation of integrated community care teams in East London’, *Tower Hamlets Clinical Commissioning Group*, 5 November 2020 [\[link\]](#)

195. Bringing children’s care closer to home Together, *South West London Integrated Care System*, [Accessed 16/6/2023] [\[link\]](#)

196. M. Leach, L. Neal, T. Coffey, ‘Together clinics: joint integrated clinic between a paediatric consultant and GP in primary care – impact on paediatric care’, *British Medical Journal*, 13 May 2019 [\[link\]](#)

Box 3 – Case Study: Primary Care Plus (PC+), Maastricht, Netherlands

A pilot study called Primary Care Plus (PC+) undertaken in 2013/14 explored the feasibility of specialist consultations across five specialties (orthopaedic surgery, dermatology, neurology, cardiology and internal medicine) in ten GP practices across Maastricht-Heuvelland in the Netherlands.¹⁹⁷

An ‘internist’ provided consultations with patients and participated in multi-disciplinary meetings within GP practices. In one GP practice, the internist was present every other week and in another weekly. Besides general internal medicine, the internist focused on sub-specialties, including gastroenterology, rheumatology, nephrology, endocrinology and geriatric care. All other subspecialties of internal medicine were excluded (e.g., haematology, oncology, pulmonology and immunology).¹⁹⁸ The PC+ intervention strengthened collaboration, direct communication and knowledge transfer between the GPs and internists.¹⁹⁹ In total 81 GPs from 55 practices (affiliated with the insurer, ZIO) were able to refer patients to PC+ consultations. The GP remained responsible for the patient throughout their care in PC+.²⁰⁰ The study provided indications that PC+ had the potential to achieve substitution of care, with high patient and stakeholder satisfaction, however, PC+ was not continued due to cost constraints.

Results: In total 4536 patients were seen in PC+. 3132 (69.0%) were referred back to the general practitioner (GP), whereas 1275 (28.1%) were referred to secondary care. Referral information of 130 (2.9%) patients was unknown. Large differences in referral numbers to secondary care (after PC+ consultation) were observed between specialties (from 8.6% (gynaecology) to 43.8% (orthopaedic surgery)), specialists (14.5 to 65.2%) and diagnosis groups (11.1 to 93.4%)

Conclusions: Evaluations recommended further research to optimise substitution initiatives like PC+.²⁰¹ Van Hoof et al. state that in-house medical specialists at a GP practice may lead to overuse of care due to close working relations.²⁰² They mention that this may result in a greater number of referrals because of the relatively low threshold for GPs to refer patients to an ‘in-house’ specialist. They are in favour of “independent PC+ centers” as a result.

Table 1 Number of patients visiting Primary Care Plus for the different medical specialties (N = 10,029)

Medical specialty	Number of patients % (N)	Start in PC+
Dermatology	29.4% (2952)	January 2015
Orthopaedics	17.0% (1708)	January 2015
Internal medicine	2.9% (291)	January 2015
Neurology	6.4% (638)	January 2015
Otolaryngology	18.1% (1815)	January 2015
Ophthalmology	10.4% (1044)	January 2015
Rheumatology	5.6% (559)	January 2015
Paediatrics	0.5% (50)	November 2015
Gynaecology	6.6% (659)	December 2015
Urology	1.5% (149)	March 2016
Back pain consultation facility	1.6% (163)	November 2016

Source: E. van den Bogaart, M. Kroese & M. Spreeuwenberg, ‘Reorganising dermatology care: predictors of the substitution of secondary care with primary care’, *BMC Health Services Research* (2020), p. 3 [\[link\]](#)

197. T. Quanjel et al., ‘Substituting hospital-based outpatient cardiology care: The impact on quality, health and costs’ *Public Library of Science*, 31 May 2019 [\[link\]](#)

198. T. Quanjell et al., ‘Does an in-house internist at a GP practice result in reduced referrals to hospital-based specialist care?’ *Scandinavian Journal of Primary Health Care*, 28 Jan 2018 [\[link\]](#)

199. J. Powell, ‘Systematic review of outreach clinics in primary care in the UK’, *Journal of Health Services Research & Policy* (2002) [\[link\]](#)

200. P. Smeele et al., ‘Substitution of hospital care with Primary Care Plus: differences in referral patterns according to specialty, specialist and diagnosis group’ *BMC Family Practice*, 11 June 2019 [\[link\]](#)

201. Ibid.

202. S. Hoof, M. Kroese, M. Spreeuwenberg, et al., ‘Substitution of hospital care with primary care: defining the conditions of primary care plus’, *International journal of integrated care*, 13 April 2016 [\[link\]](#)

Community Clinics

Community clinics are developed either by GPs (often with Extended Roles), or by consultants ('outreach' clinics) and are often staffed by multi-disciplinary teams. For instance, The Primary Care Psychotherapy Consultation Service in City and Hackney is based on a multidisciplinary team of mental health professionals, assisting GPs to manage complex patients who may have medically unexplained symptoms or comorbidities. The model has reduced service use across both primary care and A&E.²⁰³ A review of seventy-three outreach clinic interventions shows that specialist outreach services may improve access to care, quality of care, health outcomes and patient satisfaction and result in less use of hospital services.²⁰⁴

These services need not be delivered in-person to be effective, virtual multi-disciplinary clinics also deliver positive results. Only 22% of obstructive sleep apnoea cases are treated and diagnosed, most often in secondary care settings.²⁰⁵ A recent study has evaluated a monthly clinic run from within a GP surgery, supported by a 'virtual multidisciplinary team' and led by a hospital specialist team. Compared with a traditional hospital pathway, the study suggests a significant reduction in the time taken from referral to perform a sleep test (29, compared to 181 days), to make a diagnosis (40 to 230 days) and to commence treatment (127 to 267 days). Patient satisfaction was higher and cost savings observed of up to £290 per patient.²⁰⁶ A review article by Price *et al* shows existing models of shared care, including where specialists work in hospital-based outreach clinics, organised by GPs, have demonstrated reductions in referral rates: it concludes that current research supports the management of certain chronic health conditions in primary care, based on the integration of GPs and specialists.²⁰⁷

203.A. Majeed, 'Primary care: a fading jewel in the NHS crown', *London Journal of Primary Care*, Sep 28 2015 [[link](#)]

204.R.L Gruen, T.S. Weeramanthri, S.S Knight *et al*. 'Specialist outreach clinics in primary care and rural hospital settings' *Cochrane Database System* (2004) [[link](#)]

205.N. Devani *et al*., 'Integrated diagnostic pathway for patients referred with suspected OSA: a model for collaboration across the primary-secondary care interface', *British Medical Journal Open Respiratory Research* (2020) [[link](#)]

206.Ibid.

207.E. Price *et al*., 'Organisation of services for people with cardiovascular disorders in primary care: transfer to primary care or to specialist-generalist multidisciplinary teams?', *BMC Family Practice* (2014), p. 158 [[link](#)]

Box 4 – Case Study: MISSION-ABC, Research and Innovation Department, Queen Alexandra Hospital, Portsmouth²⁰⁸

MISSION-ABC (Modern innovative solutions to improve outcomes in asthma, breathlessness, and chronic obstructive pulmonary disease) is clinic model that aims to reduce the length of the assessment pathway, bring it care closer to home, and to standardise the quality of management for patients with respiratory disease. As well as a physiotherapist, the team includes doctors, nurses, physiologists, a dietitian, smoking cessation officer and a psychologist. The team take over a GP surgery for half a day and see at-risk patients on a ‘carousel’ basis so each patient is seen by every specialist.²⁰⁹

Participants undergo assessments involving spirometry, comorbidity questionnaires, breathing patterns and inhaler technique and are assessed alongside a specialist medical review. A personalised self-management (or action) plan with inhaler technique information is written with participants before they leave the clinic.

Participants receive an automated telephone call twice a week on pre-determined days. The call is from a script which varies depending upon the participant’s underlying respiratory condition, and includes a series of questions to assess their current symptom burden.

An observational study sponsored by Portsmouth Hospitals University NHS Trust evaluated its impact: the reduction in exacerbations, unscheduled GP appointments and admissions, demonstrated overall cost savings across all groups. However, this was greater among those targeted by the telehealth intervention. Per exacerbation, there was a direct saving of £1.74 and £4.59 in the control and telehealth cohorts respectively. For hospital admissions, there were direct cost savings of £205.69 and £580.76 per participant in control and telehealth cohorts. There was a reduction in overall costs for the telehealth intervention across all five measures of unscheduled care use. The largest savings were seen within hospital admissions and unscheduled GP visits. The asthma groups showed larger reductions in costs associated with unscheduled GP visits than COPD.

Overall, the addition of telehealth proved a cost-effective measure, saving an average £444.35 per participant.²¹⁰

Joint & Group Consultations.

The possibilities of joint consultations (both in-person and remote) for improved care coordination and to improve referral activity have long been prospected. A study appearing in the *British Medical Journal* in 1996 reflected: “teleconferenced consultations for routine outpatient referrals with joint participation of general practitioner were feasible. These may have an important potential benefit for improving communication between primary and secondary care.”²¹¹ A more recent study found joint teleconsultations can promote continuity of care for patients across the primary/secondary care interface.²¹² A small-scale study in the Portuguese national health service suggests that joint teleconsultations can promote continuity for patients. It was noted that active coordination between physicians and a delineation of roles would be required to manage those patients who would most benefit from shared care, meaning it is essential that patient triage is optimised. In the study, GPs felt that their role was to bring patient-specific knowledge which could supplement the cardiologists’ condition-specific expertise. However, GPs felt the need to renegotiate their roles in the teleconsultations when they saw themselves in a new situation, together with another physician and the patient.²¹³

For certain conditions and specialties, there may be possibilities to expand the provision of group consultations, or shared medical

211. R. Harrison, W. Clayton et al., ‘Can telemedicine be used to improve communication between primary and secondary care?’ *British Medical Journal*, 30 November 1996 [link]

212. A. Maria, H. Serra et al., ‘Interaction at the primary-secondary care interface: Patients’ and physicians’ perceptions of teleconsultations’, *Digital Health*, 28 November 2022 [link]

213. A. Scott, ‘Economics of general practice’, *Handbook of Health Economics* (2000) [link]

208. ‘Mission Toolkit’, *Queens Alexandra Hospital Portsmouth*, [Accessed 16/6/2023] [link]

209. ‘Physio makes respiratory MISSION possible’, *CSP Annual Conference*, [Accessed 16/6/2023] [link]

210. L. Fox, E. Heiden, M. Chauhan et al., ‘Evaluation of telehealth support in an integrated respiratory clinic’, *Primary Care Respiratory Medicine*, 11 November 2022 [link]

appointments (SMAs) – a healthcare delivery method with the potential to improve chronic disease management and preventive care.²¹⁴ This is a model which has been trialled in general practice across a range of other conditions including asthma, hypertension and prenatal care.²¹⁵ There is a consensus in the academic literature at present however, that further evaluation is required to define the most effective model of SMAs—and how and where they may be most usefully implemented in practice.²¹⁶

What the Evidence Suggests

1. There is evidence of long term, widespread concern regarding the functionality of the primary-secondary interface and long-standing and wide-ranging efforts to improve it.
2. **There is an implementation challenge, rather than a lack of ideas about how the interface can be improved.**²¹⁷
3. **Issues impeding interface working are well known:** entrenched workforce cultures; limited opportunities for cooperation and communication owing to pressure on the clinical service; limited opportunities for inter-professional education; physical space constraints (across the NHS estate); financial and contractual issues (or a lack of adequate incentives); and inadequate information sharing.²¹⁸
4. **Many of the enablers of an effective interface are the enablers of integrated care more broadly.**²¹⁹ Synchronised changes; well-resourced teams; agreement and clear articulation of roles and responsibilities; a willingness among healthcare professionals to collaborate and innovate.²²⁰
5. **Inter-personal and cultural factors are significant.** For instance, an interface-focused educational intervention carried out across primary and secondary care centres in the NHS Highland Health Board area improved awareness of colleagues' working patterns and workloads, leading to improved understanding and outcomes.²²¹
6. Planned integration of primary and secondary care at interface level must be part of the solution.
7. There is ambition to expand academic primary care, but this requires additional support and incentives.
8. As a research topic in its own right, interface interventions require dedicated, further study.

214.K. Wadsworth, T. Archibald, A. Payne et al., 'Shared medical appointments and patient-centred experience: a mixed-methods systematic review' *BMC Family Practice*, 8 July 2019 [\[link\]](#)

215. See L. Swaithe, Z. Paskins, H. Duffy et al., 'Experience of implementing and delivering group consultations in UK general practice: a qualitative study, *British Journal of General Practice* (2021) [\[link\]](#). For the example of a diabetes clinic, see C. Papoutsis, D. Hargreaves, A. Hagell et al., 'Implementation and delivery of group consultations of young people with diabetes in socioeconomically deprived, ethnically diverse settings', *BMC Medicine*, 25 November 2022 [\[link\]](#)

216.B. Hayhoe, 'Shared Medical Appointments', *British Medical Journal*, 30 August 2017 [\[link\]](#)

217.C. Nicholson, C. Jackson & J. Marley 'A governance model for integrated primary/secondary care for the health-reforming first – results of a systematic review' *BMC Health Services*, 20 December 2013 [\[link\]](#); C. Hughes, 'The development of a nurse-led liaison mental health service for older people in Chesterfield, Derbyshire, UK', *Journal of Psychiatric Mental Health Nursing*, (September 2008) [\[link\]](#)

218.E. Fraher & B. Brandt 'Toward a system where workforce planning and inter-professional practice and education are designed around patients and populations not professions', *Journal of Interprofessional Care* (2019) [\[link\]](#); S. Campbell, J. Robinson, A. Steiner, D. Webb, M. Roland, 'Improving the quality of mental health services in Personal Medical Services pilots: a longitudinal qualitative study' *Qual Saf Health Care*, April 2004 [\[link\]](#) and see also S. Hugh, M. O'Mullane, I. Perry, C. Bradley, 'Barriers to, and facilitators in, introducing integrated diabetes care in Ireland: a qualitative study of views in general practice.' *BMJ Open*, August 19 2013 [\[link\]](#)

219.I. Litchfield, B. Kingston, D. Narga, A. Turner, 'The move towards integrated care: Lessons learnt from managing patients with multiple morbidities in the UK, *Health Policy*, 126 (8), pp. 777-785 25 May 2022 [\[link\]](#)

220.O. Kozłowska, A. Lumb, G. Tan, R. Rea, 'Barriers and facilitators to integrating primary and specialist healthcare in the United Kingdom: a narrative literature review.' *Future Health Journal*, Feb 2018 [\[link\]](#)

221.R. Sampson, T. MacVicar, P. Wilson, 'Improving the primary-secondary care interface in Scotland: a qualitative exploration of impact on clinicians of an educational complex intervention' *BMJ Open*, June 2017 [\[link\]](#)

Chapter 3 – The Future of the Primary-Secondary Interface

This chapter sets out a vision for improved interface working across primary and secondary care. It considers both the near (next 12-24 months), and longer-term (next 3 years+). These proposals look to create the conditions required to enable a future vision for primary care, as established in last year's 'Fuller Stocktake', and in the Government's recently published *Delivery plan for recovering access to primary care*, which identifies interface improvements as a key means to reduce inappropriate GP workload and to enhance care delivery overall.

Whilst this report makes a range of recommendations, implementable in the near-term, we also propose two longer-term shifts, as essential drivers of improved working across the primary-secondary interface.

1. **The creation of dedicated 'interface specialist' roles** (with the development of training and career pathways for a range of professionals to participate, including doctors, nurses and pharmacists);
2. **A focus on enhancing research activity across primary and community care** as a high-impact enabler of improved interface working.

The Importance of Working Cultures

From the perspective of many NHS staff and their experience of organisational change, successful transformation often boils down to culture: that is the ethos, professional relationships and effective clinical leadership as significant determinants of success.²²² A qualitative study from 2016 identified a number of themes identified with effective interface working, emphasising the importance of communication, conduct (referring to perceived inappropriate workload transfer to general practice), relationships (between clinicians and between clinicians and patients), and unrealistic expectations (clinicians expressing idealistic hopes of what their colleagues 'on the other side' could achieve).²²³ Our review of the evidence makes clear the significance of these factors.

Partnerships and working groups which seek to enhance interface working have been commonplace across the NHS for many years, but have been largely informal: a monthly walking group for GPs and consultants in South Tees; the establishment of local fellowships to enable GPs to gain

222. See a recent review from The King's Fund which identifies this as a key enabler of change: B. Baird, L. Tiratelli, A. Brooks, K. Bergman, 'Levers for change in primary care: a review of the literature', *The King's Fund*, (April 2022) [\[link\]](#). See also H. Allan, S. Brearley, R. Byng et al., 'People and Teams Matter in Organisational change: Professionals' and Managers' experience of Changing Governance and Incentives in Primary Care', *Health Services Research*, (February 2014) [\[link\]](#); Madeleine Knight, 'Doctors perspectives of Organisational mergers', *British Medical Association Health Policy & Economic Research Unit*, June 2012 [\[link\]](#). One review calls these 'collaborative competencies': M. Janssen, M. Sagasser, C. Fluit, 'Competencies to promote collaboration between primary and secondary care doctors: an integrative review', *BMC Family Practice* (2020) [\[link\]](#)

223. R. Sampson et al., 'The relationship between GPs and hospital consultants and the implications for patient care: a qualitative study', *BMC Family Practice*, 14 April 2016 [\[link\]](#)

experience in a particular clinical specialty.²²⁴

If we were to formalise these approaches, we foresee considerable advantages. GPs could be presented with the opportunity engage directly with colleagues in secondary care about guidelines, pathways and optimising discharge. There are likely to be positive results for morale too, given opportunities to break from day-to-day sessions or clinics.²²⁵

Some systems have begun to provide greater clarity over the principles behind improved interface working. A Consensus Document published by the Cheshire and Merseyside Partnership is illustrative of the approach and proves a model which could be applied more widely.²²⁶ It includes clear instructions for all: “whoever requests a test is responsible for the results of that test”; make effective use of the Discharge Medicines Service; facilitate discussions with the integrated care board about the development of community clinics. We are of the view that all systems should look to emulate this approach.

Recommendation. Integrated Care Boards (ICBs) should encourage the development of Interface Working Groups (where they do not already exist), drawing on the example of their development across Health Boards in Scotland. Consensus statements should be established, setting out clearly defined responsibilities for the management of patients across the interface. Groups should bring together key stakeholders from across primary, secondary, and community care to analyse referral activity and to develop tailored ‘referral support’ across their populations.²²⁷ The recent publication of NHS Cheshire and Merseyside’s Consensus Statement on the interface is an example of how this may be done.²²⁸

Setting the National Strategy

Whilst enhancing relationships between professionals across provider settings is critical to affecting positive change, our review of the evidence also suggests there are a range of interventions which would most helpfully be examined and led from central Government which draw upon clinical expertise and patient input, but have ministerial oversight and sponsorship. We suggest the development of an Interface Improvement Initiative, whose work should involve identifying the initiatives and the policies which could make the greatest difference to improved interface working in the short term. Suggestions are detailed throughout this chapter, but include approaches to optimise existing services, such as ensuring that the Discharge Medicines Services is used more consistently across NHS trusts, to conducting a review into opportunities for patients with certain long-term or chronic conditions to be able to self-refer (back) to specialist care.

224.A. Rimmer, ‘Consultants and GPs walk and work together’, *British Medical Journal*, 30 July 2015 [\[link\]](#); ‘Hearing each other: narrowing the gulf between primary and secondary care’, *The Doctor*, 17 August 2022 [\[link\]](#)

225. Tweet, *Pulse Today*, 7 June 2022 [\[link\]](#)

226. Consensus on the Primary Secondary Care Connection, *Cheshire and Merseyside Partnership*, [Accessed 28/3/2023] [\[link\]](#)

227. U. Ekweh, J. Dean, ‘Improving care planning and communication for frail older persons across the primary-secondary care interface’ *Future Health Journal*, (October 2020) [\[link\]](#)

228. Consensus on the Primary and Secondary Care Interface, *NHS Cheshire and Merseyside*, 30 June 2022 [\[link\]](#)

Recommendation. The Department of Health and Social Care (DHSC) and NHS England (NHSE) should establish an Interface Improvement Initiative, consisting of a small, 'joint committee' of officials overseen by ministers, tasked with identifying national-level high-impact measures to improve interface working. It should ensure that patient / service user perspectives are embedded in its working. This menu of measures can then be used at the ICB level Interface Working Groups.

Recommendation. ICBs should report annually on their progress in improving interface working and in implementing initiatives included in the recent Academy of Medical Royal College document, *General practice and secondary care: Working better together*. Each ICB will have chosen its key endpoint statistics in deciding how to impact on the Interface in their system. These could be specialty by specialty and might include reduced waiting times, reduced incomplete referrals, reduced A&E usage, decreased patient GP clinic attendances, etc.

Recommendation. NHSE should compile and publish data relating to incomplete referrals at national, ICS and trust levels. This should be published on a monthly basis to enable improved monitoring of pathways and to better target support where required. This measure should seek to reduce the prevalence of 'hidden' waiting lists.²²⁹

Recommendation. NHSE should establish national guidance to optimise the use of Advice and Guidance (A&G), reducing inconsistency in its use and boosting transparency for service users.

Recommendation. NHSE should incentivise greater uptake of clinical decision support systems (CDSSs) across general practice and hospital settings. To enable this, effective integration with Electronic Patient Records will be required, as will close working with Royal Colleges to improve understanding and define best practice in relation to their use.²³⁰ This will also require greater public information about their use as a tool in supporting professionals. To build confidence, the Transformation Directorate should work closely with the Multi-Agency Advisory Service to determine a defined set of accredited tools which should be nationally scaled.

Supportive Services: Improved Tools for Interface Working

An area where greater direction from 'the centre' would be advantageous is in setting new expectations around transparency for patients in care navigation.²³¹ "Informational continuity" - which means ensuring a patient's information is up-to-date and accurate and that their records 'travel with them' across whichever NHS setting is used - is greatly valued by patients, but can be under-appreciated by staff.²³²

There is a significant opportunity to boost transparency around the patient journey – such as through upgrades to the My Planned Care platform (via the NHS App) which would allow patients to see the contact information for those responsible for key aspects of their care once they have been referred, or once a test or investigation has been scheduled. This information should be updated in real-time and should include clear point(s) of contact.

231. B. Allen, 'Rescued by a Reception Revolution?', *British Journal of General Practice*, May 2022 [[link](#)]

232. R. Sampson, J. Cooper et al., "Patients' perspectives on the medical primary-secondary care interface: systematic review and synthesis of qualitative research", *British Medical Journal*, October 15 2015 [[link](#)]

229. R. Sampson, R. MacVicar & P. Wilson, 'Improving the primary-secondary care interface in Scotland: a qualitative exploration of impact on clinicians of an educational complex intervention', *British Medical Journal*, Vol. 7, No. 6 (2017) [[link](#)]

230. T. Porat, B. Delaney, O. Kostopoulou, 'The impact of a diagnostic decision support system on the consultation: perceptions of GPs and patients', *BMC Medical Informatics and Decision Making*, 2 June 2017 [[link](#)]

Recommendation. Commitment to boost transparency for patients as their care is managed across the interface. Enable patients to more easily ‘track’ who is responsible for their care when they are being supported by a number of different providers, via additions to the My Planned Care Platform.

Communication between healthcare professionals, such as GPs and hospital consultants remains a two-way problem. Regrettably, one still hears (and reads) anecdotal evidence of GPs struggling to get through to hospital departments on the phone, or hospital departments digging to find the right bypass number for the relevant GP surgery. This must become a thing of the past.²³³ Insufficient information at referral can result in repeat consultations and delayed investigations or interventions. Insufficient or delayed information from a consultant to a GP can mean that the GP is left with a substantial ‘information gap’. Trust websites – in particular – should include more effective ‘directories’ of the services, personnel and expertise available so that – for instance – GPs are able to more swiftly draw upon ‘specialist input’ or to communicate with the correct personnel. There are also remain great opportunities to make the NHS App, both an effective patient-facing tool, but also an effective ‘back channel’ for clinicians to be able to communicate seamlessly.

It is however important not to underestimate the current extent of the communications (and wider IT transformation) challenge across the NHS. The Royal College of General Practitioners reports that 65% of general practice staff say the ability of their IT systems to exchange information with secondary care is not fit for purpose or of an acceptable standard.²³⁴

It is equally important however not to underestimate how critical effective data sharing and inter-operable systems will be to the goal of achieving an improved interface, with both the technical and physical infrastructure required to deliver the expanded (or amended) scope of clinical practice we detail later in this chapter.²³⁵ The benefits are clear: enabling a whole-system approach to manage patient and population risk; enabling acute, improved inter-professional communication modalities; primary and community care providers to have access to accurate and detailed clinical information to inform decision-making, such as medication changes.²³⁶ The ‘interface specialist’ roles (profiled in greater detail later this chapter) can only be effective and properly supported through the effective integration of communication functions between GP surgeries, community pharmacy and hospital-based specialist teams.

A recent pilot project in Oxford is instructive - profiling an intervention which would substantially benefit interface working, but also revealing the challenges of effective implementation. One aim of the pilot has been to allow hospital doctors to remotely book patients for investigations across community settings, bypassing the need for GPs to perform the task, thereby reducing workload.²³⁷ A new digital solution (CareAware Connect) was introduced to link GP practices with an Electronic Patient Record (EPR) being used across secondary care settings.²³⁸ In the study, clinicians offered telephone/video consultations to suitable patients and were able to request blood tests on EPR. Patients would then be informed

233. Tweet, *Neuro_Matt*, 30 August 2022 [\[link\]](#)

234. Fit for the future: GP Pressures 2023, *Royal College of General Practitioners*, (March 2023) [\[link\]](#) (p.7)

235. C. Jackson, D. Askew, C. Nicholson, P. Brookes, ‘The primary care amplification model: taking the best of primary care forward’, *BMC Health Services Research*, 21 December 2008 [\[link\]](#)

236. J. Cumming, ‘Integrated care in New Zealand’, *International Journal of Integrated Care*, 2011 [\[link\]](#)

237. ‘End the dysfunctional primary-secondary care interface to improve GP access’, *Pulse today*, 23 November 2022 [\[link\]](#)

238. ‘Digital integration at primary-secondary care interface to streamline blood tests’, *Q Health*, [Accessed 28/3/2023] [\[link\]](#)

of the need for a test (by email or text). GP practice phlebotomists would then use the CareAware connect device to scan a unique barcoded identifier card (each patient will be provided with one) to print EPR requests labels. Blood samples tagged with EPR labels will be sent to Oxford University Hospitals for processing. The results are returned to the requesting clinician and to patients via patient portal. The integration of the new technology (CareAware) required management approval from the participating hospital trust, and approvals were delayed by over six months due to wider clinical service pressures. This demonstrates some of the challenges in aligning processes across providers, and of the way in which wider service pressures can derail beneficial transformation projects.

Box 5 below profiles a six-month initiative undertaken across the Rotherham, Doncaster and South Humber NHS Foundation Trust to improve communication across its community service teams, via the use of tools developed by the digital health provider, Accurx, which have demonstrated cost savings to the trust and significant improvements to communication capabilities of its community service teams.

Box 5 - Rotherham, Doncaster and South Humber NHS Foundation Trust (RDaSH)



Rotherham Doncaster and South Humber

NHS Foundation Trust

RDaSH completed a six-month pilot in December 2022 to digitise processes and patient experiences across eight community service teams. The pilot aimed to improve communication between primary and secondary care services, as well as community teams ranging from podiatry, epilepsy and diabetes with patient messaging, video consultations and direct messages to a patient's GP.²³⁹ The scheme enabled patient messaging through SMS or email to send documents, letters, links, surveys and receive text/photo responses. Community teams also adopted video consultations for individual and group sessions, as well as a tool to send messages and documents directly to a patient's GP. The pilot showed that digital letters could save at least £50,000 a year by removing paper appointment reminders, letters and leaflets.²⁴⁰

Recommendation: NHS England should adapt the Digital Care Services catalogue to commission enhanced digital communication capabilities to enable improved interface working.²⁴¹

This procurement framework should enable commissioners to purchase high-quality digital solutions which enable both clinician-patient and clinician-clinician messaging, to schedule reminders, enable image sharing and video consultation capabilities; enable hospital staff to book patients directly for investigations across relevant primary care and community provider settings (patients' GP practices to be informed but would not necessarily lead on booking) and integrate with NHS Service Finder to ensure more seamless and direct clinician-clinician communication.²⁴²

239. 'Rotherham, Doncaster and South Humber community teams pilot patient communication tech', *Health Tech Newspaper*, December 13 2022 [[link](#)]

240. Better patient experience and improved efficiencies: our recent pilot with RDaSH, Accurx, [Accessed 28/3/2023] [[link](#)]

241. Digital Care Services catalogue, *NHS Digital*, [Accessed 16/6/2023] [[link](#)]

242. NHS Service finder [[link](#)]

A Shift to Shared Care?

At the highest level of abstraction, there is a need to expand ‘value chain thinking’ across the NHS. According to the academics Porter and Lee who advance this case, health systems need “to understand the entire value chain for their key patient populations and optimize the entire process — not just the processes under their immediate control.”²⁴³ The lack of “value chain thinking” can be:

*“reflected in the jumbled layout of the sites where activities are carried out... these facilities are not designed to enable efficient coordination of patient care. The architecture reflects a view of health care in which individual clinicians perform individual activities, without consideration of how each activity fits in the overall process of delivering care”.*²⁴⁴

Box 6 profiles the development of a ‘shared referral pathway’ at Mid Yorkshire Hospitals NHS Trust. A ‘shared referral pathway’ entails the joint management of patient care; a dedicated attempt at closer cooperation between providers to pool resources and personnel to actively manage referrals between primary and secondary care. It can be regarded as a shared approach or system for managing communication and processes. This is one example of service transformation which might be regarded as ‘value chain thinking’, a different approach to service design which recognises the patient journey holistically and clinical processes ‘end to end’.

Box 6 – Case Study: Mid Yorkshire Hospitals NHS Trust & Shared Referral Pathways

- Mid Yorkshire Hospitals NHS Trust’s cardiology department was the first speciality at the trust to introduce a “shared referral pathway” in July 2020.
- When referrals are generated in primary care on the eReferral System, the details from secondary care are pulled into a referral template and sent with the referral to ensure the patient is booked into an appointment at MYHT with the right clinic and consultant first time, reducing the administrative burden of any further post-referral clinical triage.
- The initiative resulted in a 30 per cent increase in secondary care support provided to GP referrals in the speciality.
- The number of routine GP referrals to secondary care however reduced by 70 per cent; the number of eConsultations rose by 50 per cent.
- Similar trends were observed across other specialities that have rolled out a shared referral pathway, such as General Paediatrics and Respiratory medicine.²⁴⁵

243.M. Porter, J. Nabo & T. Lee ‘Value Chain Management to Implement Post-Covid 19 Health Care Strategy, *New England Journal of Medicine*, October 26 2021 [\[link\]](#)

244.Ibid.

245.B. Lawman, ‘The shared referral pathway at Mid Yorkshire NHS: a joined-up approach’, *Hospital Times*, 6 July 2021 [\[link\]](#)

Recommendation. Shared Referral Pathways (SRPs) should become standard practice. SRPs which proactively pool primary and secondary expertise and information (reflected in joined-up records and information for the patient) should become standard practice.²⁴⁶

Recommendation. ICBs should play a key role in supporting the expansion and commissioning of ‘community clinics’ where ‘specialist input’ can deliver the most significant returns – both in value for money, improved waiting times for patients and in clinician & patient satisfaction. We foresee particular opportunities to commissioning outpatient clinics differently, whereby ‘at scale’ primary care providers may be particularly well suited to host clinics which enable consultant input alongside GPs, nurse specialists and allied health professionals.

Dealing with Hospital Discharge

The content and quality of hospital discharge communications can be variable due to inadequate or inaccurate information, particularly for patients with complex clinical problems or who have endured long hospital stays. E-discharges are usually completed by junior doctors, advanced nurse practitioners (ANPs) or physician associates (PAs). Some may have had little training and may rarely receive effective supervision or feedback. One study of discharge procedures at a large hospital found a largely one-way communication system structure and a low level of hospital stakeholder insight into recipient GP needs. The authors proposed “more open lines of communication and shared records might enable greater collaboration to share feedback and resolve informational deficits”. Teaching sessions, it suggested and assessments for medical students and junior doctors led by GPs could help to instil the importance of detail and nuance when using standardised communication templates.²⁴⁷ E-discharge workshops with GPs have been found to be effective in improving the overall quality of summaries.²⁴⁸

Looking ahead, there may be opportunities for the automatic generation of discharge summaries to reduce the burden on medical practice, but current evidence does not suggest this is currently feasible without further research. The results of one study suggest that research efforts must be made to establish an optimal interaction between humans and machines the efficient authoring of discharge summaries by incorporating generated drafts and post-editing assistance.²⁴⁹

There are also considerable opportunities to optimise the use of the Discharge Medicines Service (DMS). Based on a review of the extant literature however, it is clear that its use varies greatly by geography and, whilst no standard criteria has been established by through which trusts can determine its use. Therefore, NHS England should develop guidance which clarifies a set of objective criteria for patients eligible to use the service, with the aim of reducing local variability and to enable more effective messaging to the public (and professions). The aim should be to make this a standard part of the discharge process.

247. N. Boddy, S. Barclay, T. Bashford and J. Clarkson ‘How can communication to GPs at hospital discharge be improved? A systems approach’ *BJGP Open*, (March 2022) [[link](#)]

248. G. Davies, S. Kean, I. Chattopadhyay, ‘Improving the quality of electronic discharge summaries from medical wards: A quality improvement project’, *Royal College of Physicians: Future Healthcare Journal*, March 2021 [[link](#)]

249. K. Ando, T. Okumura et al., ‘Is artificial intelligence capable of generating hospital discharge summaries from inpatient records?’, *PLOS Digital Health*, 12 December 2022 [[link](#)]

246. Ibid.

Recommendation. Encouraging trusts to universally adopt The Professional Records Standards Body e-Discharge standard, endorsed by the Royal Colleges. The Standard enables hospitals to safely transfer standardised clinical information using headings and coded data onto GP IT systems when a patient is discharged from hospital care.²⁵⁰

Recommendation. Boost uptake and optimise use of the Discharge Medicines Service (DMS) to reduce patient safety risk at transfers of care and to reduce patient readmissions to hospital. Current uptake and use of the DMS across trusts is variable at present.

- NHSE should develop guidance which clarifies a set of objective criteria for patients eligible to use the service, with the aim of reducing local variability and to enable more effective messaging to the public (and professions). The aim should be to make this a standard part of the discharge process.
- Tackle the ‘information gap’: a significant amount of manual process is still required to use the service, and developing means to automate the service as far as possible will deliver efficiencies. Pharmacies should be able to ‘pre-register’ patients, as has been introduced in Wales.²⁵¹

Recommendation. Integrated Care Systems (ICSs) should work with the NHS Business Authority to enable greater use of joint prescribing budgets to allow hospital staff to issue prescriptions for patients at discharge and from routinely outpatient appointments. Changes to the Electronic Prescription Service should enable this. The siloed nature of prescribing budgets, limits the role that secondary care can play in issuing prescriptions, increasing workloads upon GPs.

Recommendation. Trusts should work with primary care teams to reduce the ‘information gap’, by leveraging automated processes and ensuring that staff focus on producing timely and fully informative discharge reports (within 24h). Recent research has shown that whilst most GPs are notified when patients have been seen in out-of-hours care (94%), on average, only 26% receive the information they need to continue managing care for the patient within 48 hours of discharge.²⁵²

Opportunities for Outpatients

Currently there are around 125 million outpatient appointments a year, costing the NHS £15 billion per year to deliver (Fig. 4). A significant proportion of these (about two-thirds) are for follow-up after a patient has received treatment or a diagnostic test. The system has however long been regarded as inefficient, with bodies such as The Royal College of Physicians calling for reform in recent years.²⁵³ Many follow-ups could be effectively dealt with remotely, via phone or video consultations with the patient, whilst greater use of Patient Initiated Follow-Up (PIFU) would significantly reduce the number of overall appointments, whilst empowering patients to make their own, informed choices.

Efforts to reform services are already underway, but it is evident far more needs to be done. Forty-one specialty national reports published by GIRFT by April 2022 were reviewed to identify key themes to improve quality and efficiency of outpatient services.²⁵⁴ The NHS aims meanwhile to cut the total number of appointments by 25% this year.²⁵⁵

253. ‘Outpatients: the future – adding value through sustainability’, *Royal College of Physicians*, 9 November 2018 [\[link\]](#)

254. L. Kay, P. Lanyon, A. MacGregor, ‘GIRFT programme national speciality report for rheumatology’, *Getting it right first time*, [Accessed 16/6/2023] [\[link\]](#)

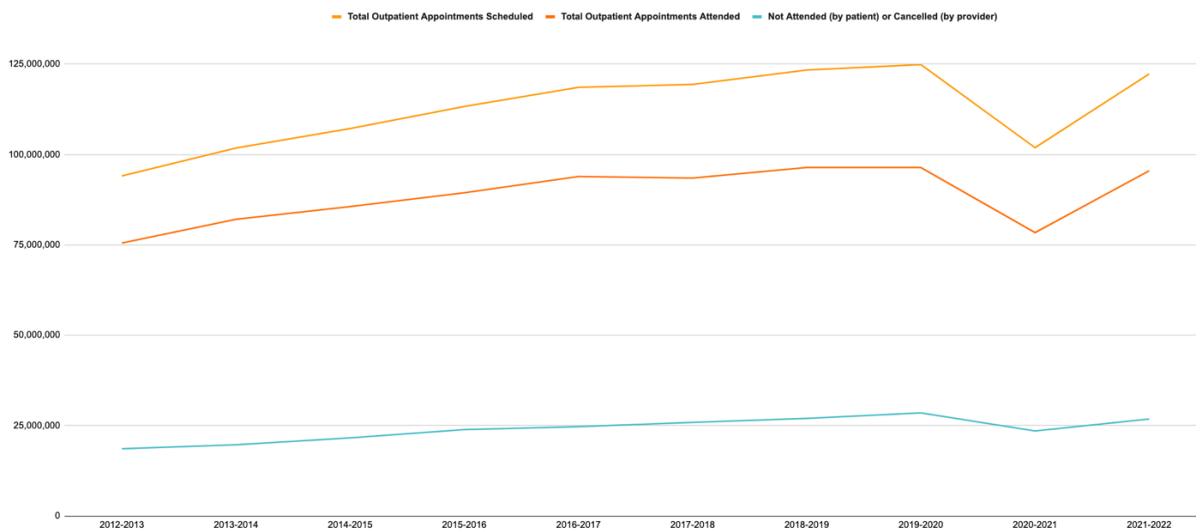
255. Reducing did not attend in outpatient care, *NHS England guidance*, 2 February 2023 [\[link\]](#)

250. N. Boddy, S. Barclay, T. Bashford and J. Clarkson, ‘How can communication to GPs at hospital discharge be improved? A systems approach’ *BJGP Open*, (March 2022) [\[link\]](#)

251. Discharge Medicines Review, *Community Pharmacy Wales*, 1 February 2022 [\[link\]](#)

252. J. Beech, C. Fraser, T. Gardiner et al., ‘Stressed and overworked: What the Commonwealth Fund’s 2022 International Health Policy Survey of Primary Care Physicians in 10 Countries means for the UK’, *The Health Foundation* (March 2023) [\[link\]](#)

Fig. 4 – Total Outpatient Appointments in England, 2012-13 to 2021-2022 (Scheduled, Attended and Cancelled)



Outpatient services have traditionally been led by specialist consultants, employed by hospitals. A need to reconfigure services based on patient need would – in the case of many conditions – lead secondary care to foster close links to primary care networks, as recommended by some GIRFT reports, including for cardiology, rheumatology, urology and endocrinology.²⁵⁶

New service delivery models which have adopted this approach are already making a substantial difference in reducing secondary care use. For instance, Modality Partnership (a GP ‘super practice’) have been working with Sandwell and West Birmingham Hospitals NHS Trust to expand outpatient provision. In their outpatient model, GPs can choose to refer a patient to community-based outpatient services across a number of specialities (determined by both primary and secondary care input). Consultants travel to the community clinic to deliver appointments, working with GPs with extended roles, nurse specialists and allied health professionals. A case study of the model, produced by NHS Providers shows that Sandwell and West Birmingham Hospitals NHS Trust had the shortest local waiting times in January 2021 across the 10 specialities in which Modality provides community outpatient services (cardiology, dermatology, ear, nose and throat, gynaecology, neurology, ophthalmology, respiratory, rheumatology, urology, orthopaedics). In a survey of almost 5,000 patients, 91% said they preferred to be seen at a community site rather than the hospital.²⁵⁷

In that model, a significant expansion in remote outpatient appointments is boosting convenience and delivering greater efficiency. The opportunities to further expand remote models of outpatient appointments are great. Take the case of dermatology and ophthalmology: annually, there are 1.1 million GP dermatology referrals and 7.8 million ophthalmology outpatient appointments in England.²⁵⁸ The recent publication of a fourteen-year review of a hospital-based a tele-dermatology service found

256. L. Kay, P. Lanyon, A. MacGregor ‘GIRFT programme national speciality report for rheumatology’, *Getting it right first time*, [Accessed 16/6/2023] [\[link\]](#)

257. Addressing the care backlog, *NHS Providers*, [Accessed 16/6/2023] [\[link\]](#)

258. M. Veremu, A. Sohail, D. McMaster, ‘Covid-19: exploring out-of-hospital solutions to increased service demand’, *Family Practice*, 27 April 2021 [\[link\]](#)

a 50% reduction in secondary care referrals, when a ‘store-and-forward’ model of service delivery was used.²⁵⁹

A second critical feature is the multi-disciplinary nature of the clinic models which were developed. Outpatient appointments often result in the devolution of care management to primary care settings, but here, general practice teams are supported by specialist teams and rapid access to expert assessment. Pharmacy will clearly have a growing role to play within outpatient services. According to a recent study, consultant pharmacists embedded in outpatient clinics have a positive effect in improving hospital adherence to NICE guidelines, in the appropriate use of biosimilars and biologics (the most cost-effective) and in reducing medication issues associated with surgery.²⁶⁰

Workforce Innovation: Creating ‘Interface Specialists’

A New Specialism, or an Evolution in Clinical Practice?

“A blended generalist and specialist workforce drawn from all sectors. Secondary care consultants – including, for example, geriatricians, respiratory consultants, paediatricians and psychiatrists – should be aligned to neighbourhood teams with commitments reflected in job plans, along with members of community and mental health teams. With teams collocated within neighbourhoods, to extend models of personalised care, embed enhanced health in care homes and develop a consistent set of diagnostic tests”

Dr Claire Fuller, ‘Next steps for integrating primary care: Fuller stocktake report’ (May 2022).²⁶¹

“It’s just completely bloody obvious that we all need to work together”

Sir Jim Mackey, CEO, Northumbria Healthcare Foundation Trust²⁶²

A central recommendation in this report is to pilot a range of ‘interface specialist’ roles across a number of ICSs in the next two years, with a view to these roles becoming a permanent feature of NHS services. The definition of an ‘interface specialist’ should be broad. Roles should be developed according to local need but also to suit the skill sets and competencies of a range of professionals including doctors, nurses and pharmacists – all of whom can bring a variety of skills to provide dedicated and ongoing management and improvement of the interface. The development of these roles should be regarded as an attempt to develop the “blended generalist and specialist workforce” which Dr Fuller outlines in her ‘stocktake’ and to ensure that roles are established with a remit to proactively assess and enhance practice at the interface.²⁶³ From a clinical perspective, the aim is to minimise delay to specialist opinion, so it can occur at the earliest possible (if not, first) contact.

The aim of these roles is to provide professionals with a remit to

259.S. Mehrtens, L. Shall, S. Halpern, ‘A 14-year review of a UK teledermatology service: experience of over 40,000 teleconsultations’, *Clinical Expert Dermatological* (Dec 2019) [\[link\]](#)

260.S. Clarke, S. Ray, ‘GIRFT programme national specialty report for cardiology’ Getting it right first time [Accessed 16/6/2023] [\[link\]](#); C. Snoswell, M. Draper, M. Barras, ‘An evaluation of pharmacist activity in hospital outpatient clinics’, *Journal of Pharmacy Practice and Research*, 20 July 2021 [\[link\]](#)

261.Next Steps for integrating primary care: Fuller Stocktake Report, *NHS England and NHS Improvement*, May 2022 [\[link\]](#), p. 34

262.‘How to fix the NHS’, *The Economist*, 25 May 2023 [\[link\]](#)

263.Next Steps for integrating primary care: Fuller Stocktake Report, *NHS England and NHS Improvement*, May 2022 [\[link\]](#), p. 34

explicitly work across providers and to consider the needs of patients straddling a range of providers – and indeed to determine the strategy required to provide improved interface working, improving the patient and practitioner experience across the board. They will likely need to be a formal (or associate) member of two different provider teams. A current hospital doctor for instance would continue as a member of their relevant hospital department, and develop community sub-specialisation so they can take on an associate position within a primary care network, and run clinics in a GP practice.²⁶⁴ Likewise, a qualified GP would remain a full member of the GP practice and develop a specialist interest such as to also become a full member of the hospital team, joining clinics and multi-disciplinary team discussions and requesting hospital-based investigations.

The creation of these roles is designed to embed a core group of clinicians whose work is located specifically at and across the interface, with a view to developing a cadre of professionals who are best-placed in the longer-term to pro-actively influence its development.

At first glance, one might assume medical specialties would benefit more than surgical specialties, but studies in orthopaedic surgery and planned elective surgical admissions show otherwise. The literature review in the previous chapter demonstrates the possibility of improvement across the entire medical spectrum. The decision to extend a particular specialty's scope into a community clinic will depend upon local circumstances.

The 'interface specialist' workforce concept proceeds on the basis that there are already many instances where healthcare professionals work across provider settings, conducting many of the features we regard as central to interface working, such as:

- **Care Coordinators** – identifying patients in need of proactive support, such as those with frailty or multiple long-term conditions.²⁶⁵
- **Clinical nurse specialists (CNS)** – who support continuity of care for people with chronic disease across both primary and secondary care;²⁶⁶ Many nurses have expanded their scope of practice beyond initial registration with the Nursing and Midwifery Council (NMC), with Advanced nursing practitioners possessing generalist skills as well as an area of special interest, and they undertake assessments and planned reviews of patients with long term conditions, e.g. diabetes.²⁶⁷ Their interventions are associated with reduced hospitalisations or readmissions and patient satisfaction.²⁶⁸
- **Optometrists** – some of whom (after gaining General Ophthalmic Services experience) take on hospital work part-time whilst retaining community employment.²⁶⁹
- **GPs (& GPs with Extended Roles)** – many GPs already work outside the GP practice setting for part or all of the working week. Some choose to work exclusively in out-of-hours services for instance.²⁷⁰ GPs with Extended Roles (GPwER) provide clinical

264.R. Robertson, L. Sonola, M. Honeyman et al., 'Specialists in out-of-hospital settings: Findings from six case studies' *The King's Fund*, (October 2014) [[link](#)]

265.Care coordination in primary care, *Birmingham City University*, (August 2021) [[link](#)]

266.K. Davis et al., 'Effectiveness of nurse-led services for people with chronic disease in achieving an outcome of continuity of care at the primary-secondary healthcare interface: A quantitative systematic review', *International Journal of Nursing Studies*, September 2021 [[link](#)]

267.GP mythbuster 66: Advanced Nurse Practitioners in primary care, *Care Quality Commission*, 23 December 2022 [[link](#)]

268.K. Davis, M. Eckert, A. Hutchinson et al., 'Effectiveness of nurse-led services for people with chronic disease in achieving an outcome of continuity of care at the primary-secondary healthcare interface: A quantitative systematic review', *International Journal of Nursing Studies*, (September 2021) [[link](#)]

269.S. Powell, 'Let's talk about hospital optometry', *Optometry Today*, 1 February 2019 [[link](#)]

270.D. Lasserson, H. Smith, S. Garland et al., 'Variation in referral rates to emergency departments and inpatient services from a GP out of hours service and the potential impact of alternative staffing models', *Emergency Medicine Journal*, September 20 2021 [[link](#)]

service provision beyond scope of current GP training (and the so-called MRCGP). The ‘Extended Role’ is typically undertaken in a setting (and on a contract) which distinguishes it from general practice.²⁷¹

The above represents a limited overview, but is important to note. ‘Interface specialist’ positions therefore represent a means of formalising cross-provider working and in creating the contractual, educational and wider professional development needs, where it may be limited at present.

One significant challenge to this approach – as articulated by Dr David Oliver in a recent piece in the *BMJ*, relates to their development amid current service pressures. As he states, consultants (for instance) “contribute substantially to acute and specialty on-call rotas, as well as hospital ward-based medicine and procedure lists that can only happen on site”. “Who would cover that work if hospital doctors were moved to community care? What would they stop doing to prioritise community roles?”²⁷² A 2017 audit found for instance, that, during peak hours, there weren’t enough consultant paediatricians to deliver hospital-based services.²⁷³ A recent analysis meanwhile of GPs working in or alongside Emergency Departments (GPED) showed that whilst the intervention extended the clinical careers of experienced GPs and supported the recruitment and retention of more recently qualified GPs, GPED also had the potential to “destabilise core general practice and increase pressure on both environments”.²⁷⁴ Moreover, with the creation of new, formal positions or a new type of role comes the prospect of extended training periods and examination requirements (both of which have additional associated costs).

There is, therefore, a need to develop these roles in such a way that those specialities or pathways which stand most to gain from greater interface support and community work are prioritised and that their development does not pose a destabilising effect to the existing clinical service.

SAS doctor numbers have grown considerably in recent years and now represent 20% of all doctors in non-training senior roles. We foresee interface specialist positions as one way of expanding opportunities and to enable the effective deployment of SAS doctor skills in the community.²⁷⁵ For pharmacists meanwhile, undertaking interface specialist responsibilities would enable – for instance – a GP pharmacist to liaise closely with a hospital across various specialties.

There will be opportunities for leadership roles at system level for this activity, tasked with the ability with colleagues to review patient pathways, and bringing clinicians together around a shared point of interaction. It is essential that individuals also bring a population health perspective to this work – akin to the role currently undertaken by public health consultants in taking a wide lens view of service provision across providers.

271. ‘General Practitioners with Extended Roles’, *Royal College of General Practitioners*, [Accessed 16/6/2023] [\[link\]](#)

272. D. Oliver, ‘Should we shift more specialist doctors’ time into community care?’, *British Medical Journal*, 15 June 2022 [\[link\]](#)

273. E. Maile, R. Singh, G. Black et al., ‘Back to the future? Lessons from the history of integrated child care services in England’, *Future Healthcare Journal*, (July 2022) [\[link\]](#)

274. H. Anderson, A. Scantlebury, H. Leggett et al., ‘Perspectives of GPs working in or alongside emergency departments in England: qualitative findings from the GPs and Emergency Departments Study’, *British Journal of General Practice*, 12 April 2022 [\[link\]](#)

275.

Some Suggested Features of an Interface Specialist: Using a Current SAS Doctor as an Example

1. Full membership of the local hospital specialty team;
2. Associate membership and staff member of a primary care network (or single large GP practice);
3. Undertakes interface specialist work on a dedicated contract through ICB;
4. Ability to provide complete 'specialist' opinion in primary care/community settings;
5. Able to book patients into hospital clinics & book hospital diagnostic tests;
6. Opportunities for informal learning from primary & secondary care teams
7. Participant in hospital multidisciplinary meetings to discuss community cases;
8. Input on optimising referrals;
9. Input on optimising discharges;
10. Proactive identification of initiatives to support improved 'interface working'
11. Provides strategic perspective on development and evaluation of services in through the interface;
12. Key liaison figure for GP team for joint research activities with local trust
13. Opportunity to undertake dedicated GP training to widen generalist skills or to become qualified GP (if desired)

In the first instance, we envisage that new 'interface specialists' would retain an employment contract with a 'primary provider', i.e., a hospital trust in the case of an SAS doctor, and that dedicated 'interface specialist' work (where they operate beyond that provider) is reimbursed by a dedicated scheme, managed at system level. Most positions would most likely therefore be dual-contracted. Some providers may be able to provide a single, unified contract of employment however. Beyond a clinical evaluation of the impact of 'interface specialists', review of these roles should also consider the optimal approaches to simplify their contacting and reimbursement.

Recommendations. Interface medicine should be developed as a distinct sub-speciality. 'Interface specialist' positions should be developed across the medical workforce for doctors, nurses, or allied health professionals – for those currently in training or practicing *and* in anticipation of a new generation of medical professionals. To enable this:

- **DHSC should work with Health Education England (HEE), GMC and Royal Colleges to enable the medical workforce to more easily work across provider settings.** The aim should be to enable hospital specialists (across all relevant professions) to be able to routinely practice 'in the community' with community sub-specialisation encouraged across a wider range of specialties.
- **Consultants should be enabled to contribute to interface medicine through the creation of dedicated job plans** which locate a greater proportion of their work 'in the community' or across providers.
- **Royal Colleges should set up a joint working group/cluster to encourage adoption of increased 'interface' working as a sub-speciality.** This should include the development of courses and qualifications to support training. Community and specifically interface sub-specialisation should be encouraged across all relevant fields.

Recommendation. The Government should introduce amendments to the Medical Act 1983 to enable the General Medical Council (GMC) to recognise GPs as specialists in their own right. Currently there are two separate GMC registers for general practitioners and consultants.²⁷⁶ The British Medical Association, Royal College of General Practitioners and GMC have all expressed support for a merger of medical registers into a single advanced medical register. DHSC could announce this intention as part of its response to the 2021 consultation, *Regulating Healthcare Professionals*.²⁷⁷

Recommendation. SAS doctors should be enabled to practice in primary care settings. The new 'interface specialist' roles we envisage seek to make effective use of the specialist skills SAS doctors have developed. In some cases doctors may wish to undertake formal GP training – this should be encouraged. Specific pathways for SAS doctors to work towards becoming interface specialists should also be developed which focus upon measures to deploy their existing expert skills across primary settings. This approach should be piloted by NHSE and – if applicable – adaptations to Performers' List regulations should be introduced to enable it.

Recommendation. NHSE's forthcoming National Community Nursing Plan should identify opportunities for community nursing to play a leadership role in the development of novel interface working and in establishing clinics.

Recommendation. The present wide variation in the understanding and use of the term Advanced Clinical Practice in job specifications – particularly in nursing – should be reconciled. The Government should work with key stakeholders, including the Nursing & Midwifery Council to develop a standard competency framework for advanced or specialist nursing.

276. 'Specialist status for GPs delayed as legislative timetable slips', *GP Online*, 22 April 2022 [\[link\]](#)

277. Regulating healthcare professionals, protecting the public, *Department of Health and Social Care*, 24 March 2021 [\[link\]](#)

How Would ‘Interface Specialists’ Work in Practice? Case Study in Cardiology

In primary care, there are a wide range of NICE guidelines for cardiology, covering palpitation, heart failure, chest pain, syncope, atrial fibrillation, heart murmurs and hypertension. Across these seven guidelines there are forty-three different triggers for emergency referral, sixteen ‘must do’ actions including investigations or treatments at various points across the disease types and sixteen points of routine referral based on almost a hundred points of history, physical signs, test and combinations thereof. GPs have plenty of guidance, but also a heavy burden of knowledge across many medical fields.

Hospital cardiologists have expertise in general cardiology and often a sub-specialty expertise, e.g., coronary artery catheterisation, rhythm disorders or atypical chest pain. Yet the sub-specialty area of community cardiology is rarely one of these sub-specialties. Enabling cardiologists to provide greater ‘specialist input’ in primary care could enable improved service development and enhance the team’s understanding of local epidemiology and the links between lifestyle issues and disease. Possibilities will exist beyond the optimisation of A&G, to include other forms of input, such as co-consultation in general practice.

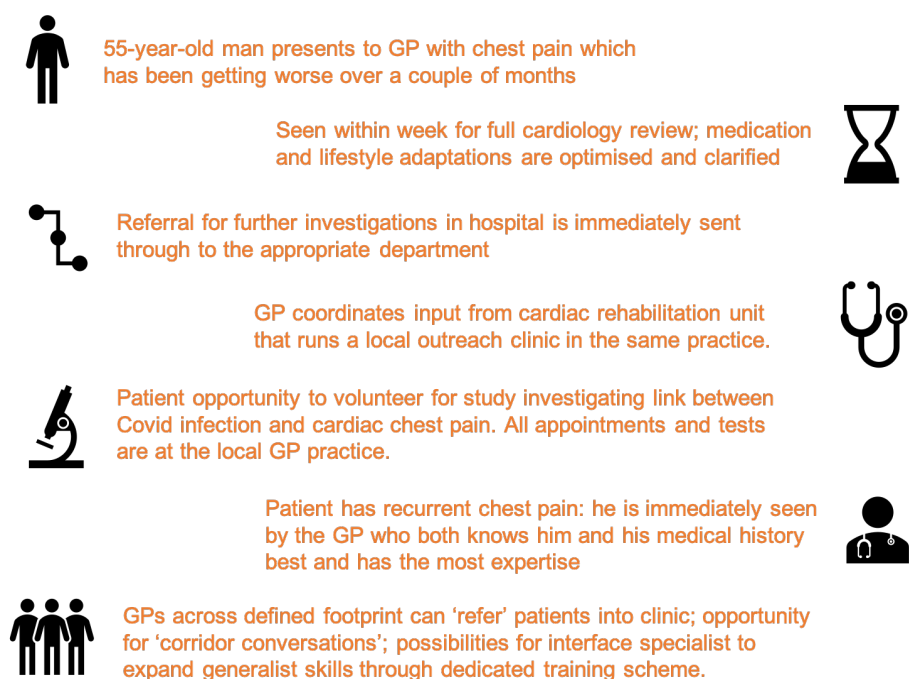
For the cardiologist, greater exposure to undifferentiated case-loads and the acquisition of a deeper understanding of local patterns of disease and their causes (environmental and genetic) would be advantageous in expanding the development of the local cardiology service. The specialist in primary care can bring well-honed, experience-based, clinical skills to bear on a broader base of relevant patients.

An ‘interface specialist’ would engage in education and practice/community initiatives (guideline updates, screening, lifestyle change, etc) and would feed into commissioning decisions concerning facilities, such as for diagnostics that could be developed in a community setting, rather than those only available in hospital. Diagnostics could include echocardiography, exercise testing and 24-hour recording of blood pressure or heart rhythm.

Box 7 – The Case of Cardiology

- An interface working group examines data across the entire ICS footprint: specialty waiting lists point to cardiology as being particularly and consistently problematic.
- Data from a hospital cardiology out-patient audit demonstrates that many patients who could be effectively managed in the community are instead being referred.
- A&E visits for acute cardiology problems are consistently high and are unusually weighted to conditions avoidable with better cardiology access in the community.
- Patient groups confirm anxiety about cardiology management in the area.
- Within the ICS footprint there are two large GP practices.
- It is agreed that the ICB will fund an interface cardiologist to work between these practices and the hospital.
- Discussions focus on whether supporting services could be introduced simultaneously, e.g., echocardiography, clinical trials outreach etc.
- Within hospital, the role includes attendance at general MDT meetings, general medical review of in-patients and discharge planning.
- Key goals for the service are identified in advance of the programme, e.g., reduced waiting times for cardiology outpatient clinics, A&E cardiology attendances and patient satisfaction.
- The patient group to be seen by the new doctor are agreed in outline, general cardiology.
- The interface specialist post is advertised as being suitable for:
 - an existing GP in either practice looking to expand specialist interest in cardiology (perhaps an existing GpWER); cardiology training to take place at local hospital according to RCP guidance; OR
 - an existing cardiologist (including Specialty and Associate Specialists) withing the hospital team willing to sub-specialise in interface medicine.
- In each large GP practice a weekly cardiology clinic is established:
 - patients seen within a week for full cardiology review
 - Medication and lifestyle adaptations are optimised and clarified
 - Referral for further investigations in hospital is immediately sent through to the appropriate department
- A prospective audit will take place to assess the originally defined goals.
 - If it is found that general cardiology waiting times are improved, then appropriate adaptations can be made to take advantage.
 - If a particular supporting service is found to be rate limiting, consideration can be given to introduce the service into one or both of the GP practices.

Fig. 5 – The User Journey



The Evolution of Interface Medicine

Crucially, any service adaption should be rigorously evaluated – the introduction of interface specialists is no different. Whilst it is the case that a recent review finds a scarcity of “standardized, validated tools” used to evaluate outcomes of healthcare integration, we would encourage the development of a pilot study over the next twenty-four months, with the intention to kick-start longitudinal analysis of their impact.²⁷⁸ Below is a table which sets out how the activity and scope of interface specialist roles might develop over the coming years.

278.A. O'Farrell et al., 'Measuring integrated care at the interface between primary care and secondary care: a scoping review', *Journal of Integrated Care*, 19 February 2021 [[link](#)]

During a Pilot	In A Decade
Draw upon and encourage existing specialists to be deployed across primary and community to enhance 'specialist input'.	Mix of GPs with a specialist interest and hospital consultants working in community
Roles can be undertaken with existing qualifications	Medical school and junior doctor training will create greater opportunities for rotations across providers and training to specialise in interface medicine.
Retained on existing employment contract, i.e., consultant contract for period of the pilot	Employed on a bespoke interface specialist contract through ICB
ICBs to identify key outcomes according to local needs for each role.	Interface sub-specialisation to be a routine part of all specialist teams.
No academic role required.	Interface specialists to lead academic drive in their areas. Academic specialists to be part of interface-specialist group.
Close monitoring of each clinician's impact.	Interface clinicians leading service development discussion.

Teaching and Education

In pursuit of creating the right 'blend' between generalism and specialisation, there are significant opportunities to adapt current approaches to medical, nursing and pharmacy education to enable greater exposure to a variety of clinical settings and to boost multi-disciplinary team working. Advancing work at the interface should be regarded as key to achieving this aim. As one recent review puts it, teaching and learning across the primary-secondary care interface is currently "more often described than carried out". As such, "it could be said to mirror patient care across the...interface".²⁷⁹ It remains the case, therefore, that whilst a range of initiatives have been developed (a number of which are detailed shortly), medical staff are still "predominantly trained in isolation" and may therefore struggle to develop important informal professional relationships.²⁸⁰

There are many factors which influence the career choices of medical students and junior doctors, including the opinion of family and friends, media, salary and prospects of a good work-life balance. It has been recognised for some time, that the 'denigration' of general practice remains an ongoing problem within the medical profession, impacting throughput to specialty training – an issue not just in the UK, but across advanced healthcare systems.²⁸¹

279.J. Spicer, R. Roberts, 'Teaching and learning at the primary – secondary care interface: work in progress?', *Education for Primary Care*, 14 April 2020 [\[link\]](#)

280.L. Meijer et al., 'Intra-professional collaboration and learning between specialists and general practitioners during postgraduate training: a qualitative study', *BMC Health Services Research*, 11 August 2016 [\[link\]](#)

281.E. Carlin, H. Alberti, K. Davies, "Denigration of general practice as a career choice: The students' perspective. A qualitative study" *BJP Open*, January 2021 [\[link\]](#). See also: C. Chan et al., "Tension in the primary-secondary care interface: changing medical students' views on general practice", *ASME Medical Education*, 27 March 2019 [\[link\]](#); J. Barber, S. Park, K. Jensen, et al., 'Facilitators and barriers to teaching undergraduate medical students in general practice', *Association for the study of Medical Education*, 23 April 2019 [\[link\]](#). On international perspective, see: 'Strengthening primary care in Europe: How to increase the attractiveness of primary care for medical students and primary care physicians?', *European Observatory on Health Systems and Policies*, 2 March 2023 [\[link\]](#)

Box 5 – Understanding the Views of Medical Students & Their Career Choices

The 2016 Wass Report, co-sponsored by Health Education England (HEE) and the Medical Schools Council (MSC) reports on the cultural factors which may lead students to perceive specialising in general practice to be of lower status compared to hospital medicine, concluding that a perception of limited opportunities in academic medicine (compared to secondary and tertiary care) and busy workplaces (not conducive to be effective for teaching and professional development) as leading reasons.²⁸² In 2017, the Royal College of General Practitioners (RCGP) published *Destination GP* which pointed to denigration and factionalism within medical school teaching which was entrenching this view.²⁸³ The two strongest reported factors driving students away from GP practice were the attitudes towards general practice of both peers and of non-GP specialty tutors.²⁸⁴

A 2018 study of Oxford University medical school student opinion on future specialisation cited the value of community-based working; the importance of reasonable working hours; the influence of current pressures in general practice and student' experience in the fifth year GP attachments as key to determining progress to Foundation Programmes and speciality training.²⁸⁵ Exposure can also be a key determinant. A recent quantitative study of teaching at twenty-nine medical schools found an association between the quantity of clinical GP teaching at medical school and entry to general practice training.²⁸⁶ Another study in *BMJ Open*, exploring curriculum adjustments, finds that focusing solely on length of time spent in a specialty in medical school would be unlikely to solve recruitment gaps in individual specialties.²⁸⁷ Moreover, undergraduate curricula infrequently note the possibility for GPs to undertake Extended Roles (GPwER).²⁸⁸

GPs have to keep up with medical advances across almost all areas. One leading GP educational update service has 900 online articles, with very little overlap, distilling guidelines and current evidence. Around a third are updated annually. Several hundred refer to NICE guidelines which, as originally published, can sometimes run to several hundred pages. This contrasts with hospital-based medicine where guidelines are very few within each field. The technicality that GPs are not, for example, trained as cardiologists does not mean that their treatment of patients suffering from hypertension or angina is not cardiology: it certainly is. Paradoxically, GPs have far less time per consultation than hospital specialists in which to exercise their clinical judgement. Rather, the application of guidelines is gold standard practice. Despite the myriad of presenting medical variations, the most common causes of complexity in practice are often due to social and/or mental health issues. This adds yet another required layer of expertise and knowledge in GP practice.

In an editorial piece in the *British Medical Journal* in 2020, Kamran Abbasi reflected that the “reform of medicine is urgent and necessary. Increasingly, patients have two or more conditions at the same time, but clinicians are devoted to one disease, body part, or organ. Training, clinical teams, guidelines, and research are focused on an isolated component. An intellectual shift is required to think of multimorbidity as predictable clusters instead of a random assortment of individual parts. And that sea change is the revival of generalism, even for specialists.”²⁸⁹ As the Academy of Medical Royal Colleges have recently identified, developing generalist

289. K. Abbasi, 'Generalism for specialists: A medical reformation', *The British Medical Journal*, 16 January 2020 [[link](#)]

282. 'By choice – not by chance: supporting medical students towards future GP careers', *Health Education England*, November 2016 [[link](#)]

283. 'Destination GP: Medical students' experiences and perceptions of general practice', *Royal College of Practitioners*, [Accessed 28/03/2023] [[link](#)]

284. 'Destination GP: Medical students' experiences and perceptions of general practice', *Royal College of Practitioners*, [Accessed 28/03/2023] [[link](#)]

285. S. Barber et al., 'UK medical students' attitudes towards their future careers and general practice: a cross-sectional survey and qualitative analysis of an Oxford cohort', *BMC Med Educ*, July 4 2018 [[link](#)]

286. H. Alberti et al., 'Exposure of undergraduates to authentic GP teaching and subsequent entry to GP training: a quantitative study of UK medical schools', *British Journal of General Practice*, 2017 [[link](#)]

287. H. Vaidya, A. Emery, E. Alexander et al., 'Clinical specialty training in UK undergraduate medical schools: a retrospective observational study', *BMJ Open*, Jul 17 2019, [[link](#)]

288. E. Appadurai 'Undergraduate exposure to GPs with Extended Roles', *British Journal of General Practice*, (November 2019) [[link](#)]

medical skill sets will be “crucial for potential future acute surges in healthcare demand and to meet changing patient needs.”²⁹⁰

In July 2020, HEE published its ‘Future Doctor’ report, which identifies reforms required in education and training the service for the future.²⁹¹ “Future Doctors”, the report suggests, “must have a strong bedrock of generalist skills, which can be transferred and extended over the course of a career. Access to generalists in primary and secondary care will prevent patients from seeing multiple specialists, which costs patient time and risks fragmented care, duplication and waste”.²⁹² Some of the work to enable this is already underway, with HEE launching a ‘Generalism Trailblazer’ with rotations for Foundation Year 1 (F1) doctors starting in August 2022. Participants will be undertaking two six-month secondary care specialties in F2 year, 60% of the time. Approximately 40% of training time will be undertaking a ‘Generalism longitudinal integrated clerkship’ (GLIC) based in a community or primary care setting. The aim is to ensure participants receive “a real feel for multimorbidity across the primary-secondary care interface during that year”.²⁹³

Other examples of initiatives looking to provide experiences across provider boundaries include the CaRER programme (Community and Rural Education Route) run in partnership between Aberystwyth and Bangor Universities which gives third year medical students at Cardiff the opportunity to have a year of their education delivered in GP practices and hospitals in North and Mid Wales.²⁹⁴ Opportunities to establish attachments for junior doctors to complete rotations or to build experience working across primary and community settings throughout the course of their professional development, up to completion of the Certificate of Completion of Training (CCT) should be explored.

The redesign of curricula should enable emerging models of care.²⁹⁵ A recent report from Policy Exchange called for future medical school expansion to be partly predicated upon institutions that are able to train doctors in a multi-disciplinary environment and to provide clinical placements across a wide range of providers (particularly across general practice and community services).²⁹⁶ There is a case for key stakeholders to explore the potential for interface management to become a key feature of the Foundation Programme. A focus on an effective interface— one recent article in the *British Journal of General Practice* contends – could have significant benefits for future models of ambulatory care.²⁹⁷

In the longer-term, standard medical school and specialist training should include GP practice-based work. In addition to general GP clinics, medical students should be assigned to observe specialist clinics in GP practices during their clinical firms in each specialty. Trainee GPs should be able to combine interface-specialist training into their core GP training. This should include options for academic training in either (or both of) primary and specialist medicine. In this way, on completion of their training, these doctors would immediately function at the appropriate level both clinically and financially.

The development of community sub-specialisation in each specialist

290. Principles for improving multi-professional team-working in light of the experiences of COVID-19, *Academy of Medical Royal Colleges*, 19 October 2021 [[link](#)]

291. Enhancing Generalist Skills, *NHS Health Education England*, [Accessed 28/03/2023] [[link](#)]

292. Ibid.

293. see Enhance EOE, *NHS East of England*, [Accessed 28/3/2023] [[link](#)]

294. Community and Rural Education Route Programme, *Aberystwyth University*, [Accessed 28/3/2023] [[link](#)]

295. L. Pope ‘Delivering medical education for future healthcare needs: a community-focused challenge’, 26 July 2020, *Education for Primary Care* [[link](#)]

296. S. Phillips, I. Mansfield, ‘Double Vision: A roadmap to double medical school places’, *Policy Exchange*, 16 December 2022 [[link](#)]

297. D. Lasserson, ‘Interface medicine: a new generalism for the NHS’, *British Journal of General Practice*, November 2017 [[link](#)]

area and the development of associated academic posts and support, should be actively encouraged. Medical students and junior doctors will then be routinely exposed to community-based medicine as a part of each hospital specialist firm and have far more interaction with GPs and their clinics before choosing their career paths. This will reset the parity between GPs and hospital doctors. The comprehensive and far-reaching recommendations for change in medical schools, set out in the Wass Report, would be facilitated. The interface specialist model is additionally an opportunity for the Government to invest simultaneously in primary and secondary care in a manner that recognises them as being of equal status.

Recommendation. Medical students and junior doctors should be enabled to train across a variety of provider settings.

- Working across a range of providers should become a key feature of the Foundation Programme. Health Education England's 'Generalism Trailblazer' represents a blueprint for how this may be achieved moving forward.
- Deaneries should consider measures to enable a greater volume of rotations in general practice and community care for junior doctors right up to Certification of Completion of Training (further developing flexibility in training pathways via the Accreditation of Transferable Capabilities (ATC) and 'Combined Programme').²⁹⁸
- There will be an opportunity to learn from insights deriving from current HEE General Internal Medicine specialty pilots.²⁹⁹
- As GP practice-based specialist clinics develop they should form a core part of medical school and junior doctors' specialty training, for GPs and for hospital specialists.

298. 'Combined training', Royal College of General Practitioners [\[link\]](#)

299. 'General Internal Medicine specialty pilots launched by Health Education England', Health Education England,

26 July 2022 [\[link\]](#)

Expanding Research Activity Across Primary Care

“With Primary Care Research we are faced with the Law of Inverse Opportunity in that the largest part of the medical profession has the least research opportunities.”

Denis Pereira Gray, ‘Research in general practice: law of inverse opportunity’, *BMJ Clinical Research*, Vol. 302, No. 6789 (July 1991), 1380-2³⁰⁰

The ‘research effect’ upon medical practice is well known: improved job satisfaction as well as increased investment. But more fundamentally, clinical research is the most important route to improving healthcare delivery – by identifying the best way of preventing, diagnosing, and treating conditions.³⁰¹

One of the great paradoxes in our approach to clinical research at present remains that the bulk of patients presentations occur in primary care, yet the resources deployed to conduct research remain predominantly in secondary care.³⁰² This has long been understood. In 1986, the Mackenzie Report described a juxtaposition between medical school activity and the business of general practice: “universities are hierarchical organisations whereas general practice is strongly egalitarian; universities emphasise research and theory, whereas general practice has evolved from experience and instinct ...”³⁰³ This is a sweeping generalisation, but does characterise a cultural divide that persists.

The recently-published O’Shaughnessy Review argues that “primary care is a negligible provider of clinical trials activity” and that doctors lack the sufficient incentives to take part in commercially-funded research, and therefore urges the development of primary care research networks, and for GPs to apply for Clinical Impact Awards.³⁰⁴ The status quo is therefore not only limiting the introduction of the latest treatments and approaches to the greatest number of patients, but is also limiting opportunities for primary care staff to work at the cutting-edge of medicine, impacting the career choices of academic trainees (and indeed the GP profession at large).

The proportion of clinical academic GPs in England has remained stubbornly low: between 0.6% and 0.7% of total numbers of GPs (from 2011-2020).³⁰⁵ The Wass Review, *By Choice Not Chance*, which was published in 2016, showed that only 6% of medical school clinical academics specialised in general practice, despite GPs forming roughly half the total medical workforce. That report also revealed a large portion of general practice research was conducted within the nine schools in the National School for Primary Care Research, diluting students’ access to primary care research across the remaining thirty plus medical schools.³⁰⁶ As Professor John Howie puts it, “impact on the culture of medical schools has been visibly successful; its impact on the culture of service general practice has been harder to judge. In both spheres progress has been complicated (often unnecessarily) by issues of clinical and academic

300.D. Pereira Gray, ‘Research in general practice: law of inverse opportunity’, *British Medical Journal*, 8 June 1991 [[link](#)]

301.R. Ede & S. Phillips, ‘How can clinical research remain a central mission for the NHS as we emerge from the pandemic?’, *Policy Exchange*, 2022 [[link](#)]

302.A useful history of the development of academic general practice is: J. Howie, ‘Academic general practice: reflections on a 60-year journey’, *British Journal of General Practice*, 1 August 2010 [[link](#)]

303.Cited here: J. Howie, ‘Academic general practice: reflections on a 60-year journey’, *British Journal of General Practice*, 1 August 2010 [[link](#)]

304.The Lord O’Shaughnessy Review, *Department for Science, Innovation and Technology and the Department of Health & Social Care*, 26 May 2023 [[link](#)]

305.Future-proofing UK Health Research: a people-centred, coordinated approach, *The Academy of Medical Sciences* [Accessed 16/6/2023] [[link](#)]

306.V. Wass, ‘By choice – not by chance: supporting medical students towards future GP careers’, *NHS Health education England*, November 2016 [[link](#)]

credibility, ownership of professional territory, and disciplinary identity. Many groups with differing agendas have been and still are competing for influence.”³⁰⁷ This is not easy to fix, for “career pathways remain unclear, clinical credibility is questioned, and recruitment is challenging”.³⁰⁸

The most recent NIHR Clinical Research Network Primary Care Strategy document meanwhile notes a reduction in patient recruitment numbers in studies managed by Primary Care. The most recent review showed that 36% of all GP practices are presently research active (2019/20), below a clinical research network target of 45%.³⁰⁹ There has also been a significant drop in the number of participating practices in recent years. Key reasons cited for this include a lack of academic opportunities for GPs and other healthcare professionals; changing models of primary care provision; increased workloads; transfer of work from secondary care; and inadequate funding.³¹⁰

It need not be this way however. In one recent study examining opportunities to expand research activity in primary care, it has been deemed the “sleeping giant of research delivery”.³¹¹ Direct access to the broader patient population may increase the possibilities to conduct large-scale, epidemiological, behavioural and therapeutic studies, and the study of rarer diseases is vastly enhanced by the availability of a larger patient population.³¹² Great new opportunities are emerging as our overall approach to clinical trials changes. More GPs are taking on principal investigator roles in hospital-based trials; efforts to widen participation are taking testing sites to car parks, whilst some pioneering trials – such as the PANORAMIC study from the University of Oxford enable participation from home.³¹³ During COVID-19, the successful PRINCIPLE study also indicates what may be possible.³¹⁴

A recent NIHR review identifies some of the current stumbling blocks to boosting activity in general practice: some GPs have reflected frustrations at the approach taken by the Patient Identification Centre (PIC), whilst there may be opportunities to develop generic research codes (which could be made specific to an individual study by using a study ID as the code value) for recording research activities in primary care.³¹⁵

It is of utmost importance that links between NIHR Clinical Research Networks (CRNs), specialist centres and individual general practices or PCNs/federations/collaboratives are enhanced.³¹⁶ A case study below (Box 7) which profiles the Primary Care Research Collaborative Sheffield which shows how a ‘cluster’ of practices can more effectively align to the relevant local CRN and can actively and effectively contribute to portfolio studies.

307. J. Howie, ‘Academic general practice: reflections on a 60-year journey’, *British Journal of General Practice*, 1 August 2010, [\[link\]](#)

308. M. Wanat, P. Redmond, T. Barry et al., ‘Ten things I wish I had known about academic primary care’, *British Journal of General Practice*, 30 March 2023 [\[link\]](#)

309. Clinical Research Network Primary Care Strategy, NIHR, 24 February 2022 [\[link\]](#)

310. Ibid.

311. J. Dickson, A. Hilton, C. Kelsall & L. Cormack ‘Primary care: the sleeping giant of research delivery’, *British Journal of General Practice*, 27 April 2023 [\[link\]](#)

312. England Rare Diseases Action Plan 2023, *The Department of Health and Social Care*, 28 February 2023 [\[link\]](#)

313. PANORAMIC Trial [\[link\]](#)

314. ‘The PRINCIPLE Trial’, *Nuffield Department of Primary Care Health Sciences*, [Accessed 28/3/2023] [\[link\]](#)

315. Research Codes for Primary Care, NIHR, 31 May 2019 [\[link\]](#)

316. Clinical Research Network in England, *National Institute for Health Research*, [Accessed 16/6/2023] [\[link\]](#); D. Mummery, ‘How to become a research practice’, *Pulse Today*, 16 March 2023, pp. 36-7 [\[link\]](#)

Box 7 - Primary Care Research



Collaborative Sheffield

The University of Sheffield Academic Unit of Primary Medical Care (AUPMC), the NIHR Clinical Research Network Yorkshire & Humber, and Primary Care Sheffield have worked collaboratively to develop research networks and infrastructure across the city.

The collaborative is based on a ‘cluster’ of ten practices with a combined population of approximately 100,000 patients who collaborate in recruiting to NIHR portfolio studies. Patient Identification Centre (PIC) work, academic and commercial work is undertaken. Each member practice has a lead GP and a Clinical Trials Research Administrator (CTRA).³¹⁷ Their work has included outreach to community associations to boost participation amongst under-represented groups, targeted by geospatial mapping software tools.³¹⁸

Recommendation. Links between the National Institute for Health and Care Research (NIHR) Clinical Research Networks (CRNs), specialist centres and general practice should be enhanced as a priority.³¹⁹

- The Government should incentivise NIHR CRNs (via ‘High Level Objective’ funding allocation increases) to proactively work with GP practices keen to develop their research activities.³²⁰ GP practices should be able to benefit from this funding uplift which could (partially) be drawn from any unused investment currently earmarked for the Additional Roles Reimbursement Scheme.³²¹
- The NIHR should consider supporting Academic Clinical Fellowships which have a specific focus upon advancing interface medicine.³²²
- There should also be a focus on encouraging GPs to complete the NIHR-Academy of Medical Royal Colleges Clinician Researcher Credentials Framework to enable an expansion of Collaborator, Co-Investigator or Principal Investigator (PI) roles to boost clinical research.³²³

Another major advantage to increasing academic opportunities in primary care is the attraction into GP practice of junior doctors with academic ambition. This cohort are eventually the greatest drivers of scientific advancement in their areas. GP practice is an inherently attractive clinical area in which to work, but for a junior doctor with an interest in laboratory or other basic science a choice must almost always be made between GP practice and research. An interface specialist can combine a full scientific academic career with community medicine. This works to attract a fresh cohort of highly able junior doctors into GP medicine and simultaneously against GP medicine being looked down upon as described earlier.

Beyond enhancing relationships between GPs and CRNs, there are a number of longer-term initiatives which ought to be considered to enable general practice to more routinely participate in and lead clinical research activity. In 2009, the NIHR accredited the first five Academic Health Science Centres (AHSCs). These are partnerships between top universities

317. ‘Ongoing studies in Sheffield’, *Primary Care Sheffield*, [Accessed 28/3/2023] [[link](#)]

318. A new tool for inclusive participation in primary care research, *University of Sheffield*, [Accessed 16/6/2023] [[link](#)]

319. Clinical Research Network in England, UK *Clinical Research Collaboration* [[link](#)]

320. NIHR Local Clinical Research Network Funding Allocations 2020/21, *National Institute for Health and Care Research* 11 August 2020 [[link](#)]

321. J. Hacker, ‘Revealed: Tens of millions of unspent ARRS funding to be lost to general practice’, *Pulse Today*, 2 February 2023, [[link](#)]

322. Integrated Academic Training, *National Institute for Health and Care Research* [Accessed 28/3/2023] [[link](#)]

323. ‘Become a Research Delivery Leader: the NIHR-AoMRC Clinician Researcher Credentials Framework’, *National Institute for Health and Care Research*, [Accessed 16/6/2023] [[link](#)]

and NHS organisations that combine excellence in research, health education and patient care.³²⁴ The first three launched were in London, Cambridge and Manchester. Eight partnerships were accredited for five years in 2019.³²⁵ The purpose of these organisations is to overcome two translational gaps: one between discovery and establishing a therapy; and one between discovery and ensuring more broadly use across a relevant population.³²⁶ General practice – whilst represented – remains limited in its representation and focus. With a growth in medical schools in recent years (and envisaged in the years to come), combined with a need to expand clinical placements and focus to primary and community care to develop expert generalist skills, there will be opportunities to accredit to AHSCs which have more of the dedicated and bespoke approach to engaging with general practice.

Recommendation. The Government should work with the NIHR to enable Academic Health Science Centres (AHSCs) to focus on enhancing clinical research activity across primary care and community settings.

Beyond developing the existing network of organisations which further clinical research and partnerships between industry, academia and the NHS, such as the size of the opportunity, but also the need to develop bespoke approaches to enabling general practice to engage more thoroughly in research activity, that new initiatives will also be required. We recommend the development of a dedicated Academic Primary Care Accelerator Scheme to achieve this.

324. 'Eight new Academic Health Science Centres launched to support the translation of scientific advances into treatments for patients', *National Institute for Health and Care Research*, 6 April 2020 [[link](#)]

325. These were: Bristol Health Partners; Cambridge University Health Partners; Imperial College Academic Health Science Centre; King's Health Partners; Manchester Academic Health Science Centre; Newcastle Health Innovation Partners; Oxford Academic Health Partners and UCL Partners, see: 'Eight new Academic Health Science Centres launched to support the translation of scientific advances into treatments for patients', *National Institute for Health and Care Research*, 6 April 2020 [[link](#)]

326. B. Delaney, J. Moxham & R. Lechler, 'Academic Health Sciences Centres: an opportunity to improve services, teaching, and research', *British Journal of General Practice*, 1 October 2010 [[link](#)]

Establishing an Academic Primary Care Accelerator Scheme

Building on the Academy of Medical Sciences recent report, *Future-Proofing Research* which calls for a “collective responsibility” to “maximise the strength of the UK’s varied, vibrant and collaborative health research funding system, funders across public, charitable and private settings...to sustainably fund health research”.³²⁷ We foresee significant advantages to the development of a dedicated scheme to boost clinical research activity in primary care.

- **An Accelerator Scheme should be developed by DHSC, NHS England and other key stakeholders**, including the Society for Academic Primary Care and NIHR School for Primary Care Research
- **Under the scheme, GP practices, either individually or as a ‘cluster’ (which could be a GP Federation or Primary Care Collaborative for instance) or include local community pharmacy, would apply for dedicated financial and logistical support to develop research activity.**
- **Applications for funding and support should be scrutinised by a national ‘steering group’** made up of key participating organisations, including NHS England, the NIHR, medical schools and voluntary sector and life sciences industry partners who have chosen to invest in the scheme.
- **‘Placement’ of support should be linked to wider priorities, such as seeking to address GP disparities across a particular ICS footprint, or in seeking to boost research activity for a particular medical condition.**
- **Formal affiliation should be established with a medical school and (if possible) to an Academic Health Science Centre.** In doing so, access to lab-based support, epidemiology, statistics and a trials unit would be enabled and this should be part of the grant application. Participating practices should seek to support a greater number of clinical placements for medical school students as part of the arrangement. A wider aim of the scheme is to provide a greater number of medical school students to exposure across primary care settings and to demonstrate that this part of the healthcare system increasingly engages in science and academic medicine, which would be attractive to those seeking a career in academia/clinical research.
- **Provision should be made to resource GPs and other practice staff (where relevant) to undertake the NIHR-AoMRC Clinician Researcher Credentials Framework.**
- Clinical and ‘back office’ support should be provided to assist in the recruitment of participants to studies and to provide additional capacity for practices who will necessarily be balancing a desire to boost research activity and to meet significant clinical service demands.
- We foresee advantages for participating practices to pioneer novel strategies of interface integration utilising interface specialists working in their practices and to evaluate these initiatives in practice.

327.Future-proofing UK Health Research: a people-centred, coordinated approach, *The Academy of Medical Sciences*, [Accessed 16/6/2023] [[link](#)]

Conclusion

As it stands today, the interface between primary and secondary care remains too often *reactively* managed. Systems for effective communication between clinicians and with their patients is too often sub-optimal, whilst the use of initiatives, such as the Discharge Medicines Service is too variable and inconsistent. Too many patients end up feeling ‘bounced around’ the system, causing real frustration and uncertainty as to who is responsible for their care. The status quo is equally frustrating for staff. At worst however, these disconnections represent a significant patient safety risk, made all the more significant at a time of long waits and considerable clinical service pressure.

This report has made the case that a dedicated approach to the interface and its *active management* is now required. This is of particular importance because of the growing volume and complexity of work taking place between and across interface, and because of a broader imperative to develop greater capacity in primary and community settings, and to more efficiently perform a greater range of diagnostic tests and interventions in a patient-convenient manner.

Across the twenty recommendations this report makes, the majority cluster around three broad themes – culture, communication and clinical process – which the Academy of Medical Royal Colleges has identified as key pillars of improved interface working.³²⁸ These drivers – as demonstrated in Chapter 1 – have been long understood; affecting change meanwhile and improving pathways has proven more challenging. Moreover, these principles are applicable across all health and care system ‘interfaces’, not just the ‘internal’ interface between primary and secondary care that we have examined.

We are of the view that whilst relationships across providers will be critical in driving change, the development of a dedicated national initiative – drawing on officials from DHSC and NHSE alongside clinical expertise and user perspectives – should be established. After all, improving the interface will have advantages to the NHS at large, and will help to deliver upon the core priorities that matter most to service users: improving access to primary care and bringing down waiting times.³²⁹

Fundamentally, reform must begin from the premise that the patient is central and constant in all clinical pathways and that their management is a shared responsibility. The disciplinary division between primary and secondary care is of no relevance to the patient and their care journey.³³⁰ A commitment to ‘shared referral pathways’, and greater transparency for

328. General practice and secondary care: Working better together, *Academy of Medical Royal Colleges*, March 2023 [[link](#)]; Better integration between primary and secondary care: Examples of good practice, *NHS England – Right Care*, June 2017 [[link](#)]

329. 2023/24 priorities and operational planning guidance, *NHS England*, 23 December 2022 [[link](#)]

330. R. Sampson, ‘Patients’ perspectives of the medical primary-secondary care interface: systematic review and synthesis of qualitative research’, *British Medical Journal Open*, 1 October 2015 [[link](#)]

patients so they can ‘track’ who is responsible for their care as they move between providers would represent progress in addressing the current imbalance.

In addition to a host of short-term measures which could be acted upon and implemented in the coming months, we have also made the case for longer-term transformational change to how the interface is managed. We call for the development of ‘interface specialists’ in the coming years, drawn from a variety of professions including doctors, nurses and pharmacists – all of whom have their own relevant ‘specialist input’ to benefit interface working. A dedicated cadre of clinicians, with the ability to operate across settings and to evaluate pathways will become increasingly important. Our recommendations seek to ensure that there is sufficient focus on the development of the capabilities required, and that appropriate education, professional support and contracting is in place.

Lastly, increased research activity across the NHS – and particularly in primary and community care settings – should be regarded as both a means of boosting the spread of the latest treatments and technologies, and to encourage new ways of improving collaboration between predominantly hospital-based research units and their staff, with those working across primary and community services. We also regard an expansion of clinical research activity to be essential in assessing the efficacy of interface-dedicated measures and in evaluating interface specialist roles.

Appendix

The following are expanded outcomes of some of the above papers and of a selection of other relevant recent papers, with our thoughts in bold.

- Akbari et al published a formal Cochrane Review in 2008 entitled 'Interventions to improve outpatient referrals from primary care to secondary care'. Their aim was to estimate the effectiveness and efficiency of interventions to change outpatient referral rates or improve outpatient referral appropriateness. 17 studies involving 23 separate comparisons were included. Interventions were numerous and included professional education, passive dissemination of local referral guidelines, feedback of referral rates plus discussion with an independent medical adviser, dissemination of guidelines with structured referral sheets, involvement of consultants in educational activities, patient management by family physicians compared to general internists, attachment of a physiotherapist to general practices, a new system for referrals, requiring a second 'in-house' opinion prior to referral, and financial interventions. The authors concluded that there were a limited number of rigorous evaluations. Active local educational interventions involving secondary care specialists and structured referral sheets were the only interventions shown to impact on referral rates based on the evidence. The effects of 'in-house' second opinion and other intermediate primary care-based alternatives to outpatient referral appear promising[20].

We believe that these conclusions support the integration of hospital specialists into primary care as well as the need to boost research in community medicine.

Murtagh et al report a systematic review of 22 papers describing integration of primary and secondary care in relation to chronic disease. The authors concluded that regular multidisciplinary team meetings, either GP or nurse led, and/or remote contact between team members working in primary and secondary care services can be effective in terms of ensuring swift transitions between care levels, enhancing patient safety and continuity of care. Results varied on clinical outcomes. Numerous studies supported the idea that integrated healthcare is more cost-effective. Studies that failed to properly integrate IT systems attribute some of the negative results to this lack of electronic support. Ineffective electronic integration can significantly hinder clinical integration. Patients highlighted that inefficient IT systems lead to them becoming 'carriers' of information between care levels[48].

This paper confirms a global ambition to find the best model for

integration of primary and secondary care. We believe the paper confirms that there are potential benefits to integration in clinical outcomes and cost-effectiveness and that thorough prospective audit is required in definitive pilot studies.

- Ballini et al report a review assessing the effectiveness of interventions aimed at reducing waiting times for elective care. It included only formally structured studies. Interventions included a system for streamlining elective surgery services, open access or direct booking/referral, distant consultancy and telemedicine. The authors concluded that no firm conclusions on effectiveness could be made due to the insufficient quality of the evidence. However, interventions involving the provision of more accessible services show some promise[49].

We believe that more accessible services and direct booking opportunities could be improved by hospital specialists working in primary care. There is a clear need for more studies of higher quality that should be a primary output of an increased focus on academic community medicine.

- Blank et al reviewed 140 international studies on interventions to manage referral from primary to specialist care. Interventions were grouped into four intervention categories: GP education, process change, system change and patient focused. The authors concluded that whilst there is clearly no magic bullet, it is nevertheless true that to tackle demand-management of primary care services, the focus cannot be on primary care alone. A whole-systems approach is needed because the introduction of interventions in primary care is often just the starting point of the referral process. In addition, more research is needed to develop and evaluate interventions that acknowledge the role of the patient in the referral decision[42].

We believe that these conclusions support the integration of hospital specialists into primary care and the development of a more academic focus in community medicine.

- The Torfaen Referral Evaluation Project took place in South-East Wales 2007-2008 aiming to engage local GPs and consultants in discussions as to the validity, quality and appropriateness of GP referrals and to increase the quality of those referrals. In a year-long scheme, GPs were funded for weekly protected time to discuss referrals retrospectively, and to attend six-weekly meetings with consultants to discuss the appropriateness of those referrals and the use of alternative community-based services. Referral data were fed back to practices. Referral rates in orthopaedics and emergency admissions showed a striking reduction of up to 50%. Referrals to local services increased. There was a reduction in variation of GP referral rates and a related reduction in overall referral rate.

The reductions appeared sustainable as long as the intervention continued. Once the intervention finished, referral rates rose in keeping with local trend. Consultant involvement in discussions appeared important[[35](#), [50](#)].

We believe that this single study provides further support for the integration of hospital specialists into GP clinics to complement the integration within primary care and to impact on hospital referrals.

- Clarke et al performed a systematic review of 24 studies assessing the effectiveness of guidelines for referral for elective surgical assessment in various surgical specialties. Interventions varied from complex (“one-stop shops”) to simple guidelines. Mixed evidence was reported on rates of referral and costs. The authors concluded that guidelines can improve appropriateness of care by improving pre-referral investigation and treatment. There was no strong evidence in favour of other beneficial effects[[30](#)].

The limited benefits of guidelines are well understood. We believe that hospital specialist integration into GP surgeries would improve guideline-based care through both direct and educational impact.

- The Royal Wolverhampton NHS Trust introduced an integration model in June 2016, through which it is running 10 local GP practices serving over 67,000 people[[51](#)]. They published a report in 2020 assessing the impact of integration on unplanned and emergency care. Across the 10 practices, rates of Emergency Department attendances did not change significantly. There were significant reductions in the rates of unplanned hospital admissions and unplanned hospital readmissions. These effect sizes represented 888 avoided unplanned hospital admissions and 168 readmissions per annum. The estimated savings from the reductions in unplanned care were in excess of £1.5 million[[52](#)].

Whilst we await data on other aspects of the integration, these results are encouraging that primary and secondary care can work together significantly more efficiently when intelligently integrated.

- Winpenny et al reviewed the literature on primary care strategies to improve the effectiveness and efficiency of outpatient services, in 5 intervention domains: transfer of services from hospital to primary care; relocation of hospital services to primary care; joint working between primary care practitioners and specialists; interventions to change the referral behaviour of primary care practitioners and interventions to change patient behaviour. The 183 studies published since 2005, taken with the findings of the previous review, suggest that transfer of services from secondary to primary

care and strategies aimed at changing referral behaviour of primary care clinicians can be effective in reducing outpatient referrals and in increasing the appropriateness of referrals. Availability of specialist advice to primary care practitioners by email or phone and use of store-and-forward telemedicine also show potential for reducing outpatient referrals and hence reducing costs. There was little evidence of a beneficial effect of relocation of specialists to primary care, or joint primary/secondary care management of patients on outpatient referrals. Across all categories there was little evidence on cost-effectiveness. *The authors concluded that a move for specialists to work in the community is unlikely to be cost-effective without enhancing primary care clinicians' skills through education or joint consultations with complex patients.* [53]

We believe that these results support hospital specialist medicine in GP practice, rather than transfer of secondary care into the community. Quality research is required to investigate cost-effectiveness.

- A review article by Price et al shares concerns about cost-effectiveness. It states that shared care by GPs and specialists for patients with chronic heart failure after discharge from hospital can deliver better patient survival. Existing models of shared care, including specialists working in hospital-based outreach clinics and cardiology care organised by UK GPs, have demonstrated reductions in referral rates. *The authors concluded that current research supports the management of certain chronic health conditions in primary care based on the integration of GPs and specialists, availability of reliable evidence about cost-effectiveness, health care outcomes, patient preference and incentives for GPs. Evaluation of such schemes is mandatory, however, to ensure that the expected benefits do materialise.*³³¹

We believe that this paper confirms the potential benefit of integration of primary and secondary care and the need for quality studies in community medicine.

- Most of the papers reviewed point to the conclusion that successful optimisation of the GP-consultant interface is central to future work in the NHS and that specialist knowledge embedded in GP practices is always beneficial. Furthermore, whilst academic ambition in primary care is thriving it is not supported with adequate academic support.

331.E. Price et al., 'Organisation of services for people with cardiovascular disorders in primary care: transfer to primary care or to specialist-generalist multidisciplinary teams?', *BMC Family Practice*, pp. 158. 2014 [link]



£10.00
ISBN: 978-1-910812
Policy Exchange
1 Old Queen Street
Westminster
London SW1H 9JA

www.policyexchange.org.uk