Re:State

HOSPITAL OF THE FUTURE

Ending the patient gridlock

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ABOUT RE:STATE

Re:State (formerly the *Reform* think tank) is established as the leading Westminster think tank for public service reform. We believe that the State has a fundamental role to play in enabling individuals, families, and communities to thrive. But our vision is one in which the State delivers only the services that it is best placed to deliver, within sound public finances, and where both decision-making and delivery is devolved to the most appropriate level. We are committed to driving systemic change that will deliver better outcomes for all.

We are determinedly independent and strictly non-party in our approach. This is reflected in our cross-party Advisory Board and our events programme which seeks to convene likeminded reformers from across the political spectrum.

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ABOUT RE:IMAGINING THE STATE

After a decade of disruption, the country faces a moment of national reflection. For too long, Britain has been papering over the cracks in an outdated social and economic model, but while this may bring temporary respite, it doesn't fix the foundations. In 1942 Beveridge stated: "a revolutionary moment in the world's history is a time for revolutions, not for patching." 80 years on, and in the wake of a devastating national crisis, that statement once again rings true. Now is the time to fix Britain's foundations.

Re:State's programme, 'Re:Imagining the State', puts forward a bold new vision for the role and shape of the State. One that can create the conditions for strong, confident communities, dynamic, innovative markets, and transformative, sustainable public services.

'Re:Imagining Health' is one of the major work streams within this programme.

ABOUT RE:IMAGINING HEALTH

This paper is part of the ‘Re:Imagining Health’ work stream. While the National Health Service was once visionary, as demand rises and outcomes deteriorate, a fundamental rethink is needed. The current model no longer works for patients, who too often struggle to access high-quality timely care; for medical staff, who feel disempowered, stressed, and burnt out; or for taxpayers, who foot an increasing bill for a service which is struggling to cope. In short, the structures and institutions designed to meet the challenges of the post-war world are not equipped to deal with our current and future health challenges.

'Re:Imagining Health' seeks to explore how to transform England’s approach to health. It will consider how to move from a treatment-oriented model to one geared towards health creation, the changes necessary in healthcare to facilitate this, and how to build a fair and sustainable approach to funding.

Re:Imagining Health Council

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- Dr Stephen Black, Freelance NHS Analyst and Commentator; Author, *Health Service Journal's* weekly 'The mythbuster' column
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The arguments and any errors that remain are the authors' and the authors' alone.

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Recommendations

Aligning capacity and demand

Recommendation 1: In order to improve the implementation of patient flow technologies (and technology in general) the Government should launch an NHS Change Leadership Accelerator (partnered with the new management accreditation in Recommendation 18). This should include mandatory rotations spanning NHS trusts, primary care, Integrated Care Systems (ICSs), and local government. It could also involve key private sector partners such as consultancy services who have well-established change management practices, as well as healthcare technology firms and medical device companies. This would be coordinated by DHSC, with staff allocated to ICSs accordingly.

Recommendation 2: DHSC/NHS England should expedite the use of innovator passports for certain categories of innovations, such as technologies that significantly enhance operational efficiency and increase patient flow, such as teletracking tools, AI demand and flow prediction, digital twins, etc.

Recommendation 3: In order to address the business case challenge, trusts should share their established process and technologies as a blueprint business case for other to quickly use, with pre-approval from NHSE/DHSC for relevant sections of the case, and have an accelerated approval path for high impact investments.

Recommendation 4: Building on existing reforms in the 10 Year Plan, the DHSC/NHS England should accelerate efforts to simplify and speed up capital approvals by introducing statutory or contractual deadlines for approvals with clear maximum decision timelines to avoid unnecessary delays.

Recommendation 5: NHS England/DHSC should commission a rapid evaluation of the cost-effectiveness of investing in the discharge and community workforce. This should compare the marginal cost of staffing expansion to the cost of delayed discharges, hospital length of stay and blocked elective activity.

Recommendation 6: The imminent workforce strategy following the 10 Year Health Plan should comprehensively assess the necessary capacity for the multidisciplinary roles critical to discharge – including occupational therapists, pharmacists, and discharge coordinators – and determine what is needed to support safe, effective seven-day discharge working. This should be swiftly followed by an update to national contracts and commissioning guidance to enable seven-day working for these roles and training pathways to support recruitment and retention. The workforce should then be remodelled to support these roles. The recommendation for clinicians is covered in Recommendations 10 to 17.

Recommendation 7: A portion of the Better Care Fund should be allocated specifically to the seven-day discharge functions by central government. ICBs should coordinate a targeted, funded strategy to grow the community discharge workforce including care package assessors, reablement teams, and housing officers. This should include dedicated recruitment pipelines for local government employed staff working at the hospital interface, funding for weekend working across adult social care and shared accountability for flow across ICS and local authority boundaries.

Recommendation 8: The Government, with support from the Royal Colleges, should commit to rolling out nurse-led discharge where certain pre agreed criteria are met. Implementation should begin with specific high volume pathways where criteria can be clearly defined. Once proven at individual pathway level, the approach should be scaled more widely across the NHS.

Recommendation 9: The Government should commit to rolling out a seven-day discharge workforce in at least five ICSs by the end of this Parliament. These ICSs should serve as national demonstrator sites, testing the workforce models, contractual changes, and partnership mechanisms needed to support reliable, 12 hours-a-day, seven-day discharge.

Operational inefficiency and internal bottlenecks

Recommendation 10: The Government should create a new hospitalist medical specialty specifically to deliver clinical generalism for patients with multiple undifferentiated problems in both hospital and community settings. This specialty should incorporate many of the responsibilities of a hospitalist from other countries, trained specifically in managing inpatient wards, diagnosing undifferentiated problems, and leadership and management practices. This is a role where additional training in the key principles behind good operational management would have the biggest impact. It should also incorporate extensive training in the community, including intermediate care units, rehab wards, hospital at home, virtual wards, and residential care.

Recommendation 11: Alongside the Royal Colleges, the Government should investigate the potential to increase dual Certificate of Completion of Training (CCTs) for specialties where demand is growing considerably in response to demographic shifts. This could involve combining more generalist specialties with respiratory, cardiology, neurology, and palliative medicine.

Recommendation 12: In order to identify the training places needed both for a hospitalist specialty, and other generalist-adjacent specialties, the Government should use the comprehensive cost-benefit analysis (outlined in Recommendation 13) of consultant presence in hospital to identify the appropriate number of training places the new specialties would ideally need, and in turn the investment in deanery placements, assessments and supervision structures for the new training programme.

Recommendation 13: The Government should introduce incentives to encourage doctors to apply to generalist specialisms. Pursuing and completing a generalist route could involve a number of different financial incentives deliberately designed around finishing training: this could include a ‘golden hello’ payment, with half paid upon starting ST4 and half paid when fully qualified as a hospitalist, additional payments for completing each year of training, or additional payments on completion of training.

Recommendation 14: The Government should both conduct a cost benefit analysis of increased doctor coverage on wards in conjunction with a funding pot specifically for the recruitment of doctor-based ward management. The cost benefit analysis should weigh the cost of lost elective income due to poor flow versus saved bed days and improved throughput. The findings from these analyses should inform the baselines set at a government level as well as additional funding allocations for generalist doctor coverage in hospitals with particularly poor patient flow. The entire workforce plan should be remodelled to support more of these roles.

Recommendation 15: Given that every hospital starts from different baselines, there will inevitably be a cohort facing persistent challenges that require more intensive support in addition to financial assistance for more doctors. Government should invest extensively in its performance management capacity – whether through the Downing Street Delivery Unit, DHSC or NHSE – to provide focused oversight and intervention. Crucially, this function must have the capability to engage directly with frontline teams, diagnose the root causes of underperformance, and work with local leaders to drive sustained improvement.

Recommendation 16: The Government should fund supplemental banding for LE doctors taking on ward management, patient flow oversight and weekend working. In order to make LE roles stepping stones into training specifically for the hospitalist consultant specialism, the Government should mandate that all LE contracts would give LE doctors access to a clinical or educational supervisor to sign off on competencies for specialist applications and study leave, rather than treating it as a rota filling role with no structured career development support. Ward management experience should also be linked to eligibility for higher band LE roles.

Recommendation 17: Rather than voluntary uptake, LE contracts should mandate a baseline share of overnight and weekend working for all LEs with flexibility on how it is scheduled. To make this fairer, contracts should offer some time based incentives that offer more protected study leave/guaranteed weekday nonclinical time for development in exchange for weekend coverage.

Recommendation 18: The Government should formalise management titles and provide uniformity across the NHS. Alongside this, the Government should abolish the NHS Leadership Academy and instead establish its own professional accreditation for NHS operational managers in a similar vein to the Nursing and Midwifery Council (NMC) for nurses and midwives, or the General Medical Council (GMC) for doctors. The professional body should govern standards and the government mandate uniform titles, legislate accreditation and give it parity of esteem with the GMC or NMC. This will also require funding for transitional accreditation so existing staff can upskill and register.

Recommendation 19: Every new operational manager should be paired with a manager or where appropriate, clinical staff, such as a nurse, as a mentor who can help act as a management coach either within the hospital or within the ICS. This provides a relatively low cost way to provide advice from experienced managers within the NHS.

Recommendation 20: The Government should expand the number, quality and visibility of apprenticeship routes into NHS operational management, especially at Band 3 to 5 levels. These should be nationally standardised, integrated into a recognised career framework and lead to professional accreditation aligned with the proposed NHS management council or licensing body.

Bottlenecks at the back door

Recommendation 21: In the short-term, government should seek to boost hospital transport capacity, and provide hospitals with a dedicated transport improvement fund for them to deploy as they see fit. Government should also require hospitals to report transport related discharge delays, to give hospitals, ICSs and government visibility and benchmarking data to tackle the problem internally. The combination of these interventions could also result in trusts and ICSs collaborating on transport infrastructure at scale to reduce costs.

Recommendation 22: As part of Recommendation 2, trusts should be explicitly encouraged to invest in automation and ambient AI technologies via the Innovator Passport, that can expedite some of the traditional frictions in the discharge process, such as prescriptions or discharge letters respectively.

Recommendation 23: The Government should develop a centrally supported programme to implement the 10 highest impact flow interventions nationally, building on existing national programmes. Additionally, trusts should be required to map discharge related frictions and demonstrate in their operational plans how they are exploring automation or AI-enabled solutions to address them, drawing on the Innovator Passport where appropriate. NHS England should collate and publish exemplars where these technologies have delivered measurable discharge improvements.

Recommendation 24: ICSs and local authorities should be funded to create a new tier of cross-agency discharge coordinators, with the capacity for at least one per hospital, with the authority to resolve disputes on funding and legal arrangements and escalate where necessary. This should be accompanied by new clear contractual mechanisms for sharing discharge risk. ICSs could also agree to empower this role through Section 75 pooled budget arrangements, granting them the ability to resolve budget disputes where necessary.

Recommendation 25: A small number of targets, ideally one to three, should be introduced at the ICS and local authority level. These targets should focus on the time from a declaration that a patient is fit for discharge to actual discharge and/or the success of their reablement with bonuses or penalties applied.

1. Introduction

This is the third paper in *Re:State's* series, 'Hospital of the Future'.

The first paper framed the challenges facing hospitals – costs are growing, performance and productivity are stagnating, and access and patient experience is declining – and made the case for a fundamental reset.[1] The second, *Hospital as a service, not a building,* argued that the very idea of a hospital needs to fundamentally change, moving away from the physical building to a model that sees hospital care as accessible anywhere, at any time.[2] The recommendations in that paper would drive meaningful advantages in clinical care, patient experience, productivity and cost efficiency.

However while a significant shift of care out of the hospital building is both desirable and possible, some care must still be provided within the building. Yet the experience of patients attending hospital is mired by waiting, uncertainty and a sense of being passed from queue to queue. This perpetual inefficiency and fragmentation underscores an ongoing, fundamental crisis for secondary care. This paper addresses how a hospital should operate to address this.

Today, hospitals have a workforce organised around 9-to-5 rather than 24/7; a system that prioritises narrow clinical specialisms over the holistic care that patients with multiple conditions need; a wholesale undervaluing of managers; and a discharge process hampered by poor accountability and inefficiency. Indeed across England, throughout February 2025, at the height of the winter crisis, there were on average 13,740 patients stuck in hospital despite being medically fit to leave.[3] This is equivalent to nearly 23 hospitals' worth of inpatients who no longer needed to be in hospital.

In recent years, there has been a growing consensus that a failure to manage patient flow – the movement of patients in, out and through hospitals – is the origin of a litany of hospital crises. Queues and delays, poor capacity utilisation, variability of workload and stress, errors and placement of patients in inappropriate settings can all be attributed to this basic underpinning of hospital process.

Rethinking patient flow – how demand is managed, capacity matched and bottlenecks unblocked – is an essential cornerstone of the Hospital of the Future. Done well, it unlocks capacity without new money or beds, improves quality and safety, and underpins an efficient, productive hospital model. Optimising flow is a basic prerequisite for an NHS facing relentless growth in both the volume and complexity of demand. This is a process that can be managed much like a factory but we choose not to do this.

Hospitals have long been treated as a black box in public policy – resources and patients go in, results emerge, but the inner workings remain opaque. This paper seeks to open that box, examining what happens inside hospitals that undermines their effectiveness and efficiency. This final report of the 'Hospital of the Future' programme explores how hospitals can transition to a model where patients flow seamlessly through the system, at less cost to themselves, the system and the taxpayer.

[1] Rosie Beacon et al., *Hospital of the Future: A Framing Paper* (Reform Think Tank, 2024).
[2] Rosie Beacon et al., *Hospital of the Future: Hospital as a Service, Not a Building* (Re:State, 2025).
[3] NHS England, *Acute Discharge Situation Report* (2025).

This paper outlines some of the investments that may need to be made to ensure the long-term sustainability of the hospital system in the NHS. Ultimately, hospitals cannot escape the crisis cycle unless policymakers confront these trade-offs head-on.

2. Explaining patient flow

Patient flow refers to the movement of patients through departments, locations, staff groups and processes throughout their treatment and care, from their first point of contact until the resolution of their problems and discharge from all services.

To achieve good patient flow, resources need to be efficiently managed to ensure the right staff and clinicians, diagnostics and treatments are available at the exact time and place they are needed. As the movement of patients slows down, waiting times and costs increase, while quality and experience decline. In short, patient flow is at the heart of an effective system.

2.1 Patient flow and the productivity crisis

A mismatch between demand for, and supply of, services is commonly cited as the reason for many of the problems in hospitals – i.e. that demand has grown faster than the supply of staff and services, resulting in long waits and rationing of care.

However, this is routinely discredited by available data. The issue is less about numbers and more about how those numbers are deployed.

In reality, demand for emergency hospital care has grown quite slowly while the numbers of clinical staff in hospitals has increased substantially, and spending for acute care has increased more than spending for primary, community and social care. Yet despite resources for hospitals increasing proportionally more than demand, outcomes have worsened – costs are growing, performance and productivity are stagnating, while access is declining.[4]

Figure 1 shows the number of A&E attendances each month from December 2010 until December 2024 and the percentage of those attendees who received their treatment and were discharged, transferred or admitted within the four-hour target time. These graphs show that despite attendances growing at a slow and steady rate, A&E performance against the four-hour target – a reasonable indication of patient flow in A&E – has worsened substantially.

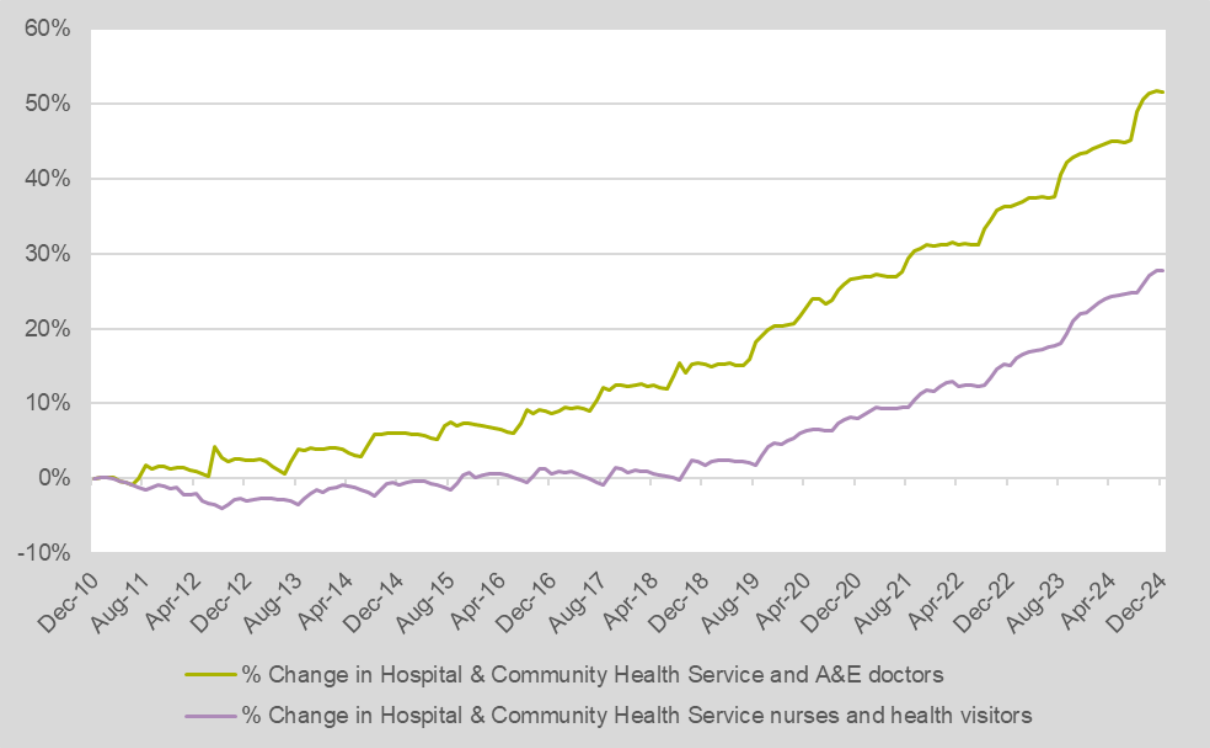
[4] Beacon et al., *Hospital of the Future: A Framing Paper*.

Figure 1: Monthly A&E attendances from December 2010 to 2025

Source: *Reform,* 'The A&E crisis: what's really driving poor performance?', February 2023; NHS England, *A&E Attendances and Emergency Admissions*, 2025.

Figure 2 (below) shows the percentage increase, from December 2010 until December 2024, in the number of hospital and community health service (HCHS) doctors – all secondary care doctors – and the number of secondary care nurses and health visitors. Both NHS clinical staff groups have continuously increased at a much faster rate than demand. This suggests that poor performance in hospitals is the result of something other than the balance of supply and demand.

Figure 2: Secondary care staffing increases since 2010



Source: *Reform,* 'The A&E crisis: what's really driving poor performance?', 2023; NHS England, *NHS Workforce Statistics - December 2024*, 2025.

Input is increasing while output is decreasing. This phenomenon has led many to question what is driving the productivity crisis in hospitals, and a recurring feature of this analysis is the idea of patient flow. It is worth noting that patient flow, productivity and efficiency are related, but are not the same thing.

- **Productivity:** The amount of output (e.g. number of patients treated or services delivered) produced per unit of input (e.g. staff hours, equipment, costs)
- **Efficiency:** How well resources are used to achieve a desired outcome, with minimum waste of time, effort or resources.
- **Effectiveness:** Achieving the desired outcome or goal regardless of how many resources it takes.
- **Patient flow**: The health system's capacity to align patient needs with available resources in the right sequence at the right time.

Patient flow is a crucial *driver* of efficiency and productivity in hospitals. Flow is the mechanism by which resources are turned into outputs. It determines how long patients wait in A&E, how long patients occupy a hospital bed, or how long patients wait for diagnostic tests or drugs – poor patient flow management means unnecessary delays to these. Without understanding how effectively hospitals align patient needs with available resources, it is impossible to improve clinical outcomes, operational efficiency, or tackle the overall productivity crisis in hospitals.

2.2 Why patient flow is important

Poor patient flow in hospitals can result in numerous clinical and efficiency problems. It creates overcrowding, delays receiving care and treatment, cancelled elective procedures, delayed internal transfers, fragmented care (e.g. unnecessarily repeated tests or conflicting treatment), delayed discharge, and ambulance handover delays (often leading to slower ambulance response times in the community).

In essence, poor patient flow risks avoidable and unacceptable patient harm, and builds in unnecessary costs.

2.2.1 Clinical impact

In 2023, there were over 268 excess deaths each week in hospitals associated with patients waiting more than 12 hours in A&E, the majority of whom were awaiting inpatient hospital admission.[5] In January 2025, more than 90 per cent of nurses reported patient safety is being compromised by 'corridor care' – patients receiving care in overcrowded and unsuitable places such as corridors, converted cupboards and even carparks – a form of care that is increasingly common.[6]

The last four winters, between 10 and 25 per cent of ambulance patients have had to wait over an hour for their handover from an ambulance clinician to a hospital clinician.[7] Patients whose ambulance handover is delayed by this much have a 9 per cent chance of this causing severe harm, a 23 per cent chance of this causing moderate harm and a 53 per cent chance of this causing low harm.[8] In February 2025, 4,634 ambulance hours were lost every day due to handover delays.[9]

Patients experiencing discharge delays have an increased risk of mortality, hospital-acquired infections, mental health issues, reduced mobility, and reduced functionality including ability to carry out day-to-day tasks.[10]

This worsening patient flow problem is especially evident in emergency care. In March 2024, the number of patients waiting 12 hours or more for admission to hospital from A&E, once a decision to admit was made, was 143 times higher than in March 2015, impacting 141,693 patients.[11] Last winter, November 2024 to February 2025, over a quarter of patients attending A&E consistently waited longer than the four-hour target to be treated and admitted, transferred or discharged.[12]

[5] 'Almost 300 Deaths a Week in 2023 Associated with Long A&E Waits despite UEC Recovery Plan', *Royal College of Emergency Medicine*, 1 April 2024.
[6] 'RCN Report Reveals Harrowing Statements from Thousands of Nursing Staff, Showing How Widespread the Issue Is across the UK.', *Royal College of Nursing*, 16 January 2025.
[7] Association of Ambulance Chief Executives, *National Ambulance Data: Demand, Response and Hospital Handover Data to the End of February 2025* (2025).
[8] Association of Ambulance Chief Executives, *Delayed Hospital Handovers: Impact Assessment of Patient Harm* (2021).
[9] Association of Ambulance Chief Executives, *National Ambulance Data: Demand, Response and Hospital Handover Data to the End of February 2025*.
[10] Antonio Rojas-García et al., 'Impact and Experiences of Delayed Discharge: A Mixed-studies Systematic Review', *Health Expectations* 21, no. 1 (2018): 41–56, https://doi.org/10.1111/hex.12619.
[11] Beacon et al., *Hospital of the Future: A Framing Paper*.
[12] NHS England, *A&E Attendances and Emergency Admissions* (2024).

Vast numbers of hospital bed days are lost due to delays discharging patients who are medically fit for discharge. NHS England data shows the total number of bed days lost due to discharge delays in the last week of June 2025 was 124,982.[13]

2.2.2 Financial impact

There is no official estimate of the direct costs of increased length of stay and delayed discharge. This would include staff time spent on additional NHS care and overheads from an overnight stay. But analysis by The King's Fund estimated it to be at least £1.7 billion in 2022-23.[14]

Indeed, in 2022, the Department of Health and Social Care estimated that speeding up hospital discharge could save the NHS more than £7 billion over a decade.[15]

Increased length of stay also results in more healthcare acquired infections (HCAIs) – in addition to being unpleasant for the patient, these are costly for the system. For example, in 2016-17, HCAIs accounted for a total 5.6 million hospital bed days, costing the NHS an estimated £2.1 billion.[16] This number does not account for discharge delays specifically – in turn meaning the patient could have got the infection prior to being medically fit to discharge – but delayed discharge does increase the likelihood of a HCAI.

There are also indirect opportunity costs of poor patient flow. If staff are having to care for patients who no longer need to be in hospital, then this is a suboptimal use of resources that could be better deployed. This can also sometimes require the additional expense of locum staff, as permanent staff may be diverted from other departments or specialties to cover the wards where patients are stuck, or due to the increased workload on existing permanent staff. And financially, this capacity may also mean that less elective procedures or activity can take place, which is a significant revenue stream for hospitals.

2.3 Understanding the problem

The processes underpinning flow can vary extensively between hospitals – different hospitals will have different relationships with their local authorities to organise discharge, different ward configurations and different population need.

In addition, a patient's journey through health and care services can be highly varied, depending on a wide variety of factors including their medical concern(s), their first point of contact, the decisions taken by clinical staff about their treatment, service availability and the patient's socioeconomic context.

Lastly, unlike many other public services, hospitals co-locate many varied functions and processes in one building, including diagnostics, laboratories, operating theatres, accident and emergency, and inpatient wards. As the setting in which the most time-sensitive demand presents and the types of treatment provided are the most resource intensive and specialist,

[13] NHS England, *Acute Discharge Situation Report*.
[14] David Maguire, *The Hidden Problems behind Delayed Discharges and Their Costs* (The King's Fund, 2023).
[15] Henry Anderson, 'Discharge Reform Could Save NHS £7 Billion, Claims DHSC', *Health Service Journal*, 15 November 2022.
[16] Julian F Guest et al., 'Modelling the Annual NHS Costs and Outcomes Attributable to Healthcare-Associated Infections in England', *BMJ Open* 10, no. 1 (2020): e033367, https://doi.org/10.1136/bmjopen-2019-033367.

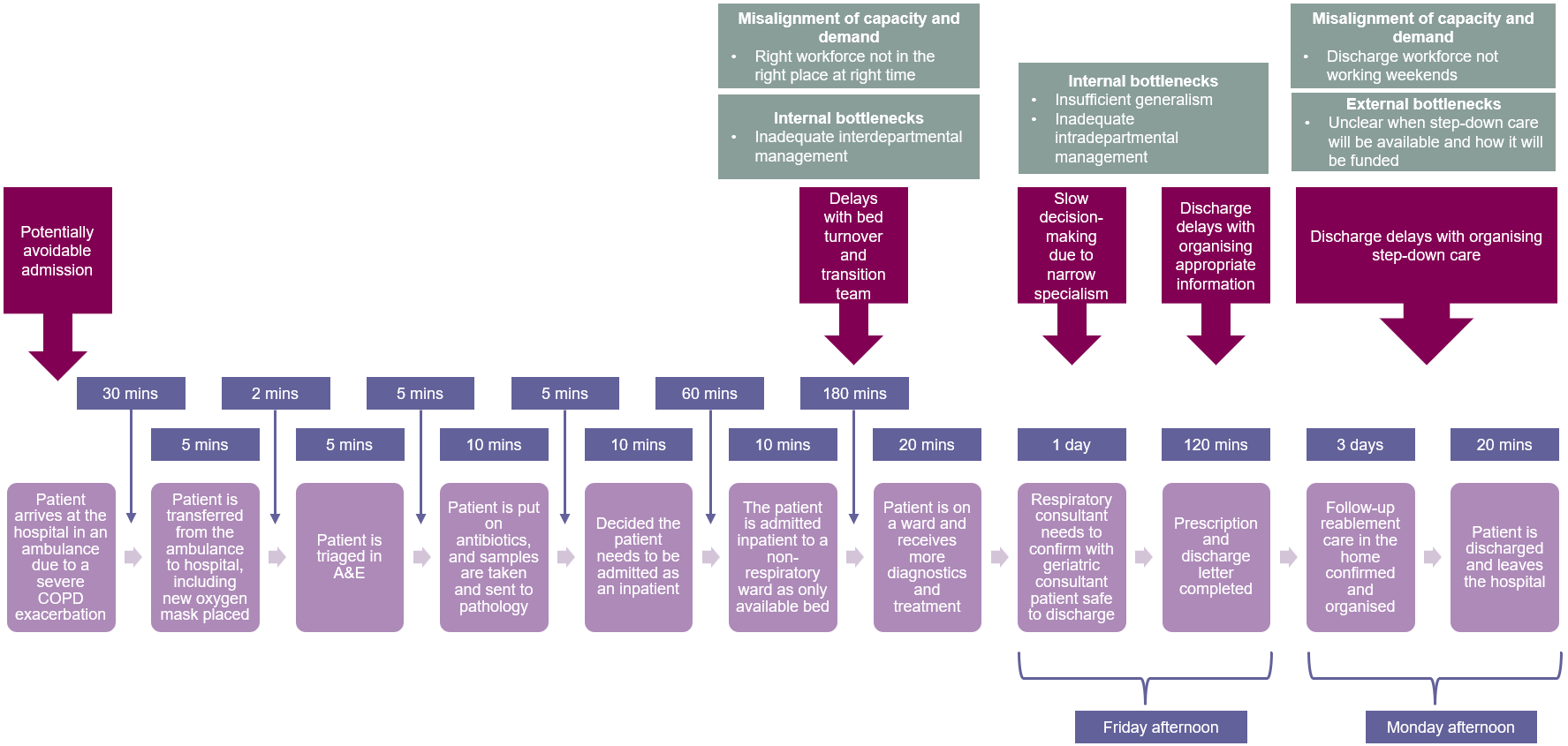
how services are allocated needs to be constantly re-prioritised to ensure the right patients are seen first.

Government cannot therefore, and should not, dictate the individual interventions trusts should take to optimise patient flow. Different hospitals will have different starting points. Rather, central government should guarantee the conditions for patient flow improvements exist. The recommendations in this paper tend to be prescriptive on the ends, while leaving the means up to trusts, and sees the role of government to facilitate the means.

As shown in Figure 3 below, patients encounter numerous stages during their hospital journey where internal and external bottlenecks arise. Analysing these bottlenecks reveals three overarching themes that align with the sequential steps of a patient's hospital experience. These include:

1. **Aligning demand and capacity** – assuming the demand is only from those patients who need to be there, this refers to how hospitals can align their capacity more precisely with the demand;
2. **Unblocking internal bottlenecks** – how hospitals can improve internal dysfunctions that needlessly obstruct progress in patient flow; and
3. **Managing external bottlenecks** – how hospitals, and the system, can improve how they manage bottlenecks they cannot always control.

Figure 3: Indicative patient flow for an elderly patient with an exacerbation of Chronic Obstructive Pulmonary Disease



2.4 Principles of patient flow reform

Underlying this analysis of patient flow are three key principles for policymakers when improving the output of hospitals.

1. **Optimising one service area does not automatically result in performance improvements across the wider hospital.**

It is important to consider how all sub-systems in the hospital interact and take into account the whole system. Hospitals have multiple interdependencies and can work in non-linear ways. Interventions in one area can have unintended consequences elsewhere, for example reducing surgery waiting times might overload recovery wards or cause bottlenecks in community care if follow up support isn't ready.

Because of the complexity, feedback loops and interdependencies between different functions in the hospital, there is not always a predictable relationship between cause and effect. For example, hiring 10 per cent more nurses does not necessarily mean 10 per cent more care is delivered.

Queues can happen regardless of whether beds are available or not. The constraint is the ability to move patients in and out of them. Earlier discharge alone will not solve problems with flow, unless it is matched with sufficient service capacity in other parts of the hospital – in diagnostic tests, specialist reviews or a decision to admit – to maintain flow.

2. **Matching resource and capacity to demand more precisely will be more effective than increasing space.**

It is easy to default to the notion that simply increasing bed capacity – and therefore increasing space – will help overcome flow problems. But as this paper will outline, simply adding more beds will not remediate internal or external bottlenecks, nor misalignments between supply of resources and demand of patients.

Of course, if bad patient flow processes exist, then low bed numbers will make that worse. But good flow and more beds are not the same thing. For example, Korea has among the highest bed to population ratio among OECD countries (nearly three times the OECD average), but with an average length of stay of 16 days or over in 2021 (the OECD average is 7.7 days).[17] This is a key indicator of poor flow.

Identifying the space needed for optimal flow will vary depending on the hospital. It is true that more space is often needed for patients to travel through the system faster. However, there is some evidence to suggest that trusts that have met the four-hour A&E standard predominantly have *higher* rates of non-elective and total admissions to hospital per citizen.[18] This is not necessarily ideal as the patients may be admitted where they otherwise would not have been in order to meet the target.

However, it does show that the space created for planned procedures can often serve as a buffer to surges in demand for urgent care. Typically, elective occupancy peaks at different times of the day and week to non-elective activity. The result runs counter to advice to reduce

[17] OECD, *Health at a Glance 2023: OECD Indicators*, Health at a Glance (OECD, 2023), https://doi.org/10.1787/7a7afb35-en.
[18] Sasha Karakusevic, *Understanding Patient Flow in Hospitals* (Nuffield Trust, 2016).

admissions, and in turn increase space, to resolve flow problems. Provided extra space to deal with demand surges is available and planned for, then sufficient flexibility is available.[19]

3. **Some obstacles to flow will not be directly within the hospital's control but it will be within their control to optimise the management of this.**

In theory, discharging patients early in the day makes sense: it ought to be possible to plan discharge between 8am and 12 noon with some reliability. In practice however, it is much harder to achieve. Anything that involves transitions from hospital to home is a complicated process requiring a number of tasks involving both value judgements from numerous members of staff and logistical coordination to deliver the next stage of care.

Coordinating discharge planning and the coordination of care for older people with complex care needs is a typical example of this. Complicated discharge also often involves a homeless person or an individual who needs reablement support, or whose housing is uninhabitable, or whose accommodation is unsuitable given the progression of their dementia. The patient can also be difficult to place if they are considered to be more challenging for care workers, e.g. verbally abusive or an alcoholic.

This inevitably creates dependencies outside the hospital. However, as this paper will outline, the way hospitals manage discharge is fundamentally inefficient. It does not have the sufficient workforce working at the right times, and the actual process itself is mired by avoidable delays and fragmentation. To suggest that the problem merely exists outside of the hospital ignores the problems within the hospital.

[19] Karakusevic, *Understanding Patient Flow in Hospitals*.

3. Aligning capacity and demand

Fundamental to the concept of patient flow is the notion that staff are in the right place at the exact time they are needed. A basic prerequisite for delivering this is the capability to align capacity and demand with precision. In hospitals, this is challenging: every patient journey is unique, each function is interdependent, and patients must be continually reprioritised based on clinical urgency.

This requires creating a system equipped to manage uncertainty and dynamism. This is not impossible and has been made significantly easier with rapid advancements in technology. However, the current system is mired by outdated approaches to demand measurement and workforce planning, meaning capacity is not always allocated as effectively as possible.

The approach, particularly for the purpose of flow, needs to be more targeted to demand. In turn, it means that the composition and working pattern of the hospital workforce needs to be reconfigured to ensure the specific staff who are necessary to make flow happen are available when they are needed and, as part of this, whether they are operating five days a week 9-to-5 or 24/7.

Patients do not disappear on weekends but the staff required to manage flow often do, resulting in a fundamental misalignment between demand and capacity, where demand artificially surges on a Monday to compensate for the reduced activity on the weekend. It is clear from interviews and from evidence that, for example, a key feature of aligning capacity and demand is to create a seven-day discharge workforce.

Even if the patient flow benefits this creates enables more efficient spending, hiring more staff and paying them to work for more days will inevitably increase costs. A key question therefore for policymakers when it comes to effectively aligning capacity and demand in hospitals – and therefore significantly improving patient flow – is the degree to which they are willing to increase investment in hospitals. This means that significantly improving hospital efficiency could come at the expense of building out other areas of the health system.

3.1 Measuring and managing demand

Aligning capacity and demand is both a matter of improving how demand is measured and how capacity can be structured to meet that demand.

When measuring demand, the most important questions are:

- Does this measurement accurately reflect *in real time* the demand on the hospital; and
- Does this measurement reveal what is preventing demand from being met?

Realistically, while there will be surges in demand, the type of demand that would require significantly more staff (e.g. a national emergency) happen rarely and there are specific protocol in place for these. Where demand and capacity need to align more effectively is in the adjustment of near-term staffing and bed patterns to meet day-to-day and shift-to-shift variations in patient volume.[20]

[20] Patricia A. Rutherford et al., *Achieving Hospital-Wide Patient Flow*, IHI White Paper (Institute for Healthcare Improvement, 2017).

Resources needed to move people in and out of beds can peak at different times to the actual occupancy. Managing variability is not simply a question of staffing levels but of matching demand with the specific resources available – enabling efficient patient flow requires a specific group of roles. Any approach to aligning capacity and demand should focus on this group, rather than a generalised approach to overall capacity, for example through doctor- or nurse-to-patient ratios.

Therefore, most importantly for aligning capacity to demand are two questions (this is explored in Section 4.2):

- Who are the staff critical to enabling flow; and
- What is the working pattern of those groups of staff (e.g. standard 9-to-5 or continuous coverage)?

3.1.1 Assessing the efficacy of patient flow

In order to effectively understand patient flow and the scale of demand in a hospital, hospitals need metrics that can:

- Assess the efficacy of patient flow in any given hospital; and
- Identify why optimal flow is not being achieved.

For example, bed occupancy may indicate that the hospital is running at capacity but it cannot reveal why. Many of the metrics used to measure patient flow will not in and of themselves explain what is causing congestion.

The limitation of many current measurements is that they are 'point in time' measurements rather than continuous data. Different hospitals will use different approaches but generally, current bed modelling techniques are based on counting occupied beds at midnight. In hospitals, the 'midnight census' is the official count of inpatients at 11:59pm each day, used as a snapshot of bed occupancy.[21]

However, this approach is outdated. With the increase in day patients, the reliability of the midnight census has rightly been questioned due to fluctuations in bed occupancy throughout the day from the churn of patients arriving and departing.[22] This is not adequately accounted for when measuring occupancy around midnight.

Upon admission, the scheduling of beds is often managed by a human team who rely on individual expertise, similar to air traffic control.[23] Bed allocation upon admission is not straightforward: demand and capacity is complex, bed management teams manage hundreds of beds, and the expertise of staff varies. Similarly, the most common approach across many NHS departments remains a reliance on spreadsheets. The manual process for capacity planning is time-consuming and can mean planning by averages.[24]

Once a patient is fully admitted into a ward, the alternative to real-time monitoring involves manual tracking of beds – phone calls to different wards, physically attending wards, and

[21] Karakusevic, *Understanding Patient Flow in Hospitals*.
[22] Rutherford et al., *Achieving Hospital-Wide Patient Flow*.
[23] *Improving Hospital Bed Allocation Using AI* (NHS England, 2025).
[24] *How to Support Healthcare Staff and Achieve Operational Excellence* (Simul8, 2025).

writing down which beds are available. The efficiency loss of gathering this data manually is clear.[25]

In order to plan more dynamically, the metrics themselves must be more dynamic.

The importance of using multiple measurements for patient flow

There is no single measure of the efficacy of patient flow, meaning several measures are needed to obtain a comprehensive understanding of flow. This could include:[26]

- Occupancy rate
- Number or percentage of readmissions within 30 days of discharge
- Number or percentage of healthcare-acquired conditions
- Average length of stay
- Waiting time of presentation at A&E to admission

Even with multiple measures, each data point has significant nuance. For example, it is certainly true that an increase in length of stay for long-stay patients increases congestion which reduces flow. But small variations in length of stay for short stay patients can also impact flow because of the speed with which they move through the system.

On the one hand, as hospital stays lengthen, available resources reduce, congestion increases, and flow slows down. If length of stay is increasing, then flow is decreasing. But if a patient is moving faster through the system, they use more resources more quickly in the same amount of time, in comparison to a patient who needs the same amount of resources but is moving through the hospital at a slower pace.[27]

An additional difference between zero/day case patients versus longer stay patients is that the former use *different types* of resource. They need to access diagnostics, pharmacy and various staff members within a shorter amount of time. This means that the risk of congestion can be similar even if they are in the hospital for a shorter amount of time, because they are vulnerable to the functional interdependencies within the hospital. Whereas longer stay patients need access to these functions, but over a longer time period, while continually using other core resources such as beds.

Average length of stay will not immediately reveal this information because it will disproportionately skew towards a smaller number of very long stays, but shorter stays are also important to understand when identifying the causes of congestion.

A *predictor* of flow congestion would be an increase in the length of stay specifically for the longer staying patients, because this group disproportionately increase the amount of bed days being used. Deviation from standard measures of length of stay for specific conditions could for example indicate to managers that a patient could potentially be experiencing discharge difficulties and may warrant investigation.

3.1.2 Identifying the solutions

Hospitals need to be able to measure both the efficacy of patient flow and identify what might be undermining it in real time, using data pulled from multiple sources and presented in a clear

[25] Cora Lydon, 'Maidstone and Tunbridge Wells Expand Patient Flow Platform', *Digital Health*, 19 July 2022.
[26] Rutherford et al., *Achieving Hospital-Wide Patient Flow*.
[27] Rutherford et al., *Achieving Hospital-Wide Patient Flow*.

way to hospital clinicians and managers to act on – intervening to unblock bottlenecks, move patients, or redeploy staff.

It is well-established that data-driven analytics to measure complex and multidimensional types of flow exist. Retail organisations use footfall counters, heat maps and queue management systems; supply chains use digital twins to simulate warehouse throughput and delays; and traffic flow analytics is common in transport monitoring. The core technology of real-time data capture combined with predictive modelling is similar across industries.

Of course, how these models translate in hospitals – where each patient has individual and often unpredictable clinical needs, legal rights and care pathways – is different. The data is also more fragmented and highly regulated, and the costs of delay are far greater. There are nevertheless multiple types of technologies for hospitals to consider for their specific flow needs:

- Teletracking tools – real-time location systems to track patients, staff, and equipment, giving instant visibility of where people are in the hospital
- AI demand and flow prediction – predict patient arrivals and movement through departments, length of stay and discharge timing using historical and real-time data
- Digital twins – virtual replicas of hospital facilities or care pathways that simulate patient flow, resource use, and process changes, enabling hospitals to safely test 'what-if' scenarios before changing real-world operations
- Capacity management platforms – integrated dashboards that consolidate bed status, staff availability and service bottlenecks, enabling centralised visibility for decision-making
- Queue management and patient journey optimisation – manage patient queues in ED, imaging, and theatres and helps to optimise sequencing based on urgency and resource availability
- Asset tracking and equipment flow management – monitor and predict movement of key medical equipment to avoid delays, such as wheelchairs, IV pumps and ventilators

Case study: Teletracking

In 2020, Maidstone and Tunbridge Wells halved its bed turnaround time using a centrally managed patient tracking solution. When a patient attends the hospital, they are given a digital wristband which tracks their progress throughout the hospital.

The solution takes real-time information from their two hospital sites and gives site managers visibility of all of the beds and their status – whether a patient is in them, whether the bed is empty and ready to be occupied by the next patient or empty and waiting to be cleaned.

On the other side, they have the real time view of the patients who are waiting for those beds, whether they are from the theatres, the emergency departments or planned admissions. This also enables them to deploy predictive models to anticipate downstream demand and adjust resources to match changing circumstances in real time.

This allows them to have real time visibility of 740 beds and over 4,000 patient transfers per month. In the first three months, this reduced the time it takes to transfer a patient with a decision to admit from the ED to an inpatient bed by 26 per cent.[28] It has now been expanded

[28] *Maidstone and Tunbridge Wells NHS Trust* (Teletracking, 2021).

into community health and deployed at Kent Community Health NHS Foundation Trust's four community hospitals.[29]

Case study: Digital twins

Digital twins are a method of digitally recreating a system to provide a static representation of its current state. In recent years, digital twins have become far more sophisticated thanks to the greater sources of real-time data now available, via Electronic Health Records, interconnected medical devices and process mining tools.

Kettering General Hospital designed an AI system to improve the scheduling of beds.[30] As a result, they created a digital twin hospital using five years' worth of historic pseudonymised data from the patient admission system and one to two years of patient flow data. This gave them the ability to visualise a digital twin hospital, showing current occupancy rates and forecasted demand for beds, as well as the ability to test the model on a wide range of patients with different attributes and associated constraints. This code is openly available on GitHub.

The Isle of Wight NHS Trust gained 17 per cent bed capacity for inpatients from their simulation-powered digital twin.[31] It was also identified that these beds did not necessarily have to be within the hospital but instead could be placed in the community or even in the homes of patients with additional support.

Guy's and St Thomas' NHS Trust has also incorporated digital twins into cardiovascular surgical cases, where patient pathways are long and made up of lots of interlinked steps.[32] The Trust wanted to analyse how changing capacity at various points in the patient pathway would impact activity volumes and waiting times for patients.

Using simulation to bring experimental powers to the twin, the hospital was able to join data for different parts of the system to build a full story of the patient flow. This enabled them to understand how things play out in changing conditions – what happens if operating rooms are free but recovery beds are too congested? What happens when these recovery beds may be shared with other specialties?

Case study: AI flow prediction for 'long-stayers'

Of all Gloucestershire Hospitals NHS Foundation Trust admissions, four per cent go on to stay for 21 days or longer – defined as long stayers – which comprise 34 per cent of all bed stays.[33] Using AI they wanted to determine whether a system could be taught to identify people at risk of long staying and whether patient data already collected had enough predictive power to highlight risk.

Trained on 460,000 anonymised records, the model produced an immediate long stayer risk score, which could be available to all reception and clinical staff to help avoid known risk factors.

[29] 'Maidstone and Tunbridge Wells Expand Patient Flow Platform', *Digital Health*, 19 July 2022.
[30] *Improving Hospital Bed Allocation Using AI*.
[31] *How to Support Healthcare Staff and Achieve Operational Excellence*.
[32] *How to Support Healthcare Staff and Achieve Operational Excellence*.
[33] Accelerated Capability Environment, *Using AI to Help Identify Long Stay Patients and Improve Outcomes* (GOV.UK, 2023).

The tool detected 66 per cent of long stayers within the highest risk categories. This has enormous economic, as well as health, benefits, as a single-day reduction in average stay yields £1.7m in savings for Gloucester Hospitals alone.[34]

Following successful completion, the Proof of Concept was integrated with the Trust's electronic health record system via application programming interfaces (APIs). This allowed further testing against Covid-era datasets, anonymously checking patients who had already been discharged to see if the tool could have helped, where it remained highly accurate.[35]

3.1.3 Obstacles to implementing the solutions

The problem with patient flow enhancing technologies is therefore not that there is no supply but that demand is inconsistent. Indeed, despite the fact that the benefits of tech enabled real-time data systems are obvious, it is only used in some hospitals and is not standard across the system.

NHS Supply Chain – the centralised procurement and logistics arm of the NHS – exists to buy, store and deliver a range of products to NHS organisations, creating lower prices through economies of scale. This includes medical consumables (surgical masks, sterile gloves, bandages, etc); medical devices and instruments; capital equipment (MRI, CT and X-ray machines); and laboratory and pathology supplies.

The kind of technology involved in patient flow is specialised and/or bespoke, integrating with each hospital's workflows and systems – in turn creating a bespoke price – and would largely be considered a digital transformation project. Since it would need design, installation, integration and ongoing adaptation, they sit outside the generic catalogue of products provided by NHS Supply Chain.

Procurement for these technologies is therefore devolved to trusts and ICSs. This means hospitals and ICSs are largely empowered to procure their own technologies based on an assessment both of their own need and of the particular supplier they think provides the best price and quality to meet that need.

Much of the technology to improve measurements of demand can be rolled out off the shelf tomorrow if the enabling conditions existed. Many of the problems associated with adopting patient flow demand measurement technologies are the same issues that mire the adoption of any technology in a hospital setting, as routinely outlined in *Re:State's* 'Re:Imagining Health' papers:

- It can be time consuming to procure technologies and often relies on dogged individuals to wade through needlessly long business cases;
- Capital rules obstruct funding; and
- Change management capacity and capability is lacking, meaning clinical buy in is not always there – embedding new ways of working is therefore at best organic and slow and at worst doesn't happen, meaning the benefits are not realised.

High-quality site management is also essential and this is covered in Section 4.2.

[34] Accelerated Capability Environment, *Using AI to Help Identify Long Stay Patients and Improve Outcomes*.
[35] Accelerated Capability Environment, *Using AI to Help Identify Long Stay Patients and Improve Outcomes*.

Business case process

In order to obtain the funding to purchase the technology, trusts will have to go through an internal business case process. This process is needlessly lengthy, duplicative, and often inhibits technologies from being readily adopted.

For real-time monitoring technology that cuts across departments, it is likely that centralised operational or strategy teams would be responsible for the business case process. Finance managers will also be involved in costing developments and calculating their potential income generation.[36]

Interviewees and research suggests that the business case process is time consuming, that the turnover of managers can mean they lose progress on business cases, and that clinicians have varying levels of confidence in their ability to produce effective business cases.[37]

Encouragingly, there has been some progress in recent months. The NHS 10 Year Plan commits to introducing an 'Innovator Passport' in an attempt to streamline adoption of medical technology across the NHS in England.[38] Under this scheme, once one NHS organisation has assessed and approved a medical technology, this approval will be accepted across England's 215 NHS trusts. Trusts can therefore no longer demand separate evaluations for technologies already approved elsewhere.

However, while the innovator passport will relieve the business case process for many technologies, it will still require at least one NHS organisation to go through the laborious and relatively unreformed business case process, meaning the first mover barrier remains high.

It is also not clear whether the innovator passport will include current applications, or whether it is just being applied to future technologies. The proposal does not include any indicative process or intention for already deployed technologies to be rapidly assessed and allocated passport status. There is a risk this could lead to a significant backlog of innovations awaiting passport status despite having being deployed for a number of years, with well-established efficiency, clinical effectiveness, and patient experience evidence. Waiting until 2027 also represents a considerable delay for technologies that are already available and could be deployed immediately.

Capital funding

Even with improved business case processes, this is essentially meaningless if the money to procure these tools is inaccessible. As outlined in *Hospital as service, not a building,* the capital regime, particularly for hospitals, is needlessly complicated and actively obstructs meaningful reform in the health system.[39] There are a number of innovations that could have a significant impact on flow – real-time monitoring, dashboards, or automation – and be procured off the shelf by trusts tomorrow, if the cash were accessible.

In order to spend capital, trusts are often required to obtain approval from DHSC in order to spend their capital allocation, particularly if it is a larger sum.[40] DHSC also often holds back allocations to avoid overspend, meaning that trusts might receive some of their capital

[36] Andrew Judge et al., *Models of Care for the Delivery of Secondary Fracture Prevention after Hip Fracture: A Health Service Cost, Clinical Outcomes and Cost-Effectiveness Study within a Region of England.* (NIHR Journals Library, 2016).
[37] Judge et al., *Models of Care for the Delivery of Secondary Fracture Prevention after Hip Fracture: A Health Service Cost, Clinical Outcomes and Cost-Effectiveness Study within a Region of England.*
[38] '"Innovator Passports" Set to Accelerate Cutting-Edge NHS Care', *GOV.UK*, 2 July 2025.
[39] Beacon et al., *Hospital of the Future: Hospital as a Service, Not a Building*.
[40] Debbie Paterson, *Review of the NHS Capital Financing Regime* (HFMA, 2025).

allocation half-way through the year and so rush to spend it so as to avoid losing the allocation. Interviewees have previously highlighted that trusts with access to their own charities will often opt to fund innovation through their charity rather than through the capitals approval process because it is quicker and easier to obtain the funds.

The NHS 10 Year Plan outlined that the Government intend to introduce multi-year capital budgets, set on a rolling five year basis and radically streamlining the capital approvals process.[41] This includes three approval levels on the very largest nationally significant schemes, reducing the decision time by at least two to three months, while for smaller schemes the reduction will be four to five months.

It also includes more devolved capital approvals processed for Foundation Trusts (FTs). Under this approach, FTs will no longer receive capital allocations at all, but will have the freedom to determine their levels of capital spend each year in accordance with their agreed plans. This is arguably limited by the fact that there are 229 trusts in England but only 154 of those are Foundation Trusts. This still leaves many hospitals having to go through a centralised approval process.

However, without deeper reform, this is likely to be insufficient. If approvals still have to go via national government, it could be easier to plan in the long-term but make little difference to the turnaround time for approvals. It also still means that the total capital approval process for even smaller schemes could be up to two to four months, and bigger schemes, even longer.

Change management

As consistently highlighted in all of the 'Re:Imagining Health' papers, change management, or a lack thereof, continues to undermine the delivery of substantial technological or data driven change in hospitals. It is well established that change management increases the likelihood of successful adoption of new technology in health care.[42]

Change management in hospitals is essential but inconsistently applied and generally insufficient. Hospitals are complex environments with a diverse range of staff, doctors, nurses, admin and IT who may all need to adapt to new systems. Successful transformation requires high staff engagement, in turn enabling faster and more sustainable implementation. It also increases the likelihood that changes last and reduce reworks or failed pilots.

However, change management as a formal function is rarely prioritised in hospitals, and is a different skill set to that of most staff. This is part of a wider underinvestment in management and leadership (as explored in Chapter 6), budget cuts and efficiency pressures, and a lack of career structure for change specialists. Many job adverts for NHS transformation roles are limited term positions, often sit within fixed term programmes or are externally funded initiatives which makes them fragile and temporary roles.[43]

While change management would preferably be held in house consistently, and lends itself to organisation-specific expertise, this capability is also needed across the entire health system. While an individual general practice surgery would not necessarily need a change manager in house, a hospital could plausibly justify an in-house change team based on the volume of patients they provide services for.

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[41] Department of Health and Social Care, *Fit for the Future: 10 Year Health Plan for England* (2025).
[42] Taylor Mitchell, *Change Management: Why It's so Important and so Challenging, in Health Care Environments* (Harvard T.H. Chan School of Public Health, 2021).
[43] *Data Driven Healthcare in 2030: Transformation Requirements of the NHS Digital Technology and Health Informatics Workforce, Full Report* (Health Education England, 2021).

Recommendation 1: In order to improve the implementation of patient flow technologies (and technology in general) the Government should launch an NHS Change Leadership Accelerator (partnered with the new management accreditation in Recommendation 18). This should include mandatory rotations spanning NHS trusts, primary care, Integrated Care Systems (ICSs), and local government. It could also involve key private sector partners such as consultancy services who have well-established change management practices, as well as healthcare technology firms and medical device companies. This would be coordinated by DHSC, with staff allocated to ICSs accordingly.

Recommendation 2: DHSC/NHS England should expedite the use of innovator passports for certain categories of innovations, such as technologies that significantly enhance operational efficiency and increase patient flow, such as teletracking tools, AI demand and flow prediction, digital twins, etc.

Recommendation 3: In order to address the business case challenge, trusts should share their established process and technologies as a blueprint business case for other to quickly use, with pre-approval from NHSE/DHSC for relevant sections of the case, and have an accelerated approval path for high impact investments.

Recommendation 4: Building on existing reforms in the 10 Year Plan, the DHSC/NHS England should accelerate efforts to simplify and speed up capital approvals by introducing statutory or contractual deadlines for approvals with clear maximum decision timelines to avoid unnecessary delays.

3.2 Aligning capacity with demand

The major questions for aligning capacity and demand focus on ensuring the staff who are necessary to make flow happen are available and whether they are operating five days a week, eight hours a day, or 24/7. That doesn't necessarily mean increasing the overall size of the workforce or ensuring every staff member is working seven days. Rather, there should be more targeted approaches to specific roles and specific timings which are proving a significant obstacle to patient flow. Interviews and research for this paper identified these as:

1. Skeleton overnight staff – emergency and acute care and specific bottlenecks, such as the acute medical 'take'

   One of the major limitations raised by interviewees to aligning capacity and demand was the overnight workforce. After 6pm, hospitals operate a skeleton workforce, and it is common to have one registrar dealing with the entire 'take' – that is, how many patients present at A&E. Not enough resources are put into generalist clinical support and therefore flow overnight is often a risk. This is addressed in Section 4.2.

2. Seven-day admission, five-day discharge – the discharge workforce

   A longstanding issue in the NHS is the mismatch between seven-day admissions and five-day discharge practices. Interviewees for this paper universally emphasised that poor flow is specifically related to the multi-disciplinary group of staff involved in enabling discharge. This leads to an artificial surge in demand on Monday mornings, driven not by clinical need, but by the lack of weekend discharges.

   The term 'discharge workforce' is not widely used but arguably should be adopted given the amorphous and varied nature of the teams needed to deliver discharge.

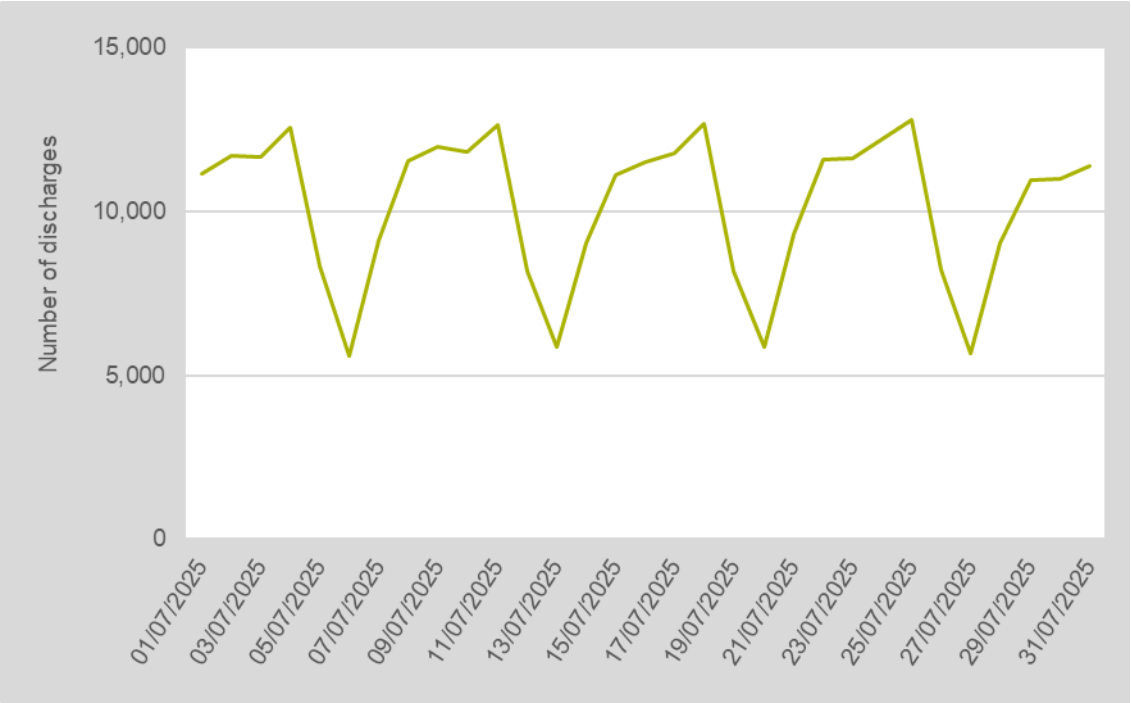
Failing to identify who constitutes this workforce may be undermining the ability to formalise and expand it.

The issues underpinning addressing these two workforce challenges are related, but the workforce required is different. Overnight working, particularly for the improvement of flow, primarily relates to expanding the generalist clinical capabilities in the NHS and redeploying them effectively, and this is analysed extensively in Chapter 5. The following Section is specifically targeted towards the discharge workforce and weekend working.

3.2.1 The problems with weekend discharge

The problems with lack of weekend discharge are long established in the NHS. Despite increased focus on seven-day working and hospital discharge in recent years, weekend discharges from hospital are about 40 per cent lower than weekday discharges.[44] Indeed in July 2025, it was 39 per cent lower than weekday discharges.[45] The Figure below shows discharge activity in July, with troughs occurring periodically on the weekend.

Figure 4: Number of discharges per day in July 2025



Source: NHS England, *Acute Discharge Situation Report: Daily Discharge Sitrep Monthly Data: July 2025* (2025).

These delays at the back door of the hospital create a litany of patient flow problems. It creates an artificial Monday morning rush: by Monday morning, there is a backlog of patients waiting to be discharged which creates intense demand all at once, rather than spread evenly, leading to overcrowded EDs and delays to planned care. This surge is often not cleared in a day, and bed turnover rates often only recover by mid to late week which means some wards spend the whole week in recovery mode before the cycle repeats.

[44] *Rapid Improvement Guide to Improving Weekend Discharges* (NHS England, 2021).
[45] NHS England, *Acute Discharge Situation Report: Daily Discharge Sitrep Monthly Data: July 2025* (2025).

It also creates bed blocking where patients are medically fit for discharge but still occupy hospital beds, preventing admission of new patients from ED or elective lists. This can result in significant knock-on operational inefficiencies. Staff workload spikes affect quality of care and morale, scheduled clinical activities are often disrupted to free capacity, ambulances could be delayed and the hospital can incur higher costs from overtime or cancelled elective activity.

3.2.2 Building a 24/7 workforce for patient flow

A key factor in suboptimal weekend discharges is capacity. In a hospital, there are typically a wide range of services that are limited or unavailable on weekends, as highlighted by multiple interviewees for this paper. These include:

- Diagnostics and imaging (X-rays, CT scans, MRI and ultrasound) – routine radiology is often limited to emergency cases only
- Laboratory tests (bloods, pathology and microbiology) – emergency tests run but routine tests may not be processed or reported until the next weekday
- Discharge and flow support – discharge coordinators, pharmacy, social workers or care package assessors, and community and social care teams often do not work over the weekend
- Elective and specialist services – planned surgeries, outpatient clinics, and elective procedures are generally paused from Friday afternoon until Monday morning
- Consultant coverage – fewer consultants are available on-site, limiting senior decision-making for discharges, treatment changes or diagnostics

The arguments for weekend working are multidimensional: there are lower standards of care on the weekend due to fewer staff,[46] people should be able to have operations or appointments on the weekend to reduce the elective backlog,[47] and discharge slows down significantly on the weekends.[48] Addressing each of these would have slightly different workforce implications.

For the specific objective of patient flow, discharge on the weekends is the most consequential. Interviewees emphasised that it means that hospitals are usually quiet by Friday, disproportionately busy by Monday and then have to correct through the week.[49]

This also means there are patients who are medically fit for discharge who often remain in hospital over the weekend and that there is reduced bed availability, as well as higher costs, resource inefficiency and worse outcomes for patients. This contributes to direct excess costs of at least £1.7 billion.[50]

Prolonged hospital stays, especially for patients who are older or living with frailty, also increase the risk of deconditioning and, as discussed above, hospital-acquired infections.

[46] Kate Honeyford et al., 'The Weekend Effect: Does Hospital Mortality Differ by Day of the Week? A Systematic Review and Meta-Analysis', *BMC Health Services Research* 18, no. 1 (2018): 870, https://doi.org/10.1186/s12913-018-3688-3.
[47] 'Over Two Million Extra NHS Appointments Delivered Early as Trusts Handed £40 Million to Go Further and Faster', *GOV.UK*, 16 February 2025.
[48] NHS England, *Acute Discharge Situation Report: Daily Discharge Sitrep Monthly Data: July 2025*.
[49] Ian G. Stiell et al., 'Decreased Patient Discharges on Weekends: Part 2—What Do the Ward Nurses Tell Us?', *Canadian Journal of Emergency Medicine* 26, no. 9 (2024): 633–41, https://doi.org/10.1007/s43678-024-00697-1.
[50] Maguire, *The Hidden Problems behind Delayed Discharges and Their Costs*.

Older adults can lose five to 10 per cent of their muscle strength within one week of immobility.[51]

The Seven-Day Services Initiative under the 2010-15 Coalition Government

The Seven-Day Services Initiative was a flagship policy introduced by the Coalition Government which aimed to ensure that patients received the same standard of care across all seven days of the week. The key objective of the initiative was to reduce the "weekend effect" where evidence suggested worse outcomes for patients admitted to hospitals on the weekends.[52]

While the policy applied in theory to consultants, junior doctors, nurses, allied health professionals, pharmacy, diagnostics, and many other staff groups, in practice the most visible and contested element of the policy was its emphasis on changing working patterns for consultants, culminating in a major contractual dispute between the Government and the British Medical Association (BMA), resulting in strikes in 2016.

The focus on consultants was the product of them being viewed as the bottleneck for key decisions, including diagnoses, treatment and discharge approvals, as well as the Government leaning on the argument that patients admitted at the weekend had higher mortality due to reduced senior clinical presence.[53] Consultants had an 'opt out' in their contract from 2003, which meant they could refuse non-emergency weekend work unless specifically agreed with their employer.[54]

Other staff groups, including nurses or allied health professionals, received significantly less funding, attention or contractual reform. Discharge pathways, rehab services and community care would have still remained largely Monday to Friday operations, ultimately limiting the potential impact of the initiative.

In 2016, negotiations broke down with the BMA and no contractual changes were introduced. Some trusts piloted extended services, such as weekend ward rounds or diagnostic access, but the original vision of a comprehensive seven-day NHS has not been realised.

3.2.3 Obstacles to delivering the 24/7 workforce

It is implausible that anyone would design a hospital workforce oriented around five-day working if the NHS was created today. Efficient patient flow depends on a 24/7 workforce, and hospital productivity depends in large part on patient flow. The clinical effectiveness of the overall system relies on overall hospital efficiency – it is foundational to the future hospital.

The actual process for discharge itself is outlined in Chapter 6, but the capacity requirements are covered below. They are aimed at ensuring the back door of the hospital is not closed at the weekends. The staff needed to achieve this could include: discharge coordinators, pharmacists, occupational therapists, social workers, community and social care teams, as well as clinical decision makers, which could include nurses in addition to doctors.

As outlined above, the issue of weekend working has perplexed policymakers for decades because it combines both extensive political and financial capital, as the Seven Day Services

[51] Mary M. Brennan, 'Movement Is Muscle in Hospitalized Adults', *Geriatric Nursing* 55 (January 2024): 373–75, https://doi.org/10.1016/j.gerinurse.2023.11.015.
[52] *Seven-Day Services: The First 100 Days of the New Government* (The King's Fund, 2015).
[53] *Research into 'the Weekend Effect' on Patient Outcomes and Mortality* (Department of Health and Social Care, 2015).
[54] *Terms and Conditions - Consultants (England) 2003* (NHS Employers, n.d.).

Initiative demonstrates. It costs money, it tends to provoke significant workforce and vested interest resistance, it may require fundamentally rethinking clinical decision-making in a hospital, and many of the staff members involved in discharge are in fact not employed by hospitals.

The first and most significant consideration is cost: expanding the discharge workforce effectively means more people and this costs money. It's important to note that while faster discharges may mean less bed days, reductions in patient occupancy do not necessarily mean reduction in cost. This could be because of supply induced demand – where spare capacity in the health system increases costs because of the scale of unmet demand which then fills the spare capacity. Plus, unless wards are closed, financial overheads remain largely the same.

Financially, a hospital would expect productivity gains from doing more with the inputs, even accounting for increased input volume, but would not expect direct cashable savings. Some might argue that increasing the workforce would pay for itself through efficiency and flow benefits – and it certainly would allow for less avoidable bed days. But as above, unless the reduction in bed days means entire wards are redundant, then it may not reduce overheads substantially.

Second, this would involve changing work practices significantly for a large group of people. Workforce resistance could undermine the progress of this if not managed carefully. While there may be much to learn from other industries in this regard – retail, for example, shifted to weekend working in the 1990s – the vested interests in the NHS are of an unusually powerful nature. The BMA has demonstrated it is unafraid to disrupt clinical services through repeated strikes.

However, the diverse range of roles involved in discharge may be a strength as well as a weakness in this regard. It is a weakness in the sense that it may require negotiation with more trade unions or professional associations, but a strength in that these bodies tend to be less militant than the BMA. The wide range of roles in discharge tend to be represented by generic trade unions, as well as having Royal Colleges for advocacy purposes. This could change the nature of negotiation significantly.

It may also be fair to say the scale of workforce resistance may be overstated. Interviewees stated that many staff are willing to work weekends, it is that in the current structure, it is extremely unfavourable. For example, when not properly planned, it can mean a six-day working week, rather than five days that includes weekend days.

There are also models to learn from that have been particularly successful. One interviewee raised the London Fire Brigade, who work a 2-2-4 pattern with two day shifts on, followed by two night shifts, then four days off. This is rolling so some weeks fire fighters would get all weekend off, some none, and some one day. Staff in the London Ambulance Service have now almost all chosen this pattern themselves voluntarily because it is seen as better for work/life balance, and works better for the employer, as it makes weekends much easier to staff.

Third, there is also a risk that certain parts of the workforce could be expanded – at significant cost – but other parts of the discharge workforce would not be, and this would leave the bottleneck unresolved. This chiefly relates to local government. Many members of the discharge workforce are not employed by the hospital trust but by the local authority, and so the contracting requirements will be different.

This can arguably be overcome by allocating money to the local authority in order to build out the workforce. However there is a risk that a discharge coordinator employed inside a local authority, for example, will be useless if the services they will be helping to coordinate do not have coordinators operating on the weekend, such as social care.

As part of the workforce review, it is essential to consider not only hospital staffing but also the community-based teams that need to be available seven days a week, and how the associated costs and benefits will be shared across the NHS and local government.

The main financial mechanism designed to reduce delayed discharge and strengthen integration between health and social care is the Better Care Fund. This fund could serve as the primary vehicle for expanding the discharge workforce within local authorities (e.g. housing officers).

Given that the cost of additional discharge-related roles in local government is relatively modest compared to the higher staffing costs faced by hospitals, these roles could reasonably be funded through the Better Care Fund.

Lastly, it may also require change in process in regards to decision-making at the weekend which remains a bottleneck in finalising the discharge process. This does not need to be a consultant all the time – for example one interviewee suggested receiving an acknowledgement from one consultant that another can make a decision if certain vital signs are met.

It would be important to consider alternative forms of clinical decision-making in the discharge process and how this can be enabled in the most cost-effective and least disruptive way. Indeed, NHS England released formal guidance for 'criteria-led discharge' – sometimes described as nurse-led discharge – but it is not clear how far this has been scaled across the health system.[55]

Recommendation 5: NHS England/DHSC should commission a rapid evaluation of the cost-effectiveness of investing in the discharge and community workforce. This should compare the marginal cost of staffing expansion to the cost of delayed discharges, hospital length of stay and blocked elective activity.

Recommendation 6: The imminent workforce strategy following the 10 Year Health Plan should comprehensively assess the necessary capacity for the multidisciplinary roles critical to discharge – including occupational therapists, pharmacists, and discharge coordinators – and determine what is needed to support safe, effective seven-day discharge working. This should be swiftly followed by an update to national contracts and commissioning guidance to enable seven-day working for these roles and training pathways to support recruitment and retention. The workforce should then be remodelled to support these roles. The recommendation for clinicians is covered in Recommendations 10 to 17.

Recommendation 7: A portion of the Better Care Fund should be allocated specifically to the seven-day discharge functions by central government. ICBs should coordinate a targeted, funded strategy to grow the community discharge workforce including care package assessors, reablement teams, and housing officers. This should include dedicated recruitment pipelines for local government employed staff working at the hospital interface, funding for weekend working across adult social care and shared accountability for flow across ICS and local authority boundaries.

[55] *Improvement Guidance for Writing a Criteria-Led Discharge Policy: Version 2* (NHS England, 2021).

Recommendation 8: The Government, with support from the Royal Colleges, should commit to rolling out nurse-led discharge where certain pre agreed criteria are met. Implementation should begin with specific high volume pathways where criteria can be clearly defined. Once proven at individual pathway level, the approach should be scaled more widely across the NHS.

Recommendation 9: The Government should commit to rolling out a seven-day discharge workforce in at least five ICSs by the end of this Parliament. These ICSs should serve as national demonstrator sites, testing the workforce models, contractual changes, and partnership mechanisms needed to support reliable, 12 hours-a-day, seven-day discharge.

4. Operational inefficiency and internal bottlenecks

Internal bottlenecks are common in hospitals. A bottleneck is the point in a process where the flow of work is limited or slows down, reducing the overall efficiency and output of the system. It typically occurs when one step in a workflow has a lower capacity than the steps before or after it, creating a backlog or delay. These can occur due to limitations in capacity, decision-making processes, or IT systems.

Common bottleneck points in hospitals could include ambulances waiting to transfer their patient into the hospital, patients waiting in A&E to be admitted inpatient once the decision to admit them has been made, patients waiting to have necessary diagnostic tests, and discharge delays.

Rather than identifying the most common bottlenecks, this chapter will identify the most common themes underpinning internal bottlenecks in hospitals and how to address these problems. The most significant themes identified via research and interviews were insufficient clinical generalism and inadequate management.

There are also a number of other causes of bottlenecks raised by interviewees – namely outdated technology and estates. *Hospital as a service, not a building* largely addressed the core technology problems that undermine patient flow, and fixing substandard estates is a matter of capital investment, which the Government has allocated as it sees fit. There is also already a significant body of literature focusing on both of these areas.[56]

4.1 Insufficient clinical generalism

Many experts have commented on the problems arising from clinical over specialisation in hospitals and its increasingly poor fit for the clinical demand faced today.[57] As patients become more complex, presenting with a range of undifferentiated symptoms related to several different conditions, having doctors responsible for one organ group creates substantial bottlenecks in hospitals.

The vanguard of clinical generalism in the NHS is often thought to be general practice and primary care. However, generalism also translates in a secondary care setting and includes a different cohort of expert generalists. This includes those practising in acute medicine, general medicine, geriatric medicine and intensive care, and much of the nursing workforce and other clinical staff who manage these patients.[58]

Indeed while specialisation is extremely important in medical practice, given the demographic context, it is unlikely hospitals would have such a hyper-specialised model if designed today.

[56] *Capital Allocations: Process and Constraints* (NHS Providers, 2023); Sam Freedman and Rachel Wolf, *The NHS Productivity Puzzle: Why Has Hospital Activity Not Increased in Line with Funding and Staffing?* (Institute for Government, 2023).
[57] *The Future Doctor Programme: A Co-Created Vision for the Future Clinical Team* (Health Education England, 2020); Future Hospital Commission, *Future Hospital: Caring for Medical Patients* (Royal College of Physicians, 2013).
[58] Future Hospital Commission, *Future Hospital: Caring for Medical Patients*.

This is because changing clinical demand – more patients with more conditions that are more complex – means that patients will often need attention from multiple specialists.

Even in the 'Hospital of the Future' model whereby only the most high-risk, complex care is in the hospital – which would likely involve more highly specialised activity – the majority of the complexity will arise from multimorbidity rather than single issues.

Changing how doctors work and train is complicated and is oftentimes provocative to the sector. However, in any other sector, if it became clear that the workforce lacked the necessary skills required to meet the industry's future challenges, failing to adapt would be inconceivable.

4.1.1 The problems with specialisation

4.1.1.1 Shifting demographic demand

The nature of clinical demand in the health system is already multidimensional, cutting across traditional specialist boundaries, and this is projected to continue over coming years.

This comes down to the existence of chronic conditions (a long-term health problem that cannot be cured, but can be controlled), multimorbidity (the presence of two or more chronic conditions), and ageing. Classic examples of chronic conditions include diabetes, high blood pressure, Chronic Obstructive Pulmonary Disease (COPD), atrial fibrillation, coronary artery disease, arthritis, and osteoporosis.

Chronic conditions and multimorbidity dominate health service use and expenditure. When comprehensive data on long-term conditions and multimorbidity was last collected a decade ago, it was found that those living with long-term conditions account for 50 per cent of GP appointments, 64 per cent of outpatient appointments and 70 per cent of inpatient bed days.[59] These patients are the most likely to enter hospital care should they need specialist attention in a severe acute episode. 70 per cent of total health and care spend in England goes towards this group.[60]

In mid-2020, there were 1.7 million people aged 85 years and over, making up 2.5 per cent of the UK population.[61] By mid-2045, this is projected to have nearly doubled to 3.1 million, representing 4.3 per cent of the population.[62] Multimorbidity is the norm in this age group. Some projections suggest the prevalence of four or more chronic conditions among people aged 75-84 years old is set to increase by 130 per cent by 2035.[63]

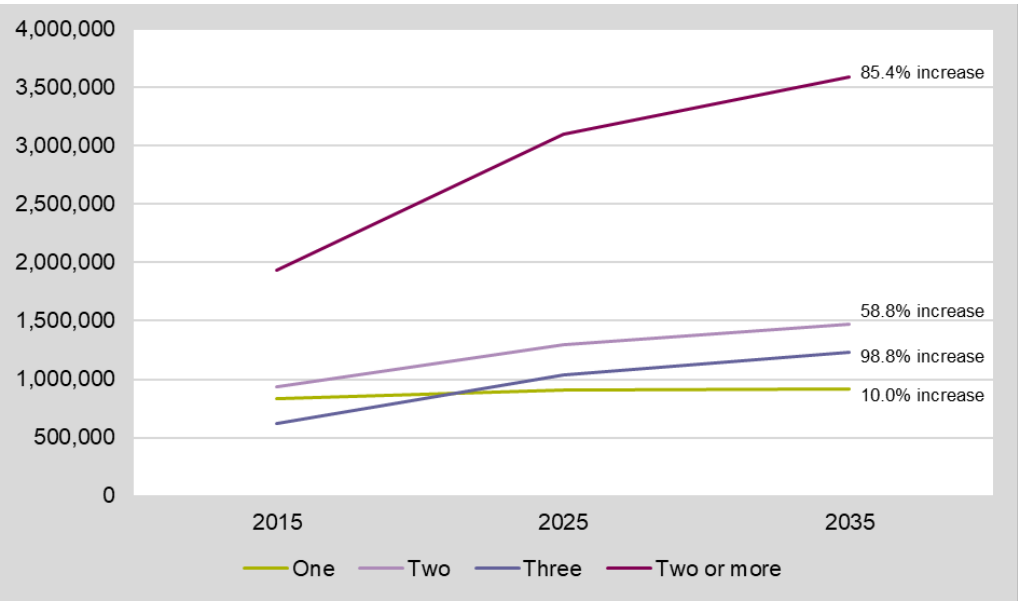
To illustrate what this could mean in reality: a patient with Chronic Obstructive Pulmonary Disease and diabetes, aged 80, may need to see a respiratory consultant, an endocrinologist, and a geriatrician, none of whom may technically have the authorisation for discharge if they are on a general ward. This fragmentation often leads to siloed care. The result was powerfully captured in *The Guardian*:

> "His three tubes, a nasogastric, a drain, and a urinary catheter are managed by three different surgeons. The infectious diseases physician is running the antibiotics. The

[59] Department of Health, *Long Term Conditions Compendium of Information. Third Edition* (2012).
[60] Department of Health, *Long Term Conditions Compendium of Information. Third Edition*.
[61] Office for National Statistics, 'National Population Projections: 2020-Based Interim', Office for National Statistics, January 2022.
[62] Office for National Statistics, 'National Population Projections: 2020-Based Interim'.
[63] Andrew Kingston et al., 'Projections of Multi-Morbidity in the Older Population in England to 2035: Estimates from the Population Ageing and Care Simulation (PACSim) Model', *Age and Ageing* 47, no. 3 (2018).

nephrologist is juggling the fluid balance. The rehab physician says it's not yet time for rehab. Six specialists visit the man and yet he is looking for a doctor."[64]

Figure 5: Prevalence of multimorbidity among 75-84 year olds



Source: Kingston et al., 'Projections of multi-morbidity in the older population in England to 2035', 2018.

4.1.1.2 Decision-making bottlenecks

Since patients increasingly have multiple illnesses that cross over several different organ groups and therefore hospital specialists, the nature of care changes extensively. Each of these factors creates bottlenecks at every stage of the patient's journey throughout the hospital:

- **More coordination is needed within the hospital and with other teams** – patients with multiple long-term conditions will be seeing a range of other specialists who need to collaborate to ensure the medical intervention is appropriate and safe.
- **More coordination is needed externally with primary, social and community care** – many multimorbid and frail patients require specialist support within the home and community, such as remote monitoring, occupational therapy or social care.
- **Communication and shared decision making with the patient needs to be substantially different** – some patients will not be suitable for further treatment, particularly frail patients where interventions are typically less effective and complications more likely.
- **A different approach is needed to a patient's prescription and how the prescription decision is made** – one specialist cannot prescribe a drug without knowing how it could potentially interact with another drug prescribed by another specialist (which the patient is already on).

[64] Ranjana Srivstava, 'The Spread of Super-Specialisation Is an Alarming Problem of Modern Medicine', *The Guardian*, 18 February 2020.

- **A different approach is needed for a patient's initial assessment and treatment escalation planning** – it is often difficult to give conclusive advice without engaging with other clinicians who specialise in, for example, geriatrics.

The benefits of specialism in medical practice are extensive – it can produce better medical outcomes for patients with one specific or acute problem and improves the UK's international competitiveness by pushing the frontiers of medical science.

But generalism, even in a specialist acute setting, adds significant value both clinically and operationally. As outlined below, generalist clinical models have demonstrated several benefits in other countries, including reduced hospital length of stay, lower healthcare costs, improved patient outcomes and satisfaction, enhanced efficiency in patient care management and better coordination of care during hospital admissions.[65]

There is also evidence that hyper-specialism creates diseconomies of scale – the narrower the specialisation of each medic, the more medics you need to cover all types of patient conditions even if each patient only has one condition.[66]

4.1.2 Diagnosing the problems causing insufficient generalism

Understanding the problems causing insufficient generalism in secondary care, and what drives these problems, is not straightforward. It is a complicated combination of training, recruitment, retention and the specific specialisms on offer.

4.1.2.1 Training

Much of the evidence on training would not immediately indicate a problem with training for more generalist roles in secondary care.

For example, emergency medicine has been the fastest growing specialism over the last decade: it has grown 129 per cent since 2010. However, this is an increase from a considerably smaller baseline compared to the number of consultants in other specialties.[67] This may also mean that are more generalists have gravitated to A&E, leaving fewer generalist doctors in hospital wards.

Figure 6: Changes in hospital medical staff since 2010, by specialty

Specialty	2010	2018	2024	Change 2010-24
Emergency medicine	4,835	6,624	11,055	+ 129 per cent
Paediatrics	7,187	8,220	10,728	+ 49 per cent
Obstetrics and gynaecology	5,208	5,894	7,737	+ 49 per cent
Anaesthetics	11,135	13,683	17,642	+ 58 per cent

Source: Rachael Harker et al., *NHS Key Statistics: England* (House of Commons Library, 2025).

[65] Elizabeth Estabrook et al., 'Why the NHS Needs Adult Generalists: A Call for Single Certification in General Internal Medicine', *Future Healthcare Journal* 11, no. 4 (2024): 100197, https://doi.org/10.1016/j.fhj.2024.100197.
[66] I J P Loefler, 'Are Generalists Still Needed in a Specialised World? The Renaissance of General Surgery Survival of the General Physician', *BMJ* 320, no. 7232 (2000): 436–40, https://doi.org/10.1136/bmj.320.7232.436.
[67] Rachael Harker et al., *NHS Key Statistics: England* (House of Commons Library, 2025).

There are also some interesting patterns among education and training for generalists. Currently, the training and education process for doctors includes:[68]

- Undergraduate medical degree (five to six years)
- Foundation programme (two years)
    - Provisional registration with the General Medical Council
    - Rotations across specialties
- Core training or specialty training (three to eight years)
    - This can include broad based training before specialising (core training) followed by focused specialty training.
    - Alternatively, some specialties, such as general practice, paediatrics or neurosurgery, provide one continuous programme from entry to consultancy level.

The competition ratios (how many applicants there are per available post for core and specialty training) for many of the generalist routes are at the lower end of the normal range, but overall relatively standard in line with other specialisms. The fill rate (the percentage of applicants offered the programme who accept it) for most generalist specialties is similarly at the lower end of normal, but not especially unusual.

The competition ratio is a useful but generally flawed measurement for assessing the overall landscape of training places because there are some well evidenced factors that skew the ratio. Applicants increasingly apply to multiple specialties to increase their chance of being accepted, which skews the ratio. This means high competition ratios can co-exist with low fill rates. For example, acute internal medicine ranks mid-level in competition among specialties, but despite reasonable demand, the fill rate was suboptimal, at 63.77 per cent.

[68] *Medical Training Pathway* (British Medical Association, 2024).

Figure 7: Competition ratios and fill rates for generalist and speciality training programmes, 2024

	Speciality	Competition ratio	Fill rate (per cent)
Generalist specialties	Internal Medicine Training CT1	3.69	100
	ACCS Emergency Medicine CT1/ST1	7.57	96.46
	Emergency Medicine (ACCS) ST3	8.68	10
	Intensive Care Medicine ST3	2.34	84.71
	Acute Internal Medicine ST4	4.32	63.77
	Emergency Medicine ST4	1.31	59.3
	Geriatric Medicine ST4	1.75	73.28
	General (Internal) Medicine ST4	4.03	22.22
Specialist specialties	Cardiothoracic Surgery ST1	45.33	37.5
	Neurosurgery ST1	19.67	100
	Clinical Oncology ST3	1.78	70.09
	Clinical Radiology ST3	6.00	94.12
	General Surgery ST3	3.76	98.69
	Anaesthetics ST4	1.64	99.7

Key:
CT1/ST1 is the first specialty training year following foundation years
ST3 is the third specialty training year and/or the first year of Higher Specialty Training
ST4 is the fourth specialty training year, and/or the first year of Higher Specialty Training

Source: Workforce, training and education: Medical Hub, *Competition Ratios* (NHS England, 2024).

Most concerning is the competition ratio and fill rate for ST3/4 onwards as these are when people tend to specialise. It is generally a stronger indication of disinterest with the specialism if they have lower fill rates at ST4 level given that this is three years into specialty training and, following more experience of the specialty, they decide to no longer pursue it.

Figure 7 shows that, for generalist specialisms, both competition ratios and fill rates tend to be lower, and Emergency Medicine ST4 and Geriatric Medicine ST4 have notably low competition ratios. Looking at competition ratios for these programmes in previous years, these figures are reflective of a long-term trend, indicating insufficient interest in these specialisms.[69]

[69] Workforce, training and education: Medical Hub, *Competition Ratios* (NHS England, 2024).

On the other hand, Emergency Medicine (ACCS) ST3 and General (Internal) Medicine ST4 have low fill rates in 2024, but, based on previous years, these rates seem to be outliers.[70] It is therefore not clear there is an interest problem for these roles.

These lower-end-of-normal competition ratios and fill rates may indicate generalist specialisms are less popular and attractive than some specialist specialisms, but does not explain the full extent of insufficient generalism in hospitals.

4.1.2.2 Recruitment and retention

Generalist positions – including general practice, acute medicine and internal medicine – are facing recruitment and retention difficulties, difficulties filling roles for those who have begun or completed their specialist training, and difficulties keeping these roles filled.[71] NHS workforce statistics includes turnover rates, but fails to divide this information up by speciality. Consequently, there is a data gap. However, a 2023 study of retention rates by speciality from 2009-14 found lower retention rates in general acute medicine, primary care and psychiatry.[72]

Generalist specialties are commonly overstretched, negatively impacting enjoyment and increasing stress, contributing to recruitment and retention difficulties, as well as deterring future doctors from pursuing these specialties.[73] Further corroborating this, the highest doctor burnout rates are observed in those who specialise in emergency medicine, surgery, and general practice.[74]

Despite patchy data and research, there are strong indications that retention in generalist specialties is a significant issue.

4.1.2.3 Fragmented processes

It is clear that recruitment and training are not the only drivers behind the lack of generalism in hospital settings. It could very plausibly be the case that on paper, enough generalist hospital doctors exist in the system. The problem could in fact be that the way generalists are deployed in hospitals is sub-optimal, which gives the illusion that there are too few generalists.

Indeed operationally, the responsibilities between specialists and generalists are more blurred. In many hospitals the criteria for the involvement of specialty inpatient care are poorly defined. According to interviewees, inpatient care is often a patchwork of junior rotating staff, acute medicine teams, specialist consultants and geriatric or paediatric leads, but no one fulfils the broader generalist role within the wards.

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[70] Workforce, training and education: Medical Hub, *Fill Rates* (NHS England, 2024).
[71] Adam T. Misky et al., 'Understanding Concepts of Generalism and Specialism amongst Medical Students at a Research-Intensive London Medical School', *BMC Medical Education* 22, no. 1 (2022): 291, https://doi.org/10.1186/s12909-022-03355-1.
[72] Giuseppe Moscelli et al., 'Trends and Determinants of Clinical Staff Retention in the English NHS: A Double Retrospective Cohort Study', *BMJ Open* 14, no. 4 (2024): e078072, https://doi.org/10.1136/bmjopen-2023-078072.
[73] Adam T. Misky et al., 'Understanding Concepts of Generalism and Specialism amongst Medical Students at a Research-Intensive London Medical School', *BMC Medical Education* 22, no. 1 (2022), https://doi.org/10.1186/s12909-022-03355-1.
[74] Statista, *Share of Doctors at High Risk for Burnout in the United Kingdom in 2023, by Specialty Group* (2025).

Based on information collected from multiple interviews and subsequently verified with doctors and managers currently working in hospitals, the process for identifying clinical responsibility is ambiguous .

The process will vary depending on the hospital, but the criteria for determining which inpatients should be managed by which specialists have only recently been clarified. Recent Get It Right First Time guidance described the need for acute trusts to have agreed patient dispositions, for example, back pain to be sent to orthopaedics. But when a patient with complex, intersecting medical issues presents at A&E, the acute medicine consultant must choose among several different specialties.

Often the specialist team is chosen based on what is felt to be the most pressing medical concern. This then leads to multiple other referrals to other specialties to support aspects of the patient's care that are outside the scope of one specialist, which can create disjointed care.

Interviewees impressed that trusts will have shared care protocols, but they will vary between trusts, and can be problematic operationally if one team feels they have to 'chase' input from another team. While shared care exists, there is still variation in behaviour and accountability between and within hospitals, and they "need more resources dedicated to specialists interfacing with their other non-specialist colleagues" (this is further explored in Section 5.2).

Further complicating the process, patients are often assigned any available medical bed and cared for by the specialty that manages the ward, rather than a specialty based on patient need. Most hospitals have a specialist ward-based system and some general medical wards. The bed flow team will do their utmost to get patients to the right ward not least because the whole multidisciplinary team is likely to be more experienced with that specific need. However, some patients do not end up in the most appropriate ward due to capacity constraints.

They will then be monitored by that ward-based team until transferred to the correct ward or discharged home. The appropriate specialist will review patients on 'outlying' wards and provide advice, but will not takeover care until they are transferred to the base ward. The patient remains at risk of being overlooked by the specialty if they are placed in a bed other than that designated to the specialty, and in some hospitals medical specialties could control the number of inpatients for whom they have ongoing responsibilities by restricting this to patients contained within a defined bed base.

The hospitalist model

The hospitalist model is practiced in countries including the USA, Australia and many parts of Europe. The hospitalist specialises in the comprehensive care of hospitalised patients, including diagnosing and managing a wide range of acute conditions, coordinating treatment with specialists and facilitating communication between multidisciplinary teams.

Patients who are seen by a hospitalist following referrals from the ED are cared for by a hospitalist for the entirety of their admission. As the hospitalist's primary focus is acute general internal medicine conditions such as sepsis, diabetes and acute kidney injury, there is less reliance on referrals for additional input.

This model has demonstrated several benefits, including reduced hospital length of stay, lower healthcare costs, improved patient outcomes and satisfaction, enhanced efficiency in patient care management and better coordination of care during hospital admissions.[75]

[75] Estabrook et al., 'Why the NHS Needs Adult Generalists'.

In regards to quality of care, a systematic review – analysing 65 reviewed articles – demonstrated that hospitalists delivered a higher quality of care to their patients compared to traditional inpatient physicians. Superior outcomes were demonstrated across all care settings, regardless of study design, hospital type, patient eligibility, or physician practice structures.[76] An additional study also found that results from multiple related measures for three conditions – acute myocardial infarction, congestive heart failure, and pneumonia – across 3,619 hospitals between 2005 and 2006, found higher composite quality of care scores for hospitalist-run hospitals.[77]

In regards to length of stay, a cohort study reviewing 6,511 patients in the first year of introduction in 1997 to 1999, found that average adjusted length of stay was 0.29 days shorter in year one for patients cared for by hospitalists versus non-hospitalists, and in year two, average adjusted length of stay was 0.49 day shorter for patients cared for by hospitalists. Average adjusted costs were not significantly reduced for hospitalists compared with non-hospitalists in year one but were reduced by $782 in year two.[78]

Similarly, another study based on data from 45 hospitals across the US, comparing 76,926 patients, found that length of stay shortened by 12 per cent, or nearly half a day. Even though the differences in the length of stay may seem small, when multiplied by the thousands of admissions that hospitalists see each year, the effects can be large. A half day shorter length-of-stay per case multiplied by 5,000 cases annually will save 2,000 bed days, in turn enabling 500 more patients to be cared for each year without increasing the number of hospital beds.[79]

This specialty, upon introduction, was also the fastest growing medical specialty in history and is now the dominant specialty in the US.[80]

4.1.3 Moving to a new model

Transitioning to a new model will require rethinking how both new and existing generalists – alongside specialists – contribute to patient flow. Overall, the empirical evidence to support a strengthened role for doctors in ward management and patient flow is compelling. But there is a disconnect between what the evidence suggests works and what is happening on the ground.

Therefore, if patient flow is to be re-prioritised, the deployment of doctors within the hospital needs a renewed focus and steer from the centre. An entirely new approach is needed both to the incoming workforce and the current workforce. In regards to the former, this should be focused on training programmes, recruitment, and retention, and for the latter, renewed approaches to workforce deployment. The evidence clearly supports such reform.

Acute Medical Units (AMUs) – a short-stay emergency hospital ward for patients who have presented to hospital with, or developed, medical emergencies, with patients typically

[76] Heather L White and Richard H Glazier, 'Do Hospitalist Physicians Improve the Quality of Inpatient Care Delivery? A Systematic Review of Process, Efficiency and Outcome Measures', *BMC Medicine* 9, no. 1 (2011): 58, https://doi.org/10.1186/1741-7015-9-58.
[77] Lenny López et al., 'Hospitalists and the Quality of Care in Hospitals', *Archives of Internal Medicine* 169, no. 15 (2009), https://doi.org/10.1001/archinternmed.2009.222.
[78] David Meltzer et al., 'Effects of Physician Experience on Costs and Outcomes on an Academic General Medicine Service: Results of a Trial of Hospitalists', *Annals of Internal Medicine* 137, no. 11 (2002): 866–74, https://doi.org/10.7326/0003-4819-137-11-200212030-00007.
[79] Lauren Hammit, *Benefits of Hospitalist Care Confirmed in New Study* (University of California San Francisco, 2007).
[80] Louella Vaughan, *What Can We Learn from the US 'hospitalist' Model?* (Nuffield Trust, 2016).

discharged or admitted to a longer-term wards in one to three days – demonstrate that continuous consultant cover offers significant benefits.[81]

In AMUs, continuous cover is defined by the Royal College of Physicians as entailing acute medical care consultants being on call for more than one day at a time, having no other routine clinical duties other than AMU cover, carrying out two or more ward rounds per day, and being present in the AMU for more than four hours a day over seven days.[82] With this level of care, AMUs tend to see lower adjusted case fatality rates, lower excess weekend mortality, and lower readmission rates within 28 days.[83]

For general wards, some hospitals, such as the Royal Liverpool University Hospital, experimented with increasing the frequency of ward rounds.[84] This created demonstrable benefits for ward management: the only change was that of daily, rather than twice weekly, consultant involvement in patient management and decision making. Compared to the other two wards, the average length of stay significantly reduced while the number of discharges significantly increased.

NICE – the public body that provides guidance for the NHS – has long recommended daily consultant reviews in general medical wards, including on weekends and bank holidays, based on the strong evidence that it improves clinical outcomes, particularly reducing average length of stay.[85] Making this shift in their gastroenterology ward, the Royal Bolton Hospital NHS Foundation Trust saw average length of stay reduce from 11.5 to 8.9 days, mortality reduce from 11.2 per cent to 6 per cent, and the number of patients treated in 12 months increase 37 per cent.[86]

4.1.3.1 Incoming workforce

There is no formal hospital generalist specialty. Doctors trained in General Internal Medicine typically also have a primary specialty. Therefore, while many specialists do provide generalist care, they often see it as secondary to their main role. This means that the staff to fulfil the above ward management function do not always obviously exist within the hospital or are otherwise deployed.

Geriatricians and acute physicians are, in effect, the NHS's unofficial generalists. However this is both ineffective and unsustainable: geriatrics specialise in the elderly, and acute medicine often handles only the first 24 to 72 hours before patients are handed to specialist teams.

In 2009, the General Medical Council formally recognised acute internal medicine as a specialty of adult medicine.[87] This could be repeated for a hospitalist model. However, as outlined below, the actual deployment of this role could require substantial investment. But

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[81] *Patients Benefit from Continued Consultant Cover* (Royal College of Physicians, 2015).
[82] *Patients Benefit from Continued Consultant Cover*.
[83] *Patients Benefit from Continued Consultant Cover*.
[84] Aftab Ahmad et al., 'The Impact of Twice-Daily Consultant Ward Rounds on the Length of Stay in Two General Medical Wards', *Clinical Medicine (London, England)* 11, no. 6 (2011): 524–28, https://doi.org/10.7861/clinmedicine.11-6-524.
[85] *Chapter 26 Frequency of Consultant Review: Emergency and Acute Medical Care in over 16s: Service Delivery and Organisation, NICE Guideline 94* (National Institute for Health and Care Excellence, 2018).
[86] Salil Singh et al., 'Republished: Daily Consultant Gastroenterologist Ward Rounds: Reduced Length of Stay and Improved Inpatient Mortality', *Postgraduate Medical Journal* 88, no. 1044 (2012): 583–87, https://doi.org/10.1136/postgradmedj-2012-100033rep.
[87] Estabrook et al., 'Why the NHS Needs Adult Generalists'.

also, crucially, if scaling up generalist capacity in hospitals would come with financial ramifications, then it should be worth considering how the rest of the health system can benefit from this investment.

Creating a generalist that specialises in the management of more complex patients could, for example, hold a more active community role. However, doctors who manage both hospital wards and can provide community-based care are rare in the UK and most high-income health systems. Where they do exist they tend to be in countries with large rural areas such as Australia and New Zealand and involve the management of smaller community hospitals.[88]

Though while this community-hospital specialist hybrid may not exist in name, in function and process it exists across multiple specialisms. Geriatricians for example lead acute frailty wards, while also running virtual wards, conduct home visits, and working with care homes.

While the addition of a new doctor should be viewed through the lens of how a new generalist-specialist could help overall patient complexity across, primary, secondary and community care, it should primarily focus on hospitals with a community element, facilitated by the communication platform recommended in *Hospital as a service, not a building.* This would help to encourage the shift towards the community.

Obstacles to developing a new hospital generalist specialty

1. Funding model and cost

There are a number of considerations with introducing the 'hospitalist' model to the English NHS. It is difficult to create in the current funding model and experience from the US indicates that increasing the senior doctor workforce is, understandably, expensive.

However, the needs – clinical and financial – could plausibly outweigh the disadvantages of this model. It is likely expensive and would require meticulous planning, but the demand on the NHS in 20 years – even with a shift to prevention – is likely to be a considerably more intense version of today's.

Hence, while there is the upfront cost of investment, there is also a cost to not investing: more bed days and higher avoidable inpatient utilisation. The question then becomes how this model can be cost-effectively achieved in the English system.

It is, however, worth addressing some distinctions between the English and US funding model which may affect how financial returns would work in England. The funding model in the US lends itself to the hospitalist approach. This is because in the US, hospitals can bill per patient per day and so reductions in length of stay make the role visibly financially worthwhile to insurers.

In the UK, the block contract model – where trusts are paid a lump sum for non-elective activity – does not incentivise hiring more generalist consultants given their high cost and relatively intangible cash savings (given that the financial benefit would largely be in releasing bed days to be used for other income generating activities rather than additional cash) at least in the short-term. The expansion of hospitalists in the US also required significant, but not prohibitive, upfront costs, that are of course important to consider. But it is likely these would net off in the

[88] Eleanor M. Winpenny et al., 'Community Hospitals in Selected High Income Countries: A Scoping Review of Approaches and Models', *International Journal of Integrated Care* 16, no. 4 (2016): 13, https://doi.org/10.5334/ijic.2463.

long-term as part of the whole package of reform proposed across the 'Hospital of the Future' programme.[89]

However, even with all of these difficulties acknowledged, given the well-established shift in demographic demand to a group of patients with illnesses for numerous organ groups, it is implausible that the shape of the consultant workforce would not adapt to meet this demand.

2. Creating the specialty

In addition to creating a new specialty, there may also be an opportunity to combine specialties. Geriatricians have pioneered co-management of surgical patients on orthopaedic wards through the development of orthogeriatric medicine and this approach could be extended to other surgical subspecialties (e.g. urology and vascular) where older patients predominate.[90] However, even while this is more common, there is no formal dual training pathway (a dual CCT) in geriatrics and orthopaedics.

Aside from funding considerations, as above, there are relatively few obstacles to creating a new medical specialty. One consideration should involve the increase in workload for clinical and educational supervisors, and ensuring that if training places increase, this is reflected in job plans. There is a risk that without this, increases in medical school places will not generate the future pipeline of highly trained doctors.[91]

It is likely to come up against a degree of resistance from existing specialties and may require additional focus in order to attract applicants, but the process itself requires straightforward commissioning from the government. The responsibility for managing and regulating training sits broadly between government, the General Medical Council and the Royal Colleges:

- Government – controls the money, decides what is and is not a specialty (e.g. they can create new ones or get rid of old ones), and can change the proportion of trainees in different directions;
- General Medical Council (GMC) – sets high-level outcomes that people need to achieve at each level of training, and sets the standards that need to be delivered for training; and
- Royal Colleges – the statutory education bodies for their specialty, and develop curricula for their specific area which is then presented to the GMC for approval.

Recommendation 10: The Government should create a new hospitalist medical specialty specifically to deliver clinical generalism for patients with multiple undifferentiated problems in both hospital and community settings. This specialty should incorporate many of the responsibilities of a hospitalist from other countries, trained specifically in managing inpatient wards, diagnosing undifferentiated problems, and leadership and management practices. This is a role where additional training in the key principles behind good operational management would have the biggest impact. It should also incorporate extensive training in the community, including intermediate care units, rehab wards, hospital at home, virtual wards, and residential care.

[89] Vaughan, *What Can We Learn from the US 'hospitalist' Model?*
[90] Richard Southgate and Stephen Kates, *The Orthogeriatric Team Approach to the Management of the Elderly* (Musculoskeletal Key, 2016).
[91] *The State of Medical Education and Practice in the UK Workforce Report* (General Medical Council, 2024).

Recommendation 11: Alongside the Royal Colleges, the Government should investigate the potential to increase dual Certificate of Completion of Training (CCTs) for specialties where demand is growing considerably in response to demographic shifts. This could involve combining more generalist specialties with respiratory, cardiology, neurology, and palliative medicine.

Recommendation 12: In order to identify the training places needed both for a hospitalist specialty, and other generalist-adjacent specialties, the Government should use the comprehensive cost-benefit analysis (outlined in Recommendation 13) of consultant presence in hospital to identify the appropriate number of training places the new specialties would ideally need, and in turn the investment in deanery placements, assessments and supervision structures for the new training programme.

Overcoming low fill rates, recruitment, and retention

Generalist specialties in the NHS are less appealing for three key reasons: pay, prestige and culture.

In the NHS, hospital consultants are paid according to a standardised pay scale based on their years of experience and this does not vary across different specialties.[92] This means a generalist consultant, like a geriatrician, would be paid the same as a more specialist consultant, such as a maxillofacial surgeon, if they had the same number of years of experience. Consultants' salaries may be higher if they have additional duties, like management responsibilities, out of hours work or teaching, or if they are an NHS Clinical Excellence Award recipient.[93]

However, many NHS consultants supplement their income with private practice work.[94] In private practice, consultants from different specialties are not paid the same and more specialist consultants are typically able to earn substantially more than generalists. Surgical specialties and cardiologists are two of the highest paid specialties in private practice.[95]

Additionally, there are strong cultural incentives encouraging specialisation over the pursuit of secondary care generalism. Generalist roles for doctors in hospitals are associated with lower prestige and lower income within the sector, while still being associated with the same workload as specialists.[96] Many interviewees noted that generalist roles in hospitals are not particularly celebrated, nor seen as hard or aspirational. This discourages clinicians from pursuing such roles.

A study of UK medical students also found that students enter into an undergraduate medicine course with clear biases against generalism, which can moderate over time, but more often than not they are entrenched by the end of medical school.[97] Both first year and senior medical students associated generalism with ease of training, greater job availability and more management responsibility, whilst specialism was firmly associated with greater prestige, earning, knowledge and research.

[92] *Consultant Doctors and Dentists Pay Progression System Guidance* (NHS Employers, 2024).
[93] BMJ Careers, 'The Complete Guide To NHS Pay For Doctors', Web Page, 30 August 2022.
[94] BMJ Careers, *Tips For Choosing Your Medical Specialty*, 11 August 2022.
[95] BMJ Careers, *Tips For Choosing Your Medical Specialty*.
[96] Misky et al., 'Understanding Concepts of Generalism and Specialism amongst Medical Students at a Research-Intensive London Medical School', 2022.
[97] Misky et al., 'Understanding Concepts of Generalism and Specialism amongst Medical Students at a Research-Intensive London Medical School', 2022.

Given that much of the bias against pursuing generalist careers is cultural misconceptions and less money, there is clearly a role for incentives. Incentives influence behaviour and are important levers to attract, retain, motivate, satisfy and improve the performance of staff.

Incentives models in healthcare are well established, but generally include:

- Financial incentives – wages, additional payments or bonuses linked to the achievement of performance outcomes, or additional financial incentives not directly related to the performance of the person's duties, such as financial services or fellowships; and
- Non-financial incentives – work autonomy, flexibility in working time, and recognition of work.

The use of these incentives in hiring consultants is commonplace and can largely be incorporated into a consultant's contract. However, it is clear there are also problems long before a trainee doctor gets to the level of consultant whereby they can negotiate certain conditions of employment.

Retention in generalist specialties would benefit from a renewed focus on workforce planning, incentives and support structures. With particular attention to qualifying and finishing training, and alongside a cost benefit analysis of the scale of consultant presence necessary in a hospital, the Government should work with the GMC and Royal Colleges to incorporate, at a national level, additional financial or non-financial incentives that can be applied particularly to generalist specialties facing low fill rates and retention, and who will experience particularly high demand as demographic trends shift.

Recommendation 13: The Government should introduce incentives to encourage doctors to apply to generalist specialisms. Pursuing and completing a generalist route could involve a number of different financial incentives deliberately designed around finishing training: this could include a 'golden hello' payment, with half paid upon starting ST4 and half paid when fully qualified as a hospitalist, additional payments for completing each year of training, or additional payments on completion of training.

4.1.3.2 Current workforce

While creating a new specialty may help in the long-term, this will not impact the workforce for at least four years. Solutions for rethinking clinical generalism and ward management is also essential to overcome the generalism deficiency in hospitals.

There are, of course, some trade-offs to this approach – for example, consultant delivered outpatient and diagnostic activity decreased at the Royal Bolton following the previously mentioned ward round shift[98] – and the implications for increasing senior clinician presence on wards will vary depending on the hospital and how their wards are structured (e.g. some hospitals may have general medicine wards and others will have specialist wards, most will have a combination of both).

The way doctors are deployed in hospitals has evolved gradually in each hospital, shaped by departmental innovation, individual consultant contracts, available training programmes, and financial considerations.

[98] Singh et al., 'Republished'.

Generally, a ward is managed by:

- Consultant – clinical leadership, decision making and ward round oversight
- Specialist registrar – supervises specific treatments
- Registrar – clinical supervision day-to day
- Resident doctors – day-to-day tasks, patient follow-up, documentation
- Nurse matron – ward management
- Nursing staff – could include clinical nurse specialists
- Allied health professionals – physiotherapists, occupational therapists, dieticians

Improving generalism largely refers to the decision-making function of wards, so specifically consultants, registrars and resident doctors. While it may sound straightforward in principle to reconfigure staffing plans to increase the clinical input of generalists in hospitals, in reality it is complicated. Redeploying the current stock of generalist consultants to ward management conflicts with how hospitals are configured, how doctors are trained and paid, and how performance metrics work.

Consultant contracts are negotiated locally and differ hospital to hospital, depending on specialty mix, existing service configuration and academic or private practice included in the contract. Some settings may already lead daily ward rounds as part of the team culture.

There are also more systemic trade-offs to consider, notably with funding and opportunity cost. There is a risk, particularly with specialist wards, that if consultants shift time from clinics or procedures to inpatient ward rounds then this will undermine progress on reducing the elective backlog or income from elective procedures. For hospitals that would need to significantly increase consultant coverage it could mean additional salaries at the more expensive end of the workforce. Hospitals would also need to decide how weekend enhancement pay would play into increased ward coverage.

Maximising non-specialist doctors

Consultants are however, not the only senior or experienced doctors in hospitals. Encouragingly, there is an entire body of staff who could readily be deployed into more generalist patient flow focused roles.

There has been a consistent workforce trend in recent years towards doctors who do not specialise and instead seek local employment. The main groups of doctors this involves are LE (locally employed) and SAS (specialist and associate specialist) doctors.

LE doctors are the fastest growing group of doctors. From 2019 to 2023, there was a 75 per cent increase.[99] This is far greater than the increase in England and Wales of doctors on the specialist register (13 per cent) or the GP register (9 per cent) over the same period. Doctors joining from abroad have been the main drivers behind this, but there has also been a large and growing contribution from recent UK graduates.[100] SAS doctors have also increased by 19 per cent, as well as consultants not on the specialist register by 18 per cent.[101]

LE doctors are a very diverse group, combining early career UK graduates, doctors with many years of experience in one specialty area, and doctors who have worked in several different areas in both clinical and non-clinical roles. A standard day in the life as an LE doctor could involve ward rounds, shadowing a consultant on their rounds, performing clinical procedures

[99] *The State of Medical Education and Practice in the UK Workforce Report*.
[100] *The State of Medical Education and Practice in the UK Workforce Report*.
[101] *The State of Medical Education and Practice in the UK Workforce Report*.

for patients that need them, and participating in MDTs (multidisciplinary teams) to get a holistic perspective on patients' needs. They could spend their entire day on a ward or seeing patients independently in clinics.[102]

Given the lack of comprehensive operational evidence available on how wards are structured or managed in different hospitals, LE doctors could already be deployed as de facto generalist ward managers in many hospitals.

Yet interviewees consistently highlighted the lack of generalism as a systemic problem, indicating a significant gap between what the workforce evidence could imply (more non-specialist doctors) and what happens in reality. What's more, given that flow is universally a problem across hospitals, it could be assumed as a baseline that LE doctors are not being deployed as effectively as they could be for patient flow.

In reality, it is likely that LE doctors could be working in the ED; assisting in elective or emergency surgeries; or working in outpatient clinics or the acute medical unit. The role is flexible because trusts can allocate LEs to where the workload is highest. It should also be said that allocating LE doctors to areas of high workload is also not the same as allocating them to areas of high flow need – some wards may have high workload but with non-medical discharge barriers, for example.

The role of LE doctors in overnight working should also be a major consideration. As outlined in Section 3.2, skeletal overnight clinical coverage can often create a bottleneck between A&E and the wards.

However, increasing overnight coverage is considerably more complex than increasing weekend coverage. Complications with rostering, affordability and the prospect of extensive contract negotiation makes a substantial expansion in overnight coverage likely poor value for money. With this said, a targeted approach to overnight capacity – particularly focusing on doctors covering the 'medical take', improving the connection between A&E and the wards – would be preferable.

The question for ICSs and trusts is how to ensure the role of LEs as generalist ward managers and flexible resource is formally recognised rather than happening by accident. The main considerations for achieving this are chiefly related to funding and contracting: identifying opportunities both to incentivise ward management and connect this more formally with the hospitalist specialty within the contracts, without undermining local flexibility.

Recommendation 14: The Government should both conduct a cost benefit analysis of increased doctor coverage on wards in conjunction with a funding pot specifically for the recruitment of doctor-based ward management. The cost benefit analysis should weigh the cost of lost elective income due to poor flow versus saved bed days and improved throughput. The findings from these analyses should inform the baselines set at a government level as well as additional funding allocations for generalist doctor coverage in hospitals with particularly poor patient flow. The entire workforce plan should be remodelled to support more of these roles.

[102] *My Role as a Locally Employed Doctor* (General Medical Council, 2025).

Recommendation 15: Given that every hospital starts from different baselines, there will inevitably be a cohort facing persistent challenges that require more intensive support in addition to financial assistance for more doctors. Government should invest extensively in its performance management capacity – whether through the Downing Street Delivery Unit, DHSC or NHSE – to provide focused oversight and intervention. Crucially, this function must have the capability to engage directly with frontline teams, diagnose the root causes of underperformance, and work with local leaders to drive sustained improvement.

Recommendation 16: The Government should fund supplemental banding for LE doctors taking on ward management, patient flow oversight and weekend working. In order to make LE roles stepping stones into training specifically for the hospitalist consultant specialism, the Government should mandate that all LE contracts would give LE doctors access to a clinical or educational supervisor to sign off on competencies for specialist applications and study leave, rather than treating it as a rota filling role with no structured career development support. Ward management experience should also be linked to eligibility for higher band LE roles.

Recommendation 17: Rather than voluntary uptake, LE contracts should mandate a baseline share of overnight and weekend working for all LEs with flexibility on how it is scheduled. To make this fairer, contracts should offer some time based incentives that offer more protected study leave/guaranteed weekday nonclinical time for development in exchange for weekend coverage.

4.2 Inadequate management

NHS managers are routinely disparaged in the media and in policy. Yet anyone with a basic understanding of patient flow knows that managers are essential to the operational efficacy of a hospital. It is widely accepted and highlighted across recent academic literature and NHS case studies that management capabilities, especially operational management capabilities, are crucial for improving hospital performance, including patient flow.[103]

As one interviewee for this paper outlined, “doctors and nurses specialise in delivering patient care, whilst managers specialise in process, and it is process that makes the NHS work”.

Poor or insufficient NHS management in secondary care harms patient flow at every point of a patient’s care. From slow flow of patients through A&E, to the long elective care backlog, boosting management capabilities in hospitals is essential.[104] It is often the transitions between different organisational units that create delays in the patient flow and therefore unforeseen peaks in demand.[105] Managers are foundational to managing these transitions.

4.2.1 What is an NHS manager?

Some literature highlights that there is not always a clear relationship between the number of managers and performance.[106] However ‘manager’ tends to be a catch-all term that oftentimes

[103] Rutherford et al., *Achieving Hospital-Wide Patient Flow*; Bryan Jones et al., ‘Strengthening NHS Management and Leadership’, Web Page, The Health Foundation, 26 February 2022.
[104] The Rt Hon Professor the Lord Ara Darzi of Denham OM KBE FRS FMedSci HonFREng, *Independent Investigation of the National Health Service in England* (Department of Health and Social Care, 2024).
[105] Meike Madelung, *Hospital Capacity Management: Making Best Use of Available Resources* (IQVIA, 2023).
[106] John Power et al., *Just About Managing* (Policy Exchange, 2024).

simply refers to senior managers and leadership rather than operational managers on the ground.

There is a distinction between senior managers, whose responsibilities lie in the strategic aspects of NHS service provision, and service facing managers, responsible for the more day-to-day aspects of NHS service delivery.

Senior managers are crucial for the effective delivery of frontline NHS services, deciding strategic priorities, funding allocations, investment plans for infrastructure and innovation, and more. However, these managers are not directly involved in the day-to-day provision of frontline NHS services.

These day-to-day duties – from determining staff rotas, scheduling surgeries and coordinating discharges – are the responsibility of frontline managers.

Figure 8: Different senior management roles

Senior management roles	Explanation of the role
Department of Health and Social Care (DHSC)	Responsible for setting the direction for the NHS, agreeing the amount of funding for the NHS and setting the legislative, financial and policy framework.
NHS England → abolition to be implemented by March 2027	Currently responsible for allocating the NHS funding agreed by the government, deciding NHS priorities and monitoring the performance of NHS organisations
Integrated Care Systems (ICSs) → established in July 2022	Set up to improve population health, improve health inequalities, enhance NHS productivity, and help the NHS support social and economic development.
Integrated Care Boards (ICBs) → there is one ICB in each ICS	Responsible for managing the NHS budget provided to the ICS by NHS England, planning health services for their local population and working with local providers of NHS services, as well as local authorities for social care
Very Senior Manager (VSM)	The most senior managers in an NHS organisation providing a health service including the CEO, those directly reporting to the CEO and members of the Executive Board.
Executive Senior Manager (ESM)	The most senior managers in NHS arm's-length bodies like the Care Quality Commission or NHS Blood and Transplant.

Source: Health Careers, 'Roles in NHS management', Web Page, NHS, 2022.

Figure 9: Different service management roles

Service facing management roles	Explanation of the role	Examples of role
General	Responsible for the delivery of a health service which could be a small service at one site or a service across a whole trust	Communications and corporate affairs, performance and quality management, project management, purchasing and contract management, strategic management
Clinical	A clinician who is the head of their clinical department	Clinical audit manager, clinical governance manager, clinical governance manager, head of clinical governance and risk management
Operational	Responsible for ensuring that services run smoothly day-to-day	Ward/unit managers, theatre/operating room manager, outpatient clinic manager, service line or department manager, process improvement manager
Finance	Responsible for ensuring frontline staff have the resources they need to perform their jobs	Management accountant, financial planning manager, assistant director of finance, head of finance
Estates	Responsible for maintaining NHS properties including hospitals and other physical sites	Carbon and energy manager, estates technician, estates officer, estates manager, head of estates, director of estates and facilities
Human Resources	Broad HR responsibilities for frontline and other administrative or management staff	Human resources manager, medical staffing manager, assistant director of human resources, divisional human resources manager
Project	Responsible for planning, delivery and implementation of new policies or services	Cancer workforce project manager, project director

Source: Health Careers, 'Roles in NHS management', Web Page, NHS, 2022.

NHS organisations which provide health services will be referred to as frontline organisations, for example hospitals, urgent treatment centres or community health services. Running a frontline organisation, such as a hospital, would require numerous Very Senior Managers (VSMs) and the full range of service facing managers.

Standard day in the life of an operational manager in an acute hospital

If the manager is focusing on flow, the first thing they will do is get a sit-rep on discharges and admissions for their department. They will then go to the bed meeting and/or board rounds for specific wards. This will identify tasks for the manager to complete.

The manager will then liaise with the rest of their division, e.g. the wards and the different clinical departments. If they have patients going into the discharge lounge, they need to ensure they are in the discharge lounge in a specified amount of time.

This may also involve checking in on all of the overnight referrals from the ED who are categorised as needing an intervention – for example, does a senior clinician need to confirm that seven different patients need heart monitoring or can some be discharged or admitted into a virtual ward.

If the manager is working in an elective specialty, they will also be managing waiting lists. This means they have to ensure patients are in outpatient clinics and operating theatre lists before they hit the 18-week target, and making sure these patients are adequately prioritised.

Alongside these operational responsibilities, they will also be supporting governance of the departments, managing budgets and business development.

4.2.2 The importance of managers

The NHS is woefully under managed, both compared to international health systems and to other parts of the UK workforce. They make up around 2 per cent of the NHS workforce compared to approximately 11 per cent of the UK workforce.[107] It has been one of the slowest growing groups of staff in the NHS over the past decade, with only 2.9 per cent more managers in 2024 than in September 2009.[108] As a result of this slow growth, managers make up a smaller proportion of NHS staff now, 1.9 per cent, compared to in 2009, 2.6 per cent.[109] While it is not clear what the ideal proportion of managers would be, it is clear this is inadequate.

4.2.2.1 Performance impact

The empirical evidence on the relationship between management and performance is not always equivocal or applicable to the English NHS,[110] but there are two key English studies which have outlined the relationship between a higher proportion of managers to staff and improvements in clinical and productivity outcomes. Interviewees for the 'Hospital of the Future' project – often at a COO level – also consistently emphasised the role that managers play in delivering day-to-day operational efficiency and maintaining flow.

The first study, conducted by the London School of Economics and McKinsey, found a strong relationship between specific hospital management scores and specific hospital health scores.[111] Specifically for UK hospitals, it found a one point improvement in the management practice score is associated with a 6 per cent fall in the rate of deaths from heart attacks. It also found a 33 per cent increase in income per bed and a 20 per cent increase in the probability that the hospital is above average in terms of patient satisfaction.

The other study, of 160 trusts between 2007 and 2012, also found a statistically significant impact on performance. Even a small increase in managers – two per cent to three per cent of the workforce – led to a marginal improvement of one per cent in patient satisfaction scores, a five per cent improvement in hospital efficiency and 15 per cent reduction in infection rates.[112] The study concluded that there was a "very high likelihood" that the proportion of managers to staff was the variable driving these improvements.[113]

4.2.2.2 Connecting internal interdependencies

Effective patient flow hinges on recognising and managing the interconnectedness of different departments. Indeed, a significant variable that can disrupt patient flow is the siloed nature of these. To an extent this is necessary – it is not possible to have one team of 9,000 staff. Yet departments and teams are too fragmented and inward facing.

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[107] Beacon et al., *Hospital of the Future: Hospital as a Service, Not a Building*.
[108] Sonia Nosheen, *Are There Too Many NHS Managers?* (NHS Confederation, 2024).
[109] Sam Freedman and Rachel Wolf, *The NHS Productivity Puzzle: Why Has Hospital Activity Not Increased in Line with Funding and Staffing?* (Institute for Government, Public First, 2023).
[110] Charlotte Ward et al., 'What Is the Relationship between Hospital Management Practices and Quality of Care? A Systematic Review of the Global Evidence', *Health Policy and Planning* 40, no. 3 (2025): 409–21, https://doi.org/10.1093/heapol/czae112.
[111] Stephen Dorgan et al., *Management in Healthcare: Why Good Practice Really Matters* (London School of Economics and Political Science, McKinsey and Company, 2010).
[112] Gianluca Veronesi et al., 'Are Public Sector Managers a "Bureaucratic Burden"? The Case of English Public Hospitals', *Journal of Public Administration Research and Theory* 29, no. 2 (2019): 193–209, https://doi.org/10.1093/jopart/muy072.
[113] Veronesi et al., 'Are Public Sector Managers a "Bureaucratic Burden"?'

This requires a mechanism that allows coordinated actions across large numbers of interdependent roles and subsystems, and to create as much internal flexibility as possible. According to interviewees, junior and middle operational managers are usually this mechanism.

Organisationally, most acute hospitals are arranged into approximately four divisions: diagnostics, women's and children's, medicine, and surgery and anaesthetics. And within this, a typical hospital will consist of several interdependent units, including A&E, the Intensive Care Unit (ICU), operating theatres, inpatient wards, diagnostics, and laboratories.

Departments are often divided functionally and professionally, and sometimes with insufficient communication channels. This can lead to conflict, but more often the result is inefficiency and waste. It also means patient transfers are often suboptimal, with care not often joined up with poor information sharing and communication.

The most clear breakdown in cohesion is between the ED and the rest of the hospital. Commonly when a patient presents at A&E with an undifferentiated medical problem, they will go through the ED and will be accepted by the acute medics. Subsequently, they may enter an emergency assessment unit – the goal here is that they would be treated or discharged in 72 hours or referred into a specialty.

Based on feedback from interviews, the breakdown between departments often happens between the ED and the specialties: some managers reported in interviews that commonly, the specialties might develop acceptance criteria independent of what might be best for the organisation. They might act rationally for their department but dysfunctionally for the wider organisation. This is exacerbated by a cultural tendency for doctors and nurses to work largely within their division. Good operational managers are essential in overcoming these divides.

4.2.3 Problems with hospital management

There are three core problems with operational management in NHS secondary care. There are not enough managers; the targeting, training and development of managers is inadequate; and it is not clear which models of management are most effective.[114]

4.2.3.1 Insufficient numbers

The NHS is under-managed: managers make up only 1.9 per cent of the NHS workforce, compared to 11 per cent in the wider economy.[115] The NHS similarly seems to be undermanaged compared to international examples. The UK spends 2p in the pound on healthcare administration, meaning management and administration costs, compared to 5p in Germany and 6p in France.[116]

A crucial cause of this under-management is the Health and Social Care Act 2012, which abolished three out of five tiers of NHS management.[117] This act reflected a desire to streamline NHS management in frontline organisations, and resulted in a 17.5 per cent reduction in managers over the subsequent five years.[118] Lord Darzi described this legislative

[114] Beacon et al., *Hospital of the Future: A Framing Paper*.
[115] Beacon et al., *Hospital of the Future: A Framing Paper*.
[116] Sonia Nosheen, 'Are There Too Many NHS Managers?', *NHS Confederation*, 16 February 2024.
[117] Darzi of Denham OM KBE FRS FMedSci HonFREng, *Independent Investigation of the National Health Service in England*.
[118] Nosheen, 'Are There Too Many NHS Managers?', 16 February 2024.

move as “a calamity” and “disastrous”, causing “a permanent loss of [management] capability from the NHS”.[119]

This is particularly acute given that, while the managerial workforce of frontline organisations decreased in size, the clinical workforce grew.[120] The number of NHS managers in frontline organisations has increased since 2019, but current levels still lag behind those of 2011.[121]

4.2.3.2 Inadequate targeting, training and development

Not only are there not enough managers, the targeting, training and development of these managers is inadequate. The Messenger Review of NHS Leadership in 2022 identified systemic inadequacy in how leadership and management in the NHS is trained, developed and valued.[122]

NHS management careers in frontline organisations are treated far less favourably than clinical ones.[123] Interviewees argued that the clinical workforce sees junior and operational managers as lower status. The inconsistency of training means the quality of managers is variable, which tends to exacerbate this perception.

NHS managers fulfil high pressure roles requiring unusually strong diplomatic and people skills. As the example above demonstrates, their standard day-to-day responsibilities require resilience, anticipatory and strategic planning skills, non-accusatory conflict resolution skills, decisiveness and extensive emotional intelligence. This blend of capabilities makes clear the need for formalised management training.

Interviewees also highlighted a shortage of management skills among people who were employed during or shortly after the pandemic: with money available and no targets, managers hired at this time of crisis often did not get the operational skills development.

Both the Messenger Review and Lord Darzi’s Independent Investigation emphasise the importance of greater consistency, higher standards and better talent management in the targeting, training and development of NHS managers.

4.2.3.3 Ambiguity about the most effective model

Numerous case studies, reports and research have identified management capabilities as essential for improving hospital efficiency and patient flow.[124] However, it is less clear the exact model of management which is the most effective. It seems likely this lack of clarity contributes

[119] Darzi of Denham OM KBE FRS FMedSci HonFREng, *Independent Investigation of the National Health Service in England*.
[120] Chris Thomas et al., *Finding Hope: The Final Report of the 2021/22 IPPR Health and Care Workforce Assembly* (Institute for Public Policy Research, 2023).
[121] Darzi of Denham OM KBE FRS FMedSci HonFREng, *Independent Investigation of the National Health Service in England*.
[122] General Sir Gordon Messenger and Dame Linda Pollard, *Health and Social Care Review: Leadership for a Collaborative and Inclusive Future* (Department of Health and Social Care, 2022).
[123] Messenger and Pollard, *Health and Social Care Review: Leadership for a Collaborative and Inclusive Future*.
[124] Darzi of Denham OM KBE FRS FMedSci HonFREng, *Independent Investigation of the National Health Service in England*; Philip Åhlin et al., ‘Solutions for Improved Hospital-Wide Patient Flows – a Qualitative Interview Study of Leading Healthcare Providers’, *BMC Health Services Research* 23, no. 1 (2023): 17, https://doi.org/10.1186/s12913-022-09015-w; Rutherford et al., *Achieving Hospital-Wide Patient Flow*.

to challenges of targeting, training and development. It also seems likely this lack of clarity risks ineffective models of management being used.

Lord Darzi identified a substantial commitment to improving the quality and capability of management as essential for the successful delivery of integrated, preventative care closer to home.[125] Darzi also emphasised better operational management would be required to address the important and tricky issues currently facing hospitals, including long elective backlogs and slow hospital wide patient flow, especially in A&E.

4.2.4 Moving to a new model

It is clear that the role of managers in a hospital is of similar importance to many other clinical professionals, in that an organisation that lacks operational efficiency is unlikely to deliver optimal clinical effectiveness. Just as nurses would not be placed on a ward without the necessary skills and support to provide safe care, managers should not be expected to run a hospital without the appropriate expertise and resources.

Two interventions are required: ensuring high-quality managers are being brought in and ensuring the current stock is fully trained and equipped to perform well.

Increasing the overall volume of managers

While the overall volume of managers is insufficient, deciding an arbitrary numerical target of managers is not advisable. This could create perverse incentives to simply hire new managers rather than focusing on the quality, capability or effectiveness of management.

Trusts may end up hiring to hit the target rather than meet their needs, even if those roles do not add real value or improve service delivery. It also conflicts with the notion of letting ICSs and trusts decide the shape of their workforce based on their individual needs.

The NHS should, nevertheless, focus on increasing the overall quantity NHS management. However, this should be driven by performance and governance incentives – such as improved leadership metrics, accountability frameworks, and professional development – rather than by numerical targets or ring-fenced funding allocations.

Training and remuneration of managers

NHS managers currently come from a variety of backgrounds, and the majority of managers (82 per cent) either begin as clinical staff or administrative staff and progress to management – this means they receive little formal training and have been described as ‘managers by accident’.[126]

[125] Darzi of Denham OM KBE FRS FMedSci HonFREng, *Independent Investigation of the National Health Service in England*.
[126] Power et al., *Just About Managing*.

Figure 10: Current management training courses offered by the NHS

Course	Mandatory or Voluntary	Cost	Accredited?	Format	Level of management
Edward Jenner Programme	Voluntary	£680	Chartered Management Institute accredited	Self guided suite of short online courses	Beginning of career
Graduate Management Training Scheme	Full-time salaried job	N/A	No	Two-year course including three placements	Beginning of career
Mary Seacole Programme	Voluntary	£995	Chartered Management Institute accredited	100 hours of online learning and three behavioural workshops	In first leadership role
Foundations in System Leadership: collaborating for health and care	Voluntary	Free	No	Five weeks of self-directed online study	Lower to mid level leaders
Core Managers: Developing inclusive workplaces programme	Voluntary	Free	No	Six two-hour online courses	Any NHS worker leading a team
Rosalind Franklin Programme	Voluntary	£1,200	Chartered Management Institute accredited	120 hours of online learning, four days of workshops and small group work	Mid-level leaders aspiring to lead large and complex departments
Elizabeth Garrett Anderson Programme	Voluntary	Funding for postgrad diploma provided by employers, exact fees for MSc dependent on provider	No	Two-year programme, leads to MSc in Healthcare leadership	Middle to senior leaders
Nye Bevan Programme	Voluntary	£4,500	No	12-month programme, online learning, residential workshop and self-managed learning sets	Senior leader who wants to move into a board role

Source: 'Programmes to Help You Grow as a Leader', Web Page, NHS Leadership Academy.

Crucially, the schemes detailed in Figure 10 are voluntary, additive courses rather than a foundational part of management training. Indeed, interviewees for this paper clarified that many of the junior and middle operational managers that are crucial for patient flow are not often the product of these schemes. Several interviewees spoken to across the 'Hospital of the Future' programme indicated an overall lack of familiarity with these schemes.

The managers that assist with flow between departments come from standard hiring processes rather than a centralised scheme – with the systematised training schemes generally focused on the senior NHS leadership pipeline rather than daily operational management. Interviewees suggested there is some mandatory training for operational managers but it does not get "anywhere close to what is needed" and is "pretty appalling".

There is further ambiguity around how these managers are paid. The majority of managers (53 per cent) are ranked *below* Band 8A in the Agenda for Change pay scale (£53,755 - £60,504 per annum).[127]

In short, this ambiguity surrounding how managers are hired, trained, and paid perpetuates a vicious cycle undermining their effectiveness and in turn their credibility with clinical staff.

[127] Power et al., *Just About Managing*.

There are relatively few obstacles to improving management in the NHS, other than being willing to take management seriously and fund a new pipeline of managers.

Recommendation 18: The Government should formalise management titles and provide uniformity across the NHS. Alongside this, the Government should abolish the NHS Leadership Academy and instead establish its own professional accreditation for NHS operational managers in a similar vein to the Nursing and Midwifery Council (NMC) for nurses and midwives, or the General Medical Council (GMC) for doctors. The professional body should govern standards and the government mandate uniform titles, legislate accreditation and give it parity of esteem with the GMC or NMC. This will also require funding for transitional accreditation so existing staff can upskill and register.

Recommendation 19: Every new operational manager should be paired with a manager or where appropriate, clinical staff, such as a nurse, as a mentor who can help act as a management coach either within the hospital or within the ICS. This provides a relatively low cost way to provide advice from experienced managers within the NHS.

Recommendation 20: The Government should expand the number, quality and visibility of apprenticeship routes into NHS operational management, especially at Band 3 to 5 levels. These should be nationally standardised, integrated into a recognised career framework and lead to professional accreditation aligned with the proposed NHS management council or licensing body.

5. Bottlenecks at the back door

Delayed discharges have become a major challenge for patients, hospitals, and the taxpayer, largely because of their impact on patient flow and overall hospital efficiency.

Lack of social care capacity is commonly cited as the cause, yet this is routinely disproven by available data and accounts of hospital staff. Social care is, of course, crucial in ensuring patients can move from one site of care to another. But this is just one part of a lengthy process to discharge a patient, whereby the inefficiency derives both from processes within the hospital and between the hospital and local authorities.

A substantial number of people have experienced delayed discharges in recent years. Indeed as outlined previously, across England in February 2025, at the height of the winter crisis, there were on average 13,740 patients stuck in hospital despite being medically fit to leave.[128] This is equivalent to nearly 23 hospitals' worth of inpatients who no longer needed to be in hospital.

Given that the cost per patient per night is estimated to be £609.87 (adjusted for 2025 prices),[129] this will contribute to excessive avoidable expenditure. This is also exacerbated by the accrual of indirect costs such as delayed operations.

As with all bottlenecks, extended hospital stays due to delayed discharge have ramifications across the patient flow journey. Blockages at the back door of the hospital limit the capacity available at the front door. What's more, longer stays, as discussed, increase the risk of hospital-acquired infections and functional decline.[130]

These problems result from a complex landscape of accountability, funding and inefficient processes. Discharging patients who are medically safe to leave the hospital requires clarity about who is responsible for the patient, efficient operational processes, and the appropriate workforce (outlined in Chapter 4).

5.1 Drivers of delayed discharges

The reasons for delayed discharges can vary. Previous analysis from QualityWatch and Nuffield Trust, as well as *Re:State*, has found that the NHS, rather than local authorities, have been responsible for the majority of delayed transfers of care.[131]

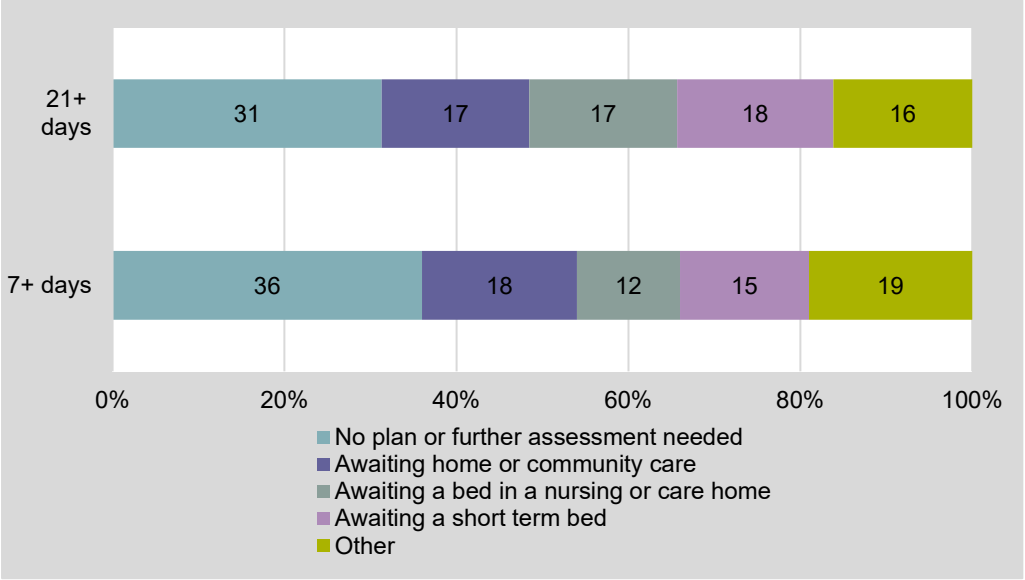
This pattern has continued into 2025. In January 2025, 36 per cent of patients whose discharge from hospital was delayed for seven days or more were delayed for reasons that could be attributed to the discharge process in hospital and care transfer hubs.[132]

[128] NHS England, *Acute Discharge Situation Report* (2025).
[129] Abdollah Jalilian et al., 'Length of Stay and Economic Sustainability of Virtual Ward Care in a Medium-Sized Hospital of the UK: A Retrospective Longitudinal Study', *BMJ Open* 14, no. 1 (2024): e081378, https://doi.org/10.1136/bmjopen-2023-081378.
[130] Samaneh Moradi et al., 'The Extra Length of Stay, Costs, and Mortality Associated With Healthcare-Associated Infections: A Case-Control Study', *Health Science Reports* 7, no. 11 (2024): e70168, https://doi.org/10.1002/hsr2.70168.
[131] QualityWatch, *Delayed Discharges from Hospital*; Sebastian Rees and Hashmath Hassan, *The A&E Crisis: What's Really Driving Poor Performance?* (Reform, 2023).
[132] QualityWatch, *Delayed Discharges from Hospital*.

These patients have been identified as medically fit for discharge but needed further assessment, referrals, a discharge summary or agreement on what further and immediate care they might need. An additional 18 per cent were waiting for further support provided at home, which can be organised both by NHS community services and adult social care.[133]

The picture for patients with a delayed discharge for 21 days or more, who tend to require more support upon discharge than those with a shorter length of stay, is slightly different. This results in a higher proportion of delays attributed to services organised predominantly by social care. However, even with more significant social care obstacles, the most common reason for delay for long stay patients can be attributed to the hospital and care transfer hub processes.[134]

Figure 11: Reasons for delayed discharges



Source: QualityWatch, *Delayed Discharges from Hospital* (Nuffield Trust, 2025).

Patients with a long stay in hospital who are due to be discharged to a permanent bed in a nursing or care home are the most delayed, with a weekly average of 70 per cent experiencing delays in May 2024. Indeed, patients needing some form of follow up care are generally the most likely to be delayed: in May 2024, a weekly average of 57 per cent of patients due to be discharged to a short-term care bed were delayed, having decreased only 3 percentage points from May 2021.[135]

5.2 Summary of the discharge process

Generally, discharges are coordinated with the multidisciplinary team within each ward and a discharge team that sits across the wards. According to interviewees for this paper, the discharge process often begins as soon as a patient is admitted.

Daily monitoring of the patients will consist of both board rounds (the meeting at the beginning of the day discussing each patient's progress) and ward rounds (clinical examinations of each patient). Once a patient has been identified as medically fit for discharge through these

[133] QualityWatch, *Delayed Discharges from Hospital*.
[134] QualityWatch, *Delayed Discharges from Hospital*.
[135] QualityWatch, *Delayed Discharges from Hospital*.

processes, it then falls on a variety of different individuals to make capacity and capability assessments, and teams to organise the necessary care.

1. **Identifying the discharge pathway**

There are generally five patient pathways with which to discharge someone under the "Discharge to Assess" (D2A) model, which was released during the pandemic:[136]

- Pathway zero: discharge home or to residential care home without additional care needs.
- Pathway one: discharge home or to usual place of residence with new or additional health and/or social care needs.
- Pathway two: discharge to a community bed-based setting which has dedicated recovery support. New or additional health and/or social care and support is required in the short-term to help the person recover in a community bed-based setting before they are ready to either live independently at home or receive longer-term or ongoing care and support.
- Pathway three: discharge to a new residential or nursing home setting, for people who are considered likely to need long-term residential or nursing home care. Should be used only in exceptional circumstances.
- Pathway four: discharge to a hospice or care home for ongoing care in the final days of life.

2. **Identifying complex needs**

Once the pathway is identified, the question then becomes how to move that person onto the next stage of their care. This is usually not communicated with the patient, but goes through a discharge referral team who manage onward care, which is often coordinated by occupational therapists. Once a plan has been identified, it will then be communicated with the patient.

This discharge referral process requires identifying if there is a complex need and how to proceed with the discharge. It is at this stage that patients often needlessly occupy beds when they may actually be medically fit for discharge. The patient could:

- Be homeless – this requires a social worker or independent mental capacity advocate;
- Have uninhabitable housing or accommodation;
- Need cognitive specialist care; and/or
- Need reablement or rehab support.

3. **Identifying responsibility and funding for complex needs**

Each of these pathways requires a different process. The responsibility for this is largely split between the NHS and the local authority, depending on their commissioning powers.

- If they require rehabilitation and reablement at home, that tends to fall within the NHS financial arrangements and organisation.
- If they need care worker support, this is managed by the local authority.
    - Different local authorities will take different approaches, but some, for example, will have integrated discharge teams who receive all of the notifications to

[136] *Implementation of a Discharge to Assess Model* (NHS England, 2022).

discharge, send them to the relevant local authority, who subsequently triage it and send to the relevant team.

4. **Organising final discharge arrangements**

Even once this has been arranged, there are then multiple hospital responsibilities that can keep patients in beds for a number of days:

- Transport out of hospital – relatives could pick them up but the patient may struggle to get into a car, in turn requiring specialist transport, often an ambulance;
- Prescriptions;
- Discharge letters – this requires action from the consultant;
- Onward referrals to other agencies – this could include district nurses or special community nurses that deal with stomas or dressings; and/or
- Informing next of kin.

5.3 Moving to a new model of discharge

Despite the fact many responsibilities lie with the hospital, one unavoidable reality remains: many operational issues with the discharge process are exacerbated by the profound scarcity in the supply of social care services. Age UK found that 2 million older people have some unmet need for social care.[137] This illuminates a profound problem with the overall model for adult social care, which falls outside the scope of this paper but will be the focus of future *Re:State* research.

Underpinning insufficient funding for social care, is also a confused set of incentives at a system level that undermine integration between NHS trusts, ICBs and local authorities. These structural challenges continue to limit the hospital's ability to manage discharge effectively.

However, this paper is specifically focused on the problems that lie within the hospital's control. As is evidenced in the below Figure, most tasks in the discharge process are the hospital's responsibility. It is also crucial to note that the vast majority of patients are discharged home rather than to residential care. While the exact nationwide number is unclear, the 2023 CQC Inpatients Survey found that most respondents (91 per cent) said they return to their own home after discharge.[138] This further underscores that hospitals hold the main responsibility for addressing delays.

The process outlined above shows the extensive, multidimensional nature of the discharge process and the litany of opportunities for needlessly long delays to occur. This chapter is therefore focused on operational issues in the hospital, rather than the systemic issues underpinning poor integration between local government and the NHS.

As discussed in Chapter 3, seven-day working would go some way to optimising the discharge process, but further action is needed. As well as clarifying accountability for discharge and escalating disputes, there are more optimisations, particularly in automation and transport, that would help solve avoidable frictions in the process.

[137] '2 Million Older People Now Have Some Unmet Need for Social Care', *Age UK*, 26 September 2024.
[138] *Adult Inpatient Survey 2023* (Care Quality Commission, 2024).

Figure 12: Responsibility for tasks in the discharge process

Task	Hospital	Local authority	Both
Identifying the discharge pathway	✓		
Identifying complex needs	✓		
Identifying responsibility and funding for complex needs	✓		
Organising care worker support		✓	
Organising a bed in residential care home		✓	
Organising support for homeless		✓	
Organising more habitable housing		✓	
Organising rehabilitation and reablement at home			✓
Organising transport out of hospital	✓		
Organising prescription	✓		
Writing discharge letter	✓		
Onward referrals to other agencies	✓		
Informing next of kin	✓		

5.3.1 Fixing avoidable frictions

There are a number of avoidable frictions in the discharge process that are entirely independent of social care.

Transport delays

A commonly cited frustration from interviewees was, for example, the delays caused by organising transport for patients when they need to be discharged. This was corroborated in research from Healthwatch.[139]

Transport arrangements will vary extensively depending on the hospital. This is often provided by Non-Emergency Patient Transport Services (NEPTS), however it is not automatically guaranteed, and patient could be directed to alternative solutions if NEPTS availability is limited.[140] NEPTS generally focuses on transporting people to appointments rather than discharge, and eligibility criteria can also vary by NHS trust, and as a result some hospitals

[139] *Transfer of Care Hub: Current Discharge Pathway Report* (Healthwatch Thurrock, 2022).
[140] *Non Emergency Patient Transport Services Eligibility Criteria* (NHS England, 2022).

rely on local contracts or private providers to fill gaps. Indeed only 10 per cent of NEPTS journeys are for discharge.[141]

The other transport options include:

- Hospital managed transport – some hospitals may have in house vehicles or vans to move patients within the hospital or to local homes
- Private ambulances/transport providers – hospitals may have local contracts with private providers to supplement NEPTS
- Taxis – sometimes reimbursed by the hospital if the patient qualifies and there are no other options

Delays most often happen when hospitals rely on external providers or need to coordinate multiple services. There are often valid reasons why transport might need to be cancelled by the hospital, but a review by NHS England found that discharge planning happening late in the day or multiple bookings being made with different providers contributed to increased cancellation rates.[142]

The most obvious ways in which hospitals can improve flow would be by screening transport needs on admission, booking in advance and/or maintaining a small fleet for urgent discharge cases.

Many of the digital platforms outlined in Section 3.1, such as digital twins, would go some way to helping hospitals to coordinate transport. However, there are still legitimate questions about the supply of transport and how to incentivise forward-thinking about transport early on in the admissions and discharge process.

Recommendation 21: In the short-term, government should seek to boost hospital transport capacity, and provide hospitals with a dedicated transport improvement fund for them to deploy as they see fit. Government should also require hospitals to report transport related discharge delays, to give hospitals, ICSs and government visibility and benchmarking data to tackle the problem internally. The combination of these interventions could also result in trusts and ICSs collaborating on transport infrastructure at scale to reduce costs.

Medication bottlenecks

Prescriptions were a commonly cited bottleneck with interviewees. As one of the final steps in the discharge process, interacting with one of the busiest functions in the hospital, it is highly susceptible to delays. Indeed, a survey by the CQC in 2019 found that nearly three in four patients who were delayed on discharge from hospital said it was because they had to wait for medicines.[143]

Hospital pharmacies are often busy with both inpatient and outpatient workloads, and if there are a surge of discharge prescriptions late in the day (which is common), this creates another backlog, leading to delays. Small errors – which could include dose, drug names or allergies – can also bounce back to the prescriber, compounding delays.

As outlined in the Section 4.1, it can also take time to identify what medicines would be most appropriate for patients with multiple comorbidities, and will require long or complicated

[141] *Improving Non-Emergency Patient Transport Services* (NHS England, 2021).
[142] *Improving Non-Emergency Patient Transport Services*.
[143] Carolyn Wickmare, 'Most Patients with Hospital Discharge Delays Blame Medicines Wait', *The Pharmaceutical Journal*, 24 June 2019.

medication lists. Patients may also need to be counselled about new medicines or devices, and if pharmacy staff are not available, discharge is postponed until advice is given.

However, many of the common frustrations in the discharge process can now easily be automated, such as the automation of prescriptions or ambient AI to write discharge letters.[144] This was analysed extensively in a recent *Re:State* report, *Operation automation: How to achieve productivity gains in the healthcare system.*

Automated medical dispensing system

The Bolton NHS Foundation Trust installed an automated medication dispensing and management platform to enhance improve their medication management and increase patient safety.

After installing the technology, the Trust obtained measurable improvements in workflow efficiency, patient safety, and financial savings. There was a 60 per cent reduction in time when issuing medications, 62 per cent reduction in time when issuing controlled drugs and 74 per cent reduction in time when checking controlled drugs.[145]

Further, a staff survey affirmed the utility of the system, with 100 per cent of pharmacy staff and 85 per cent of nursing staff agreeing that patient safety was improved, and that the system was felt to be the safest and preferred way to issue and store medicine.[146]

Discharge letters

There are a range of different problems with discharge sign-off, many of which would be remediated by a seven-day discharge workforce and a new hospitalist specialty. However, despite this, one of the major practical obstacles to patients being signed off for discharge is the discharge letter.

This is extremely important in the handover process, and done badly, it can cause confusion, readmissions and even harm. Done well, it ensures smooth continuity of care. It includes crucial information on their diagnosis, investigations and procedures, treatment during admission, medication on discharge, ongoing care, and advice for the patient.

Given the depth and technicality of information provided in discharge letters, and the fact they must be written by doctors, they are a common bottleneck in the discharge process. Additionally, the pressure to discharge patients means there can be a trade-off between speed and completeness.

Recently, there has been an increasing move towards ambient voice technologies (AVT) – a voice based system that helps clinicians to create clinical notes – which can auto generate a draft discharge summary. AVT, when augmented with AI, can listen to conversations and respond in the right way.

This means that key diagnoses, procedures and care plans can be captured in structured text, ready for a clinician to approve. These systems can also pull data from EPRs and include them in the discharge letter. In addition to ensuring accuracy, this obviously frees up clinician

[144] 'Guidance on the Use of AI-Enabled Ambient Scribing Products in Health and Care Settings', Web Page, NHS England, 2025; 'New Pharmacy with Hi-Tech Robot Opens at Guy's Hospital', Web Page, Guy's and St Thomas' NHS Foundation Trust, 2019.
[145] *BD Pxyis: How Bolton NHS Foundation Trust Utilised Automation to Transform Their Medication Management Process* (Becton Dickinson, 2024).
[146] *BD Pxyis: How Bolton NHS Foundation Trust Utilised Automation to Transform Their Medication Management Process*.

time while speeding up the discharge process. It shifts the task for doctors from authoring to reviewing and approving.

Some hospitals are experimenting with AVT already, and NHS England recently released extensive guidance on its implementation.[147] While anecdotally, interviewees informed us doctors often use AI to help with letters and notes, the use of AVT in the hospital system remains relatively small scale. Oxford University Hospitals are trialling AVT in a number of inpatient and outpatient services, as are Chelsea and Westminster NHS Foundation Trust.[148]

Recommendation 22: As part of Recommendation 2, trusts should be explicitly encouraged to invest in automation and ambient AI technologies via the Innovator Passport, that can expedite some of the traditional frictions in the discharge process, such as prescriptions or discharge letters respectively.

Recommendation 23: The Government should develop a centrally supported programme to implement the 10 highest impact flow interventions nationally, building on existing national programmes. Additionally, trusts should be required to map discharge related frictions and demonstrate in their operational plans how they are exploring automation or AI-enabled solutions to address them, drawing on the Innovator Passport where appropriate. NHS England should collate and publish exemplars where these technologies have delivered measurable discharge improvements.

5.3.2 Confused ownership and accountability

The fact that there is no clear authority for discharge – both at a system and operational level – often means that numerous different processes fail to align and there is commonly confusion as to which member of staff is responsible for different processes (for example, is it the occupational therapist or the discharge coordinator's responsibility to organise transport).

Given the number of tasks involved and the potential for bottlenecks across settings and professional groups, failure to have a single point of accountability can significantly undermine this process.

'Transfer of Care' hubs have been proposed as a solution to optimise discharge processes in recent years. But evidence suggests that even these initiatives – designed to bring decision making into one place – can lack effective communication.[149]

This in turn leads to inaccurate or incomplete information, further slowing down the discharge process. Indeed Transfer of Care hubs are primarily supposed to exist as a coordination and brokerage function rather than being empowered to escalate or act decisively in disputes between services.

A major obstacle to creating a new single point of accountability is that the current accountability system derives from a complicated system of legal and clinical liability. If a patient is medically fit but cannot be discharged, the hospital must ensure safety and cannot discharge unsafely and is therefore liable for continued care. The local authority is not legally liable until it has completed a Care Act assessment, determined that the needs meet the

[147] *Guidance on the Use of AI Enabled Ambient Scribing Products in Health and Care Settings* (NHS England, 2025).
[148] *AI to Cut Paperwork to Free up Doctors' Time for Patients* (GOV.UK, 2025); 'Ambient Voice Technology Trial at Oxford University Hospitals', *NHS Oxford University Hospitals NHS Foundation Trust*, 27 June 2025.
[149] *Transfer of Care Hub: Current Discharge Pathway Report*.

eligibility criteria and had reasonable opportunity to commission services.[150] Until then, the patient remains the hospital's responsibility.

Re-assigning responsibility therefore would likely involve re-assigning legal accountability, which would be a lengthy, complicated process that would involve statutory action at the government level.

Alternatively, a timeframe can be set for discharge which would then motivate all actors involved in organising discharge to do it. There is currently no statutory, enforceable timeframe by which a local authority or hospital must arrange discharge once a patient is deemed medically fit. But it is also possible that these mechanisms can over-correct and focus too much on responsibility, as outlined below.

Delayed Transfer of Care

Pre-Covid, 'Delayed Transfer of Care' (DToC) in the Community Care (Delayed Discharges) Act 2003, then replaced by the Care Act 2014, provided a timeframe target for discharge.

The aim of DToC was to identify individuals who are the responsibility of social services, and the Act introduced a financial incentive for local authorities to meet their obligation to provide services needed for the individual's safe transfer to a more appropriate setting, in the form of a fine payable to the healthcare provider.

However, analysis has previously found that the patients who were categorised as DToC were often significantly less than the number who were actually medically fit to leave hospital, in some cases only a quarter of the medically fit patients.[151] This is because the definition was tight – the aim was to identify individuals who are the responsibility of social services, and this required a multi-step process which meant it was perfectly possible to have two patients, with clinically identical needs, and for one to have been declared as DToC and the other not, depending on which forms have been completed and when.[152]

It also created undue emphasis on who is responsible, which even in the absence of fines, does not encourage working together. Lastly, the performance management of DToC numbers created an incentive to not identify patients as a DToC at all, and therefore reduce the numbers reported.[153]

An alternative model should ideally involve cross-system targets and incentives. It should not be focused on just hospitals or just local authorities, but the total time from discharge decision to the point the care is in place, regardless of cause. Linking this to outcome-based funding rather than penalties would also be more likely to encourage cooperation.

Recommendation 24: ICSs and local authorities should be funded to create a new tier of cross-agency discharge coordinators, with the capacity for at least one per hospital, with the authority to resolve disputes on funding and legal arrangements and escalate where necessary. This should be accompanied by new clear contractual mechanisms for sharing discharge risk. ICSs could also agree to empower this role through Section 75 pooled budget arrangements, granting them the ability to resolve budget disputes where necessary.

[150] *Assessment of Needs under the Care Act 2014* (Social Care Institute for Excellence, n.d.).
[151] Jo Andrews and Jack Rowlandson, *DTOC 7 Years on: Why We Still Need to Talk about Hospital Discharge* (Carnall Farrer, n.d.).
[152] Jo Andrews et al., *It's Time to Stop Talking about 'Delayed Transfers of Care'* (Carnall Farrer, 2017).
[153] Andrews et al., *It's Time to Stop Talking about 'Delayed Transfers of Care'*.

Recommendation 25: A small number of targets, ideally one to three, should be introduced at the ICS and local authority level. These targets should focus on the time from a declaration that a patient is fit for discharge to actual discharge and/or the success of their reablement with bonuses or penalties applied.

6. Conclusion

Patient flow underpins an efficient healthcare system and is essential to high-quality care. A failure to consistently prioritise it means that a health care system that was once world leading has become defined more by waiting than by healing.

But achieving the ambition of seamless patient flow is, self-evidently, not straightforward. It requires a complicated combination of financial incentives, workforce reform, structural changes to medical training and renewed approaches to integration.

Yet while it is not straightforward, it is also not impossible. Improved patient flow has been achieved under previous governments: the 1997-2010 Labour government, for example, reduced A&E waiting times dramatically, and in turn substantially improved patient flow.

However, the policy levers of the past – enormous cash and resource injections, new targets, new funding models and Foundation Trusts – are not available in the same way today. As policymakers face low productivity, resource constraints, and pressure to shift to prevention, the approach must look fundamentally different.

It is plausible that the returns on any of these reforms will not be seen overnight. But in any other industry, refusing to pursue fundamental reforms would be unthinkable, if it were no longer able to meet the needs of its target market. The cost of not investing is significantly higher than the cost of investing and adapting.

Yet the central question persists: how can hospitals be strengthened over the long term without compromising other parts of the health system – such as primary care – that are also essential for financial sustainability? While the needs of increasingly expensive hospitals and the need to shift care into the community are not always mutually exclusive, this inevitably requires a judgement call. Acknowledging these trade-offs directly is an essential prerequisite to fixing the permacrisis in hospitals.

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