

Hospital at home

Guiding principles for service development

October 2025

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Key Points

- Hospital at home is a service that provides acute, hospital-level care by healthcare
 professionals in a home context, for a condition that would otherwise require
 acute hospital inpatient care.
- Two key drivers for developing a hospital at home service are:
 - providing a more person-centred care experience for the patient, and
 - the need to reduce pressures on acute hospitals.
- The evidence for hospital at home is positive. It demonstrates similar or improved outcomes for older adults when compared to hospital care as well as increased patient and caregiver satisfaction, and cost-effectiveness. However, more highquality evidence, relevant to the Scottish context and disease-specific pathways, is required.
- Hospital at home aligns with the objectives of the Public Bodies (Joint Working)
 Scotland Act 2014, Carers (Scotland) Act 2016, the Scottish Government
 Operational Improvement Plan 2025, the Health and Social Care Service Renewal
 Framework 2025, Realistic Medicine and Value Based Health & Care.
- Hospital at home complements other community healthcare services that aim to keep patients at home. It provides a distinct level of care in patients' homes to avoid unnecessary hospital admission.
- Hospital at home interfaces with a variety of other health and social care services to provide a holistic service.
- All hospital at home services in Scotland align with the current definition.
 However, services are adaptable to local need and operate differently depending on local context.
- Safe and effective hospital at home services are achievable with:
 - clear referral pathways
 - effective processes
 - appropriate workforce planning
 - strong senior leadership and governance, and
 - impactful evidence, experience and engagement activity.
- Healthcare Improvement Scotland has produced a set of maturity criteria for services to measure their progress.
- Several tools and resources are available for hospital at home professionals. These
 can be accessed via multiple sources. See section 6.0 Tools and Resources to find
 out more.

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1.0 Purpose of the guiding principles

This document contains information for NHS boards and local authority staff involved in the development of hospital at home services in Scotland. It is intended to assist in the local and regional planning of specialist services which support people to receive hospital-level care at home. The guidance provided in this document is an update to our previous publication focusing on services for frail older adults. It also includes new guidance on respiratory and heart failure adult hospital at home pathways.

This is not intended to be a stand-alone guide to setting up a hospital at home service. Instead, we recommend using it alongside support from Healthcare Improvement Scotland and the Scottish hospital at home community. Further guidance and resources are available via our learning system, on our website and via our Microsoft Teams community page. See section **6.0 Tools and Resources** to find out more.

2.0 Hospital at home: definition, rationale and context

2.1 What is hospital at home?

2.1.1 Definition

Hospital at home is a service that provides acute, hospital-level care by healthcare professionals in a home context, for a condition that would otherwise require acute hospital inpatient care.

Healthcare Improvement Scotland, Public Health Scotland and Scottish Government have worked together to develop a comprehensive definition for consistent use across NHS Scotland. The definition is also used to inform appropriate data collection. The following key features of hospital at home are based on this agreed definition.

2.1.2 Key features of hospital at home

- Unscheduled care is delivered within a same-day response time.
- Clinical services are delivered in the patient's home, in place of inpatient
 admission, but not preventing access to hospitals where required. 'Patient's home'
 may include their care home, a relative's home, or other homely settings.
- Patient care is mainly conducted in-person, with additional remote monitoring offered by some services. Remote monitoring, independent of face-to-face care, is not considered hospital at home.
- Secondary care specialists act as senior decision makers and responsible medical officers (RMOs), sometimes with the help of other grades of medical staff.

- Care is provided by multidisciplinary teams (MDTs) of healthcare professionals, which include nurses, allied health professionals (AHPs) and other doctors, complying with current acute standards of care.
- These professionals deliver short, time-limited, acute episodes of care. This can be for the entire acute episode, as an alternative to hospital admission, or at the end of the episode to support early discharge from hospital.
- Teams have access to hospital-level diagnostics, such as endoscopy, radiology or cardiac diagnostics where necessary.
- Professionals administer secondary care level interventions above those that can be delivered by other community services, such as intravenous fluids and oxygen, where required.
- Services complement other community-based health and care initiatives that support patients
 to remain in their own homes. They provide a level of care that no other service in the locality,
 other than acute hospital, can provide.
- Services do not cover chronic disease management (other than during acute exacerbations) or home births.

2.1.3 Patient journey

The following case study follows the journey of a patient treated by a hospital at home service in Scotland. Names and images have been changed to maintain privacy.

Hospital at home teams treat many different patients and conditions. This case study is just one example of patient flow during an episode of care. It highlights how members of the MDT work together and interact with other services to achieve the best outcomes for the patient. It also calls attention to the role of unpaid carers and their support of the patient during an episode of care. It shows how hospital at home teams can ensure carers are informed and appropriately involved in shared decision-making throughout the care episode.

Mary's journey with hospital at home

Mary, 81, lives with her husband in a two-story house. Their daughter is their main carer. Mary has heart failure and stage 5 chronic kidney disease, which is being managed conservatively. She has been increasingly breathless over the past few days and has increased swelling in her legs.

After trying to treat Mary's symptoms with increased oral diuretics and seeing no improvement, her general practitioner

(GP) feels hospital-level care is required. Mary expresses a preference to stay at home with her husband and support from her daughter. The GP suggests a referral to hospital at home, to which Mary gladly agrees.

Hospital at home receive the referral and a doctor, Laura, visits Mary in her house the same day. Laura speaks with Mary's husband and daughter to take a collateral history. She then conducts a full clinical examination, including a national early warning score (NEWS) assessment, an electrocardiogram, blood tests and checking Mary's weight. Her weight has increased due to excess fluid retention and her oxygen levels are low.

Laura reviews Mary's medications and suggests intravenous diuretic treatment and short-term oxygen. She also suggests placing a urinary catheter as Mary has been struggling to reach the upstairs bathroom. The results of Mary's blood tests return later that day. They reveal a decline in kidney function since her last assessment with the renal team.

Laura discusses Mary's case at the afternoon virtual ward round with the consultant and the rest of the hospital at home team. A hospital at home nurse takes responsibility for contacting the renal team. She advises them of Mary's deteriorating condition and her wishes with regards to an eventual palliative care approach. They arrange for the renal conservative care nurse to conduct a home visit the next day. The nurse and the renal team are both clear on the priorities for Mary. Future care planning discussions are commenced by the hospital at home team.

The hospital at home nurses continue to treat Mary over the next few days. She receives intravenous diuretics, monitoring of her urine output and oxygen levels, and blood tests. Her weight is checked regularly to monitor fluid status. A commode is delivered to the house and a physiotherapist from the hospital at home team starts working with Mary to improve her mobility. Her progress is discussed daily at the virtual ward round but 4 days into treatment, the improvement appears minimal. The team decide to consult cardiology for specialist advice.

Over the next few days, Mary's symptoms slowly improve. The team agree to switch her back to oral diuretics and continue to monitor her progress. As Mary's breathing and mobility start to improve, her catheter is removed and her oxygen weaned off.

On day 9, Mary is discharged from hospital at home. She has improved significantly and no longer needs hospital-level care. A summary of her acute episode, medication changes and her agreed future care plan is sent to her GP. Arrangements are made for an expedited follow-up appointment with the renal team. Mary also agrees to a referral to the community palliative care team.

2.2 Why introduce hospital at home?

There are various drivers for developing a hospital at home service. Key amongst them are:

- the desire to provide a more person-centred care experience, and
- the need to reduce pressures on acute hospitals.

Healthcare Improvement Scotland conducted a literature search in summer 2025 to explore the current evidence on hospital at home. The aim of the search was to find out what works for whom and why. Searches were also conducted to explore respiratory and heart failure hospital at home pathways. The results of all searches are summarised in this section.

2.2.1 Patient and carer satisfaction

Hospital at home aims to provide person-centred care by considering the most appropriate location of care in line with the patient's preferences and circumstances. It also aims to minimise disruption to a person's existing formal and informal care arrangements.

The evidence suggests patients are supportive of the hospital at home model. They appreciate the reduced risk of hospital acquired infections and frequently report staff are competent and motivational. They are often more satisfied with the care provided at home than in the hospital. It is important to note, however, that many of the studies had poor response rates or an imbalance in responses between those treated in hospital and those treated at home. ^{1, 2, 3}

The evidence surrounding carer satisfaction is more nuanced than patient experience. Most studies report positive findings. They note that carers feel supported by hospital at home and appreciate the lower risk of infections. However, some report carer anxieties around looking after someone who is acutely unwell. They also express worries about straining the carer-relative relationship.^{2, 4, 5} It is recommended in the literature that carers be suitably involved in shared decision-making about the patient's care. It is also suggested that some training is given to help them feel capable and confident.¹

2.2.2 Older people and frailty

In 2022, people over the age of 85 made up approximately 2.5% of the UK population. The number of people in this age bracket is predicted to double over 25 years, representing 4.3% of the population by 2047.⁶ Older people in the acute setting:

are at higher risk of complications related to a hospital stay

- present greater levels of complexity
- have more co-existing conditions
- are prescribed more medications
- are more likely to breach the 4-hour waiting time target in the emergency department, and
- have more agencies involved in their care.⁷

Complications associated with hospital stays are relevant to current hospital pressures leading to delayed discharges. The longer a discharge is delayed, the longer patients spend away from their normal activities. This increases the risk of them losing mobility and independence, often referred to as deconditioning. Deconditioning leads to an increase in need for support at home and care home admissions.⁸

Frailty is a complex, multidimensional syndrome associated with the ageing process. It leads to the inability to withstand illness without loss of function. Adults living with frailty are more likely to need hospital care and are more susceptible to the risks of hospitalisation. Some 30–56% have been shown to experience a reduction in their functional ability between admission and discharge. Such acquired disability increases the pressure on social care services. This must be minimised if such services are going to be sustainable in the future.

We need safe, effective alternatives to hospital to manage pressures and improve patient experience. Standard 10 of Healthcare Improvement Scotland's ageing and frailty standards is:

'Older people living with frailty who experience a sudden change in their health can access timely, coordinated and consistent support'. ¹¹

Hospital at home is well suited to deliver on this standard. It can provide an alternative to hospital admission or provide a route to early discharge which allows the patient to complete their treatment at home. The outcomes for older adults treated by hospital at home have been shown to be the same as, or better than, those associated with hospital care. Hospital at home services have demonstrated:

- similar rates of re-admission at 3 to 12 months post-discharge
- similar rates of mortality at 6 months, and
- lower rates of admission to long-term residential care at 6 months.

2.2.3 Disease-specific pathways in hospital at home

A 2015 systematic review of heart failure hospital at home pathways showed positive outcomes. A similar 2016 review of respiratory pathways also had positive findings. These findings were based on the results of randomised controlled trials conducted in the early $2000s.^{12,\,13}$

More recent observational studies have also demonstrated similar re-admission and mortality rates when acute heart failure is treated at home. The evidence stresses the importance of face-to-face care as part of the treatment to optimise patient outcomes. ^{14, 15, 16} Two recent randomised controlled trials showed that pure remote monitoring models do not improve outcomes for heart failure patients. ^{17, 18}

The Liverpool heart failure virtual ward operates similarly to Scotland's hospital at home services. In their recent economic evaluation, they observed a net cost benefit when treating heart failure patients at home. They also reported a 36% reduction in accident and emergency activity, relieving pressure on this part of the hospital system. They reported that the magnitude of cost benefit was variable at a patient level, depending on acuity. No relevant, recent evidence for the cost-effectiveness of respiratory hospital at home was identified.

Although disease-specific evidence exists, much of it is dated and there is a need for more contemporary evidence to inform these hospital at home pathways.

2.2.4 System impact

A recent systematic review found that hospital at home is likely to be cost-effective in the treatment of certain patient groups. However, hospital at home services are unlikely to be the solution to all pressures. They should be considered as part of a wider approach to system transformation. The evidence also suggests that expansion is required to sustain the benefits in the long term. 12

Hospital at home has demonstrated benefits for the Scottish hospital system, freeing up space in hospitals for the patients who can't be treated elsewhere. Services in Scotland provided approximately 129,000 overnight bed days in 2024–2025. As a result, an estimated £16.7 million in healthcare costs were avoided. It also is estimated that many care home admissions have been avoided. This is because hospital at home reduces the likelihood of deconditioning. ^{13, 19}

The delivery of the hospital at home model can be adapted to optimise outcomes based on local context, patient groups and indications.

2.2.5 Knowledge gaps

The papers consulted agreed a future research priority should be to understand the impact of hospital at home on caregivers. This includes exploring how negative impacts can be minimised.¹

The literature search identified high-quality evidence for older adult hospital at home pathways. There are notable gaps for disease specific pathways and patient and caregiver satisfaction. This includes a lack of recent, UK-based evidence for respiratory and heart failure hospital at home services. No studies looking at the impacts on adults under the age of 65 were identified.

2.3 Health and social care policy landscape

Delivering acute care in patients' homes, as opposed to a hospital setting, is a relatively new concept. Development therefore requires close collaboration, and robust strategic planning and commissioning, across sectors. A range of policies and guidance provide a framework to support the design and delivery of community-based services. These include the Public Bodies (Joint Working) Scotland Act 2014, the Scottish Government Operational Improvement plan (2025) and the Health and Social Care Renewal Framework (2025).

2.3.1 Public Bodies (Joint Working) Scotland Act 2014

The Public Bodies (Joint working) Scotland Act 2014 identified four key objectives.

- Health and social care services should be firmly integrated around the needs of individuals, their carers and other family members.
- Health and social care services should be characterised by strong and consistent clinical care and professional leadership.
- The providers of services should be held to account jointly and effectively for improved delivery.
- Services should be underpinned by flexible, sustainable financial mechanisms that give priority to the needs of the people they serve, rather than the organisations through which they are delivered.^{20, 21}

Under the act, unscheduled care is delegated to integration authorities which comprise of local authority and NHS board decision makers. Agreement from relevant integration authorities is therefore key to the acceptance and funding of hospital at home services in regions across Scotland.

2.3.2 Scottish Government Operational Improvement Plan

In March 2025, Scottish Government published their Operational Improvement Plan. This builds on NHS boards' individual delivery plans and lays out commitments and actions for NHS Scotland to deliver against the vision for NHS renewal and improved experience for patients.

The plan focuses on four key areas:

- improving access to treatment
- shifting the balance of care
- improving access to health and social care services through digital and technological innovation, and
- prevention of illness by working with people to proactively meet their needs.²²

Shifting the balance of care is a term used to describe the alleviation of pressures on acute hospitals, by caring for more people in the community. Hospital at home helps deliver on this in two ways.

- Admission avoidance. Hospital at home accepts referrals directly from primary care, ambulance services and emergency department. Eligible patients can receive acute care in their homes, avoiding an inpatient stay.
- **Early supported discharge.** Patients who still require acute care but no longer need to be in a hospital can be referred to hospital at home for the remainder of their treatment, freeing up space in the hospital.

The plan also states the government vision for the expansion of hospital at home services by December 2026.²² This includes the broadening of pathways beyond the traditional remit of older adult acute care. Healthcare Improvement Scotland are working with NHS boards and health and social care partnerships (HSCPs) to develop heart failure, respiratory and paediatric specific hospital at home pathways. Guidance on developing a paediatric service is not included in the present document. This information will form a separate guiding principles resource in spring 2026.

2.3.3 Health and Social Care Service Renewal Framework

Alongside the Operational Improvement Plan, Scottish Government published the Health and Social Care Service Renewal Framework in June 2025. This lays out changes required to improve how people experience health and social care in Scotland. The changes are underpinned by five key principles:

- prevention
- people
- community
- population, and
- digital.²³

Hospital at home delivers against the people and community principles which focus on person-centred, 'value based' healthcare. This approach empowers patients and promotes the shift from hospital-based models to a higher proportion of care delivered in the community.

2.3.4 Realistic Medicine and Value Based Health & Care

Realistic Medicine puts the person receiving health and social care, and their priorities, at the centre of decisions made about their care, recognising that a one size does not fit all, and moving away from a 'doctor knows best' culture. It advocates for shared decision-making about treatment in line with the person's wishes. It also takes a healthy approach to risk, and is open with patients and families, allowing them to decide what is best for them. It also aims to reduce overtreatment and unnecessary

medical interventions. It encourages innovation and improvement, while recognising that excessive variation in the outcomes of care can be service-driven and potentially harmful.²⁴

Similarly, Value Based Health & Care (VBH&C) advocates for person-centredness, focusing on treatment that is of value to the patient personally, not just in terms of cost. VBH&C is about healthcare providers working in partnership with patients and their families and understanding what matters most to them. This approach is intended to promote the sustainability of NHS Scotland services. It looks to do so by optimising the use of healthcare resources where they are needed most, reducing harm and waste in the process.²⁵

The principles of Realistic Medicine and VBH&C should thread through all healthcare provision. This includes delivering care in the most appropriate setting for the patient and involving them as key stakeholders in this decision. Hospital at home can provide an alternative care setting for people who would prefer not to go to hospital. This is possible providing they have an appropriate home environment, and their care can be safely delivered there. Being cared for at home can also provide patients with a degree of autonomy which may not be available in the hospital. For example, they may choose to have relatives around them for support, without being subject to visiting hours. They may also choose to have relatives help them with some elements of personal care, which would normally be delivered by hospital staff.

2.4 Integrating hospital at home

Hospital at home must interface with existing services in the area it is implemented. It must do so in a manner that is sensitive to the local context, and some variation in approach is appropriate. However, it is important that services achieve similar outcomes and adopt cost-effective approaches. Reducing unnecessary variation has been shown to be a key driver in delivering high quality and cost-effective care.²⁶

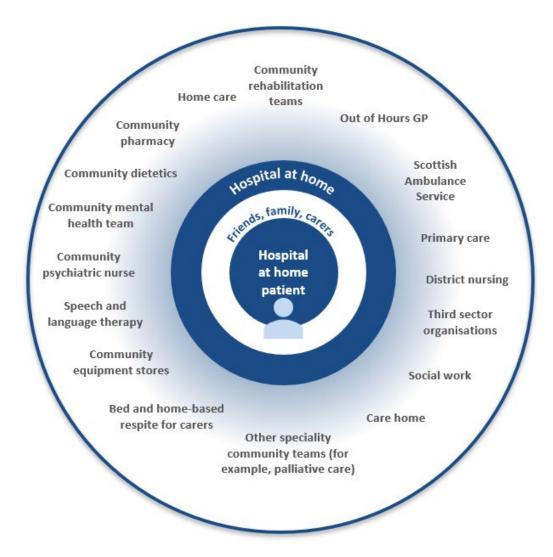
Provision of hospital at home services is led by acute care specialists within NHS boards. However, commissioning of the service and integration with other health and social care services within an area is coordinated by the integration authorities. Therefore, co-ordination and close collaboration between NHS boards and local authorities, collectively as integration authorities, is key. The appropriate stakeholders from both organisations must be involved to achieve optimal transformation.

2.4.1 Hospital at home interfaces

Hospital at home teams interface with a variety of other services to enable a holistic approach to patient care. Examples of such services are shown in Figure 1 below. The diagram shows how hospital at home connects with the outer network of services for the benefit of the patient and their personal network at the centre. Hospital at home

teams benefit from clear lines of communication and agreed referral pathways with other services.





Key to success is clear criteria for admission to hospital at home. This ensures that individuals can access the service most suited to their acute needs and supports safe, effective diagnosis and treatment. There needs to be clear referral pathways into other services to ensure seamless transition. Hospital at home teams should consider building understanding with services in their community through:

- proactive contact
- sharing of standard operating procedures (SOPs), and
- sharing of service documentation such as referral criteria.

2.4.2 Examples of services complementary to hospital at home

There is already a range of well-developed services providing support to people in the community. Many of these services work to keep people at home where possible. They intend to reduce unnecessary and preventable hospital admissions and facilitate

supported discharge. Many are multidisciplinary and provide targeted, time-limited support to vulnerable individuals. This ranges from long-term management of chronic conditions to short-term episodes of ill health. When specialist acute care is needed, hospital at home can provide this in the community.

Figure 2: Hospital at home in the context of other community services



Services that are distinct from, and need to dovetail with, hospital at home can be grouped according to the classifications in Figure 2.0 above. These include the following.

Remote monitoring or virtual wards – Enhanced care at home

These services are provided by integrated health and social care teams. They identify patients at high risk of destabilising using remote monitoring technology. They use devices to monitor patients' physiological parameters and detect any deterioration. High risk of destabilising may be due to exacerbations of chronic diseases, such as chronic obstructive pulmonary disease (COPD), or challenging social circumstances. Staff providing these services are professionals working in primary, secondary and community care. The service limits disruption to the individual and can avoid unnecessary hospital or care home admission.

In England, virtual wards and services that solely deliver remote monitoring are often referred to as hospital at home. However, they do not meet the NHS Scotland definition. Remote monitoring is in use in some areas in Scotland, but it is adjunctive to face-to-face care. Evidence about its effectiveness without corresponding face-to-face care is also limited. The technology is currently being assessed by the Scottish Health Technologies Group (SHTG).

Community wards - Enhanced care at home

Community wards are a form of proactive care which help to manage complex health needs in the community and aim to prevent acute illness. They seek to identify first signs of deteriorating frailty and provide early intervention. They do so through the input of AHPs, medication reviews, and introduction of rapid packages of care to support a patient to avoid a crisis. The services have a small core team that combines

health and social care staff co-ordinating short-term therapy interventions and care. Staff can include GPs, community nurses, AHPs, and social care staff. Examples of community wards in Scotland include the Aberdeenshire frailty community ward or the Angus integrated frailty models of care.

Discharge to assess — Enhanced care at home

Discharge to assess is a form of support that determines a person's long-term care needs after they are discharged from hospital. The assessment takes place when the patient is back in their own environment, rather than in hospital. These services are usually led by AHPs who tailor rehabilitation goals to the individual needs, circumstances and home environment of the patient.

Community-based teams - Proactive care / Primary and community care

The primary care MDT, led by GPs as expert medical generalists, also has a role in proactively managing the care of people with long term conditions and complex care needs. This is set out in the 2018 General Medical Services contract.²⁷ Their role supports improved population health and can reduce the risk of episodes of ill health requiring acute care. There are also condition-specific community teams providing specialist multidisciplinary input. Examples of these services include support for COPD patients, heart failure and frailty.

Community-based teams have a range of roles and responsibilities but typically include therapy specialties working alongside GPs, nursing staff and homecare providers. They provide multidisciplinary care and rehabilitation in a person's own home. This is intended to either facilitate step down from hospital or to prevent escalation to hospital or care facilities. There can be significant overlap with reablement teams which provide short-term care at home to aid recovery after hospital discharge.

Community-based teams also include district nursing services and advanced nurse practitioners (ANPs). District nursing teams provide complex and expert care to vulnerable individuals at home. ANPs often assess patients who are acutely unwell, to support clinical decision-making for GPs.

Wellbeing reviews - Proactive care / Community based service

Wellbeing reviews are a type of occupational therapy assessment for older people living with frailty. A pilot programme in South Ayrshire assessed the impact of wellbeing reviews. The team proactively identified older people living with mild to moderate frailty using the electronic frailty index in primary care. Patients were then offered an occupational therapy wellbeing review. Patients showed improved wellbeing and reduced GP appointments in the 6 months after review.

2.4.3 Involvement of unpaid carers

A key area for consideration in the development of any hospital at home service is the recognition of unpaid carers as equal partners in the planning and delivery of care and support. The needs of unpaid carers need to be carefully balanced to ensure their wellbeing is respected.

Unpaid carer fatigue can result in hospitalisation for patients who may otherwise be treated at home. However, for some carers, home treatment is a more convenient option. It removes the need to travel to and from hospital and allows them to continue with their other responsibilities or activities. Carer involvement in decision-making around whether hospital at home is a suitable treatment option for the patient is crucial.

It is important that staff identify carers and take the opportunity to discuss their concerns and needs. Through the Carers (Scotland) Act 2016, all carers are now entitled to an Adult Carer Support Plan. This identifies their needs and the advice and support required to promote their wellbeing. Depending on the local area this is either accessed by referral to social work or to the local carers centre. When a carer's needs are identified they need to be referred to the relevant agencies and third sector organisations.²⁸

2.4.4 Linking with care homes

People living in care homes are likely to benefit from hospital at home care as they often have multi-morbidities and frailty. Care homes generally demonstrate a willingness to work with hospital at home services. However, frequent and consistent communication is needed to ensure the roles and responsibilities of care home staff and hospital at home services is clear.

Escalation during a patient treatment episode is crucial to ensure that people are not transferred to hospital unless it is necessary. It is important that hospital at home services build relationships with local care home personnel to ensure that patients are being referred appropriately. Care homes often have a high turnover of staff or will use agency staff working on shifts. This can be problematic in ensuring consistent care and oversight of patients supported by hospital at home. Consistency can be improved using SOPs or 'teach back' exercises to ensure staff feel comfortable following a patient's care plan.²⁹

3.0 Experience of delivering hospital at home in Scotland

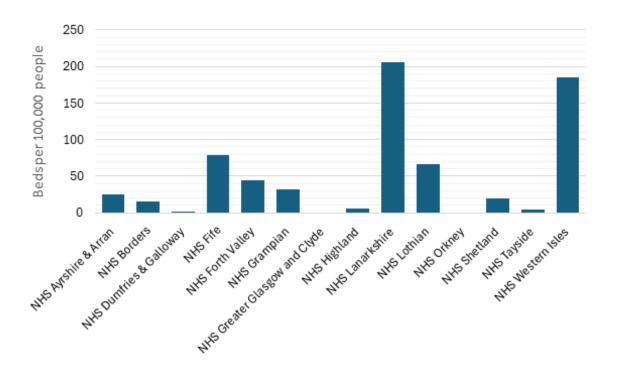
Scotland is made up of a variety of communities, from very rural and remote, to islands and urbanised areas. This variation means that the hospital at home model

must be adapted to suit local needs. Services also develop at different rates depending on availability of resources and demand for the service in the area. This section describes the current landscape of hospital at home in Scotland and provides examples of service structures which have been developed with local context in mind. Services feature differences in how they are staffed, their hours of operation and how they are integrated, amongst other things.

3.1 Summary of activity

The latest available summary of hospital at home activity in Scotland is the 2025 annual report of the national programme, produced by Healthcare Improvement Scotland. This document contains data for acute older adult hospital at home pathways. Up until 2025, other pathways were not part of the national programme. Figure 3 shows the number of hospital at home beds in March 2025 per 100,000 population aged over 65 years, in each of the 14 Scottish NHS boards.³⁰ In 2024–2025, hospital at home was the eighth largest 'hospital' in Scotland based on number of acute beds. It provided more geriatric beds than any other hospital. Since the 2024–2025 report was published, 13 services have received funding to develop heart failure and/or respiratory pathways. Six services have also received funding to develop paediatric hospital at home services.¹⁹

Figure 3: Number of acute older adult hospital at home beds (2025) in each NHS board area per 100,000 population aged 65+



To date, patient experience data is not reported nationally. Data is collected by services through patient experience surveys. Other patient and carer views are collected anonymously through www.careopinion.org.uk. This is managed and used locally but there is currently no national process for collation and analysis of patient experience data. Healthcare Improvement Scotland plan to provide services with guidance on evaluating patient experience and using the data to drive improvement.

3.2. Service profiles

The hospital at home model of care was first introduced in Scotland several years ago. Services have since been developed in response to local need, which has resulted in some operational variation. Profiles of three NHS Scotland boards, with different approaches to delivering their hospital at home service, are below. The profiles illustrate how the hospital at home model can be adapted to local context but be equally successful and sustainable.

Lanarkshire

NHS Lanarkshire was one of the early developers of hospital at home, launching its service in 2011. It currently operates the largest hospital at home service in Scotland.

Geography

Lanarkshire's hospital at home service covers both rural and urban communities. It serves all of North Lanarkshire. Over the past two years, it has expanded into South Lanarkshire to include the rural Clydesdale area, which has a small population but a wider geographical spread. The model in Clydesdale differs slightly due to its rural nature. Medical consultants review patients remotely and conduct virtual ward rounds with support from nurse practitioners.

Staffing and governance

The service is largely consultant-led, supported by nurses, GP trainees, and support workers. Advanced practitioners and specialty doctors have been introduced to expand the service and support the development of the Clydesdale rural hub. Lanarkshire also has dedicated hospital at home AHPs, including physiotherapists and occupational therapists.

Pharmacy input has varied, but embedding a pharmacist is considered vital to maintaining a gold-standard model of care.

Hours of operation

The service operates 7 days a week, from 8am to 8pm. The introduction of ANPs and availability has enabled patient reviews to extend into the evening.

Pathways

Lanarkshire's service offers both admission avoidance and early supported discharge for the acute care of older adults. These pathways are well established, with approximately 75% of cases being admission alternatives and 25% step-downs from local hospitals.

NHS Lanarkshire is collaborating with the Interface Directorate and Flow Navigation Centre to improve utilization of hospital at home services and introduce heart failure and respiratory pathways. A paediatric hospital at home service is also planned for 2025/2026.

Technology

The Lanarkshire team piloted two point-of-care testing (POCT) devices to assess their impact on clinical decision-making and time to intervention. Over a 12-month period, 220 patients received POCT, with results indicating improved decision-making and faster treatment initiation. Use of POCT kits has since increased as staff have become more familiar and confident with the equipment, supporting earlier decisions and improved patient management.

The service uses Microsoft Teams for video consultations between consultants, patients, and practitioners which has enhanced efficiency and team confidence. Due to its rural nature, the Clydesdale hub uses Microsoft Teams for both patient consultations and MDT meetings.

Remote monitoring and a digital platform have recently been implemented to support patient management at home and improve service efficiency. Further guidance and reviews are planned.

Integration

The service works closely with the Scottish Ambulance Service (SAS) to reduce hospital conveyance and increase direct referrals to hospital at home. Collaboration with the Interface Directorate and Flow Navigation Centre helps ensure appropriate patient referrals. Further work has also been done with nursing homes to try and support patients in their homes.

Sustainability

Data shows a year-on-year increase in the median number of patients treated monthly by Lanarkshire's hospital at home team. While capacity is being maintained or increased, staff retention remains a challenge due to the non-recurring nature of service funding, resulting in fixed-term contracts. It is vital that there is recurring funding for sustainability of a service and its workforce.

Western Isles

NHS Western Isles launched their hospital at home service in 2020. They have been successful in implementing the model within a remote and rural NHS board.

Geography

NHS Western Isles is a remote and rural island board. The hospital at home service previously covered the islands of Harris and Lewis only. They have recently expanded to cover Uist, resulting in an additional 20% population coverage.

Staffing and governance

NHS Western Ises currently has no substantive consultant physicians so, in common with other remote and rural healthcare systems, they adapt to use the available workforce to the best effect. This model has been shown to increase admission avoidance and access to the hospital at home beds. This is due to the clinicians' experience in acute care and Realistic Medicine, as well as appropriate risk appetite.

The team plan to expand the workforce substantially over the coming months. They will bring urgent care and acute assessment services together, with the RMO a specialist GP working across hospital at home and the acute assessment unit to create a robust and dynamic 'front door service'. The purpose of this is to increase home assessments, ensure patients are treated in the most appropriate place, and reduce unnecessary admissions to hospital. Developments include introduction of a dedicated pharmacist, specialty nurses (infection, respiratory, cardiac) and administrative and managerial support. As part of the Healthcare Improvement Scotland Focus on Frailty programme, the team also anticipate including a frailty practitioner and frailty support worker.

Hours of operation

The hospital at home service operates between 8am and 10pm, 7 days a week. The wider front door team are available 24 hours a day, 7 days a week, 365 days per year.

Pathways

The service is already treating adults from the age of 18 with a variety of conditions. They deliver intravenous antibiotic treatment (for complex infections) and heart failure services. They hope to expand their capacity for these pathways in the coming months as well as introducing a respiratory specific pathway.

Technology

Western Isles have pioneered the use of capsule endoscopy at home. They currently use the Hospital Electronic Prescribing and Medicines Administration (HEPMA) system for electronic patient records, and they are looking for other ways to improve soon.

The service also uses a variety of at-home diagnostics such as electrocardiogram (ECG) and bladder scanning. They are currently developing the use of POCT.

Integration

The ongoing front door redesign work to integrate urgent care and acute assessment area is a significant project. It has a clear aim to increase direct referrals to hospital at home or result in total admission avoidance where appropriate.

Sustainability

The team have developed an integrated model of dynamic multi-skilled workforce, bringing three successful teams closer together to ensure swift decision-making, care in the most appropriate place and hopefully improved patient and carer journeys. Sustainability is promoted and risk is mitigated under this model, by always ensuring the best use of clinical resource.

Edinburgh City

Geography

The Edinburgh City hospital at home service covers 100% of the HSCP boundary of the city of Edinburgh. Midlothian, East Lothian and West Lothian services provide 100% geographic coverage to the rest of Lothian.

Staffing and governance

The service is consultant-led, with a strong core of medical staff (clinical fellows and specialty doctors) and nursing staff (from clinical support workers to experienced ANPs). Staffing also includes a registered mental health nurse and palliative care specialist nurse.

The core team is supported by a pharmacist, physiotherapist and occupational therapist, alongside admin staff. The team is part of a Lothian-wide oversight group, together with the other Lothian hospital at home services. This group provides assurance that Lothian hospital at home services are person-centred, effective, safe, equitable and meet acute standards of care. The oversight group has been instrumental in developing consistency across all Lothian services. For example, by producing a hospital at home antimicrobial guideline, streamlining the heart failure pathway, and standardising discharge documentation to GPs.

The local management team meet monthly to discuss all service and professional matters. There are daily huddles and quarterly quality improvement meetings.

Hours of operation

The service operates 7 days a week between 8am and 8pm.

Pathways

The team supports both admission avoidance (80%) and early supported discharge (20%). They have developed consistent referral pathways with timely and responsive access to specialist acute assessment.

The service often cares for patients with acute heart failure and respiratory conditions and is currently in discussion with other specialties.

Technology

All staff in the service have access to laptops for patient visits.

Point of care blood testing is also used, particularly for first assessments. Point of care ultrasound is currently being piloted, with the first two staff members currently under training.

Integration

The team has good links with NHS Lothian's Flow Centre. This is the primary pathway for primary care and SAS referrals. Beyond this, there are strong links with most of the GP surgeries within Edinburgh, thanks to previous information initiatives.

The service is working with the Edinburgh respiratory team to see how respiratory patients can get the best care. They have strong links with the acute sites (particularly the Royal Infirmary of Edinburgh) which helps facilitate supported discharges. The team have also worked in partnership with carer support services to identify and support unpaid carers at home as part of Healthcare Improvement Scotland's Unpaid Carer Programme.

Sustainability

Sustainability is only an issue with regards to fixed-term funding for posts. This is currently not an area of concern for this service as the hospital at home team is seen as an integral part of the Edinburgh acute system. Staff development is a key enabler of excellent recruitment and retention.

4.0 Processes and governance

This section expands on the key features of services and draws from the expert advice of clinicians and managers across Scotland. This is information that health and care professionals believe is crucial to the safe and effective development of a service.

Below is a driver diagram which describes the requirements to achieve safe, effective and person-centred hospital at home services.

Figure 4: Driver diagram of the requirements for a safe, effective and patient-centred hospital at home service

We are trying to Which requires... We need... achieve... Defined and agreed referral criteria Interfacing across all health and social care services, Clear third sector organisations and private care providers referral Access to specialist advice and interventions pathways Clear and timely communication between services Links with appropriate services for wider patient cohorts Access to intervention and resources at the point of Home-based delivery of standardised acute assessment Diagnostics support which may include point of care **Effective** processes Frameworks to support decision-making and care planning Robust IT and digital infrastructure Pharmacy system for prescribing, medication access and supply Recruitment which meets regulatory and service A safe, requirements effective and Flexible, adaptable and skilled multi-disciplinary team **Appropriate** Dedicated team base location for coordination of patientworkforce service, transport and equipment storage centred planning Collaborative working Career framework for professional growth and hospital at extended clinical decision-making development home service Commitment to a culture of continuous improvement Named secondary care clinician, usually a consultant, as responsible medical officer **Strong senior** Clear local governance reporting structures leadership and Protocols ensuring safe and consistent working governance Clear lines of responsibility and accountability for reporting and managing risks, adverse events, and performance Realistic Medicine approach Quantitative and qualitative data including patient and **Impactful** staff experience evidence, Involving patient, family, carers and staff in service experience and engagement Recognition of family and unpaid carers as equal activity partners in planning and care Public awareness of the hospital at home model

4.1 Referral criteria

To be eligible for treatment by a hospital at home service, the patient must:

- be referred by their GP or other healthcare professional, SAS, a secondary care hospital emergency department or inpatient unit, or flow navigation centre
- have an acute condition, or exacerbation of a chronic condition that would otherwise require admission to hospital
- have a suitable, safe home environment in which to be treated. This may be the
 patient's own home, a nursing home, a care home, a relative's home or other
 homely setting
- live within the geographic boundaries of a hospital at home service, and
- be willing to be treated at home.

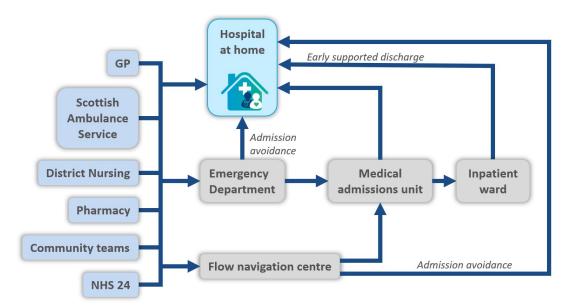
Hospital at home services do not:

- provide routine management of chronic conditions
- manage home births
- treat patients with surgical indications, or
- treat non-acute conditions normally managed by primary care.

4.1.1 Referral pathway

The following is an illustrative example of the referral routes to hospital at home:

Figure 5: Diagram showing referral pathways into hospital at home



Patients who are acutely unwell may present to:

their GP

- SAS
- a pharmacy
- NHS 24
- district nurses or other teams providing care in the community, or
- a hospital emergency department.

These professionals may refer the patient directly to hospital at home, a flow navigation centre or the emergency department (if this is not where they presented).

Healthcare professionals in flow navigation centre or emergency departments can refer patients directly to hospital at home. Patients may also be admitted to the medical admissions unit (MAU) for further assessment. In the MAU, staff may feel assessment and treatment can be delivered at home, so may refer to hospital at home. If ongoing in-hospital care is required, the patient would be transferred to a ward. Once transferred to a ward, the opportunity to utilise hospital at home is not lost. Inpatients can be referred to hospital at home to finish their treatment via the early supported discharge pathway.

Following referral to the service, the hospital at home team make a decision on accepting the patient. Referrals may be rejected if:

- the patient does not meet the referral criteria
- there is another more appropriate service for the patient, or
- the service is at capacity.

4.1.2 Common conditions treated by hospital at home

Figure 6 below shows the 10 most common conditions patients were diagnosed with upon admission to general acute adult hospital at home services in 2024-2025. The most common by far were acute respiratory and cardiac conditions. If data were included for stand-alone heart failure and respiratory services, the proportion of respiratory and cardiac patients would be even greater.¹⁹

Many acute conditions can be managed safely at home, and it would not be practical to provide an exhaustive list. Suitability for hospital at home is also not directly linked to the admission diagnosis. Rather, it is a multidimensional decision based on the patient's:

- presenting and co-existing conditions
- functional ability, and
- social factors such as their living environment, family and carer status.

For example, hospital at home would be inappropriate or unsafe for patients who are unable to eat or drink independently, unable to mobilise safely or to manage their medications, and have no family or carers to help them with these activities. Local

context is also a factor, as staffing and skill mix in the hospital at home team determines the types of patients that can be referred.

% of total admissions 0% 5% 10% 15% 20% 25% 30% Respiratory condition 27% Needs further assessment/Other 13% Heart condition 11% Urinary condition 8% Delirium 6% Metabolic disorder 6% Musculoskeletal condition 6% Infection Gastrointestinal condition Injury 3% Renal condition 3% COVID Influenza 2% Nervous system condition Soft tissue disorder 1% Nausea and vomiting 1% Metabolic disorder 1%

Figure 6: 2024-2025 most common conditions for admission to hospital at home

Some conditions are not suitable for treatment at home. These are mainly conditions which require surgical intervention or intensive care. Examples include lower limb fracture, acute stroke, haemorrhage or acute coronary syndromes.

4.2 What care does hospital at home provide?

Hospital at home services deliver a range of activities and interventions throughout a patient's admission. Particularly valuable is the services' ability to assess patient needs without a known diagnosis. Individual services will vary in what they can offer. For example, adaptations in remote and rural contexts should consider local resources and infrastructure.

The activities described in this section are based on the literature as well as information from services across Scotland.⁷ The list is illustrative rather than exhaustive.

4.2.1 Standardised acute assessment

Complying with acute care standards involves replicating many of the acute assessments ordinarily conducted in hospitals. These will include some or all the following:

Taking clinical history

- Physical examination
- Medicines reconciliation
- Functional and cognitive assessment
- Assessment of family and carer support and social environment
- Review of treatment escalation and future care plans
- Assessment screening tools, for example:
 - National Early Score (for example NYHA for heart failure patients)
 - Falls risk Warning Score (NEWS)
 - Malnutrition Universal Screening Tool (MUST)
 - 4AT Delirium assessment tool
 - Geriatric Depression Scale (GDS)
 - Glasgow Coma Scale (GCS)
 - Waterlow score
 - Clinical Frailty Score
 - Cognitive Assessment Tests (for example ACE III or MOCA)
 - Disease Severity assessment

4.2.2 Diagnostics

Patients managed by hospital at home require access to diagnostics with the same priority as if they were a hospital inpatient. Some services are also able to conduct point of care blood testing and ultrasound. Healthcare Improvement Scotland produced a guide to POCT for hospital at home services in 2025. This guide was made available to services as part of the learning system.

Examples of diagnostic tests include:

- urgent blood tests
- 12 lead ECG
- cardiology investigations, including 24-hour ECG
- ultrasound bladder
- respiratory investigations, including pulmonary function tests
- endoscopy
- radiological tests (including plain x-ray, ultrasound, CT and MRI scanning), and
- microbiology tests, including blood, urine, sputum, stool and wound culture, viral screening.

4.2.3 Processes that support effective decision-making and care planning

Routine processes of care can be captured in SOPs and clinical guidelines for staff. The following procedures should be captured.

- Processes for capturing and acting on the person's wishes ('what matters to you?')
 and goals of care.
- Triage risk assessment of patient acuity and goals of care:
 - Can the assessments, investigations and treatment they require be safely delivered at home?
 - Do they need acute hospital admission?
- Daily secondary care level discussion and decision-making by the team, with tailored management plans. Timely access to advice and input from other specialties when required are also essential. This should be given the same priority as hospital inpatients.
- Consent and a clear plan for the management of escalating needs. Clinical
 decision-making will identify that some patients may require hospital admission. A
 clear pathway is necessary for these patients so that their care is not
 compromised. This requires robust communication with acute hospital colleagues.
- Ensuring clearly defined plans are available to all involved in a patient's care. This should include what should happen in an emergency, or out of hours.
- Simple, clear information leaflets that explain the service and contact details for patients and families are essential.
- The development and use of future care planning where appropriate.
- Immediate discharge communication to GPs and other healthcare professionals.
 This is essential to avoid confusion during transitions of care. Handover should include what changes have been made to medication and any outstanding issues that need to be addressed.
- A clear process for follow-up, onward referrals and outpatient investigations. This includes a mechanism to ensure results are fed back to patient and GP.

4.2.4 Interventions and point of care support for managing people at home

Hospital at home services do not use large amounts of hospital equipment but will access the following as required depending on service structure and context:



Point of care blood testing

can be undertaken using portable diagnostic machines that can be carried into the patient's house. These use a drop of blood to run a limited analysis. They can enable rapid diagnosis and treatment decisions and avoid unnecessary subsequent visits.



Point of care ultrasound

can allow on the spot diagnoses following appropriate training.



Oxygen. Portable oxygen concentrators can be crucial in the management of acute respiratory problems and can be carried by hand.



Nebulisers as inhaled therapy for acute exacerbation of asthma or COPD can be potentially delivered urgently and reused.



Medicines. The service could have minimal stock in place for emergency use, such as immediate IV fluids, IV antibiotics or oral antibiotics. Keeping small stocks avoids the overheads related to the purchase, storage and governance of medicines.



Intravenous therapies

including intravenous fluids, antibiotics, diuretics and other medications can be given to patients at home.



Specialist referral (such as respiratory, cardiology, palliative care as appropriate).



Early AHP therapy intervention can be crucial to intervene and prevent functional decline. This can prevent unnecessary hospital or care home admission.



Equipment to support activities of daily living

such as commodes and zimmer frames. These should be available for immediate delivery where possible.

4.3 IT and digital infrastructure requirements

Hospital at home services should be supported by a robust IT infrastructure to enable an acute level of care to be delivered safely and efficiently in the community and sometimes remotely. Hospital at home should also have administrative capabilities equivalent to that of acute hospitals. The following technology should be considered to support the operation of the service:



Patient admission episodes

need to be recorded on patient management systems in order to be visible and capture patient data for ISD recording.



IT hardware solutions. Must be

usable in a patient's house or clinical setting and provide access to hospital systems, as well as the potential for electronic record keeping in the



Software solutions.

Allow management of staff, electronic record keeping and task or workflow management.



Video conferencing (such as Attend Anywhere or NHS Near Me). Enables remote consultations with patients, discussions with

families and staff meetings.

Remote monitoring. Devices that continuously measure

future.

pulse, temperature, oxygen saturations, blood pressure, movement, and posture and relay data wirelessly to a central system. Allows close supervision of high-risk patients and frees up valuable clinician time.



Lone worker safety device (such as

Identicom). Promotes safety of hospital at home staff while working independently in and between patients' homes.

4.4 Workforce requirements for hospital at home

The design and delivery of health and social care services is context specific. It requires detailed planning and commissioning to ensure that the workforce achieves the following.

- Meets regulatory and service requirements.
- Is flexible and adaptable across 7 days to deliver safe and effective care. This
 ensures that a patient receives the right care from the right person at the right
 time. Where hospital at home services are not yet operational across 7 days,
 collaboration with out-of-hours primary care, community nursing or other services
 may be required to ensure patient safety.
- Works collaboratively with the full range of primary and community care services. This maximizes the efficient use of local expertise to meet local population need.
- Meets demands relating to travel, equipment, medication, and other admin and logistics. These demands are different in hospital at home compared to conventional hospital services. Recruitment of administrative and project support staff should therefore be prioritised alongside clinical roles. Administrative and project support staff will also be required for:
 - Timely communication between the hospital at home team, primary and community care workers, and other services. This contact may be before, during and after treatment.
 - Implementation of POCT and other improvement initiatives. Such projects
 need a significant amount of preparation and documentation to be completed.
 Project staff are necessary to navigate governance and procurement
 processes.
 - Data collection and analysis.
 - Non-clinical administrative duties. For example, admitting or discharging patients on clinical systems, managing correspondence, co-ordinating appointments and arranging transport. This list is not exhaustive.

The specialist and acute nature of hospital at home requires a workforce with the skills, competencies and confidence to manage acutely unwell patients safely at home. Patients should receive comprehensive clinical assessment equivalent to that provided in hospital. To meet acute standards, care needs to be specialist-led with a secondary care clinician or consultant as the named RMO. The team must also be multidisciplinary. Staff can include other medical roles, nurses, AHPs, paramedic practitioners, pharmacists and clinical support workers. The team should have a range of clinical assessment and decision-making skills which contribute to optimal patient care.

Hospital at home clinicians conducting first assessments of new referrals will be required to develop extended clinical and decision-making skills. This includes the ability to undertake:

- clinical assessment, including a risk assessment of whether the patient can be managed safely at home
- functional, cognitive and mobility assessment

- assessment of family support and social environment
- diagnostics such as bloods and ECG, and being able to interpret these
- defining an initial diagnosis and implementing an immediate treatment and management plan
- discussion of patient-centred goals of care, appropriate treatment escalation and anticipatory care plans
- medicines reconciliation
- prescribing and administration of necessary medications, including intravenous treatment if required
- practical procedures such as cannulation, catheterisation, and wound care
- requesting appropriate investigations and liaising with other specialties/teams as required, and
- clear documentation in patients' clinical notes, with effective communication and handovers to the wider team.

The development of staff to deliver this model of care requires a career framework. This can be used to plan, develop and grow skills and behaviours to enable a competent, capable workforce. The framework should address the development of all levels of staff. Standards of clinical knowledge and skill are required to match those of acute inpatient care for medical and non-medical practitioners alike. Formal accreditation is required for achieving higher levels of practice, such as advanced practitioner roles or non-medical prescribing qualifications.

Competencies to support acute care have been developed across the hospital at home teams and provide an educational and training framework. Higher education institutions in Scotland now provide this as part of their advanced practice courses. The Hospital at Home Knowledge and Skills Development Framework is available on the NHS Education for Scotland website. It can be used to support HCSWs, nurses, and AHPs. It supports them to access information, guidance, and resources, alongside a professional development framework for their roles in hospital at home. The case study below provides an insight into the decisions, interventions, and scenarios that an advanced nurse practitioner working for a hospital at home service might encounter.

Examples of advanced practice in hospital at home: Edith's story

Staff at the care home where Edith lives alert the GP that she is lethargic and withdrawn. A urine sample requested by her GP shows an E.coli infection. Due to vomiting she is unable to keep her oral antibiotics down, so the GP refers her to hospital at home. The decision for referral is made after consulting her future care plan which states a preference for care in the home where possible.

When the call is received, Sarah, an ANP, responds as part of the hospital at home team. Edith is very sleepy, so Sarah takes a comprehensive collateral



history from the care home staff. She also conducts a clinical examination including NEWS assessment, blood tests, and an electrocardiogram. Sarah reviews Edith's medications and suspends any non-essential drugs and those which could be contributing to Edith's vomiting and deteriorating kidney function. At the same time, she notices that Edith is only using a walking stick and seems unsteady, so she orders her sturdier equipment. Sarah confirms a treatment escalation plan with the care home staff and Edith's son, agreeing to provide acute care in the home. They agree that if Edith were to deteriorate further, the focus would then be on managing her symptoms palliatively. This decision is made in line with the 'do not attempt cardiopulmonary resuscitation' agreement Edith has in place.

Sarah returns later that day once blood test results are available. She administers the appropriate dose of intravenous gentamicin and changes the urinary catheter. Edith's case was discussed at the consultant-led ward round that afternoon. Further advice on medicines rationalisation was given which Sarah implements at this visit.

Over the next few days, Edith looks progressively brighter and is managing to eat and drink more. She is still struggling to pass good urine volumes so the care home staff encourage her to drink more water. Her progress is discussed daily at the hospital at home virtual ward round.

By the fourth day, she looks much improved. Her mobility is better, and she's moving about her room on her zimmer frame. Sarah has been visiting her daily to take blood tests which are showing improvements in renal function and inflammatory markers. The care home staff and her son are happy that she is almost back to normal, so she is discharged from hospital at home. A discharge letter is sent to her GP with a summary of her acute illness, treatment, and medication changes.

4.5 The role of leadership

There is strong evidence that the behaviour of leaders plays a key role in either enabling or hindering organisational change.^{26, 31, 32}

Hospital at home thrives when there is strong leadership with mature, trusting relationships across teams and sectors. Furthermore, the role of clinical leaders in securing clinical engagement from the workforce and senior clinicians in interfacing services is essential. It is not enough for leaders of hospital at home to be visible to their teams and networks. They must also encourage clinical engagement through direct two-way communication. Leaders must empower their workforce to do things differently, by providing appropriate support and building trusting relationships.

Services also need to have clear lines of responsibility. There must be a named secondary care clinician, competent in managing acute medical presentations, acting as RMO. This is usually a consultant. This is recommended by the <u>General Medical Council</u> and <u>Academy of Royal Medical Colleges</u>. Other medical staff such as resident doctors, specialty doctors, and GPs with special interests are valuable members of a hospital at home service. The RMO is responsible for leading the multidisciplinary hospital at home team in delivering appropriate acute interventions and care.

A key role for senior leaders is to create the conditions for transformational change. This requires collective leadership across sectors, to establish a culture of collaboration focused on local population need. Organisational development support for the creation of new ways of working and the promotion of human factors and non-technical skills can be a key enabler.

4.6 Governance arrangements

Developing and implementing hospital at home services requires a governance structure at Integrated Joint Board and NHS board level that gives reassurance to clinicians and managers around new ways of working and extends support for front line decision-making. In addition, there needs to be managerial support for financial governance, service sustainability, staff governance and service planning. This may involve more complex whole system planning that encompasses investing to save, whether in bed rationalisation or service reconfiguration. In order to run a safe and effective hospital at home service, the following should be in place:

- Service protocols or SOPs to ensure safe and consistent working. These should cover:
 - triage
 - clinical assessment and decision-making
 - senior medical input and interface with specialists, either in-person or remotely

- diagnostics and prescribing
- care and support
- review (including the daily ward round or MDT meeting), and
- specific hospital at home protocols or guidelines, for example for short-term oxygen treatment, antimicrobial guidelines.
- A commitment to support continuous professional development and learning. This
 can be:
 - a regularly structured hospital at home teaching programme
 - support for staff to undertake additional qualifications such as advance practice modules or non-medical prescribing qualifications
 - facilitating staff attending regional and national learning events, and
 - the use of Morbidity and Mortality meetings or Schwartz rounds to learn from things that have gone well, as well as those that have not.
- Efforts towards creating a culture of improvement. This can be achieved through regular team-wide review of performance, processes and data. Teams should have clear goals and strategies for improving efficiency and expanding the service.
- Clear process for gathering and responding to feedback from patients, families, referrers and other stakeholders that interface with hospital at home.
- Looking after staff and team wellbeing. This work can be challenging so there should be a regular appraisal process for all members of the team. This should be used to provide tailored support and plan development.
- Clear accountability for preventing and responding to risks, adverse events and performance reporting.
- A supportive culture for innovation that allows testing, adaptation and development.
- Clear links to local governance reporting structures.
- A realistic medicine approach that puts person-centred care and shared decisionmaking at the heart of care planning from the outset.

4.7 Equality in hospital at home

Providing acute, hospital-level care in a person's home may present new considerations regarding equality. In the UK, the Equality Act (2010) protects people based on the following protected characteristics:

- age
- disability
- gender reassignment
- marriage and civil partnership

- pegnancy and maternity
- race
- religion or belief
- sex, and
- sexual orientation.³³

It is important for teams to note that hospital at home is a unique concept. Considerations may be needed which have not previously been relevant to acute hospital care or non-acute services delivered in patients' homes. Teams should carefully consider whether their service design could have a disproportionate impact on anyone based on the above characteristics. This should include impacts for all who experience hospital at home services including patients, their families and unpaid carers.

Teams should contact their local board equality and diversity department for more information and to complete an equality impact assessment (EQIA).

4.8 Measuring impact

The performance of hospital at home services must be measurable, visible and accountable. Data capture should be consistent across Scotland. This is important to facilitate quality improvement and provide assurance that the service is providing highly reliable, safe, effective care.

The following measures should be collected regularly. New services and services undergoing a change may wish to monitor weekly. Stable, established services might monitor monthly or quarterly.

Service delivery measures				
Minimum performance	Average number of patients on caseload per day			
indicators Used to understand how a	Total number of patients admitted			
service is contributing	Average length of stay			
towards flow in unscheduled	Total overnight bed days			
care.	Total number of patients removed from caseload			
	Total number of patients transferred to hospital			
Recommended	Maximum number of patients on caseload in a single day			
performance indicators Used to drive improvements	Total number of rejected referrals			
in flow as part of an unscheduled care system.	Number of rejected referrals segmented by reason for rejection (Insufficient capacity, did not meet criteria, etc)			
These measures may be	7-day re-admission rate to hospital or hospital at home			

Service delivery measures			
used less frequently than the minimum performance	Percentage of NHS board (or HSCP) population within geographical boundary of hospital at home service		
indicators. They may be most useful when the service is focusing on a	Number of admissions segmented by referral source (GPs, SAS, etc.)		
specific improvement.	Percentage of admissions from admission alternative pathways		
	Percentage of admissions via supported discharge from hospital		
	Number of onward referrals to other services segmented by service (district nursing, community rehab teams, mental health, social work, etc.)		
Recommended quality of care indicators Used to understand and	Qualitative summary of patient and carer feedback. Feedback should also be captured from GPs, and other referrers and stakeholders		
drive improvements in quality of care.	Number of complaints		
quanty of care.	Mortality rate within 7 days of discharge		
	30-day re-admission rate to hospital or hospital at home		
	30-day mortality rate		
	Percentage of patients still at home or homely setting 30 days after discharge		

Operational management measures				
Minimum	Projected end of year spend against budget			
Used to manage financial and staff resources within a	Vacancy rate			
service.	Sickness rate			
	iMatter team score			
	Percentage of team core competency complete			
Recommended	Percentage of budget from recurring baseline funding			
Used to plan and improve the management of	Staff turnover rate			
	Days lost to absence			
Used to plan and improve	Percentage of team core competency complete Percentage of budget from recurring baseline funding Staff turnover rate			

financial and staff resources within a service.	Percentage of staff available for work, calculated as whole time equivalent (WTE). Subtract WTE lost through sickness, vacancy, other leave, etc. from the planned WTE.
	Progress with delivering iMatter action plan

Clinical governance measures				
Minimum	Clinical Risk/Significant Adverse Event Reviews			
Used to gain assurance on clinical governance.	Quality – Excellence in care			
-	Complaints, compliments, incident reports			
	Prescribing audits			
	Risk assessment audits			
	Compliance with SOPs			
	Compliance with clinical guidelines			

Public Health Scotland are working towards an expanded national data set across all types of hospital at home services. They aim to start routine publications from 2026.

5.0 Maturity

Through working with boards and HSCPs to develop hospital at home services, Healthcare Improvement Scotland have developed a set of maturity criteria. The maturity of a service is positively linked to its ability to sustain itself in a healthcare system under pressure.

5.1 Maturity criteria

There are nine maturity criteria by which hospital at home teams should assess their service:

1. Established model of secondary care specialist/RMO oversight

To meet this criterion, the hospital at home service will have a dedicated secondary care specialist that acts as RMO for the service. The patients that are treated by the service may have different RMOs for their individual care, but the oversight of the service is consistent.

2. Fully functioning MDT

To meet this criterion, the service will be comprised of a range of roles that

enable the service to provide holistic care and facilitate shared decision-making. The makeup of the service will vary from one board or HSCP to another. In some areas, roles such as pharmacy and AHPs may not be part of the core team, but input can be accessed immediately when required. In such cases, this criterion is met. Staff will also work to the top of their competency levels.

3. Developed referral pathways from both community and acute services

The service provides an alternative to hospital admission for referrals from the community (for example primary care, SAS and other community services) as well as offering supported discharge from the acute hospital.

4. Consistent access to speciality input where required

To meet this criterion, services should be able to access real time input from other specialties regarding patient diagnosis and treatment. For example, for a patient with heart failure, the service can seek advice from a cardiologist or heart failure specialist to inform the patient's treatment plan, without the patient having to be transferred to another ward.

5. Training and development of staff

The service has a framework for teaching, training and professional development of all staff members.

6. Defined clinical governance structure

To meet this criterion, the service will undertake regular activity and performance reviews, mortality and morbidity reviews, and have a mechanism for reviewing significant adverse events.

7. Capacity and capability for data collection and quality improvement within the team

To meet this criterion the service will have dedicated time for staff to focus on improvements to service delivery. The service will also be supported by colleagues that can facilitate quality improvement work and data collection.

8. Equitable access to hospital at home service for all patients within the NHS board/HSCP area

To meet this criterion, services offer equitable access to hospital at home for all patients regardless of where they live within the board or HSCP area.

9. Recurring investment from NHS board/HSCP/Scottish Government

This criterion relates to the funding source and economic sustainability of the hospital at home service. To meet this criterion, the posts that make up the hospital at home service will be permanent dedicated roles for hospital at home.

6.0 Tools and resources

Healthcare Improvement Scotland is developing a web-based resource to support the implementation of hospital at home. The resources will be published on our website at www.healthcareimprovementscotland.scot. Publication will take place at the end of 2025.

A UK-wide Hospital at Home Society launched on 5 March 2020. The Society supports the development of specialist acute care through hospital at home, shares best practice and contributes to the evidence base. Their website is available at www.hospitalathomeuk.org.uk.

Resources are also available on the World Hospital at Home community website https://whahc-community.kenes.com/.

In summer 2025, Healthcare Improvement Scotland launched an expanded National Hospital at Home Programme for NHS boards interested in developing or improving hospital at home services. Support was expanded to include respiratory, heart failure, and paediatric hospital at home. Support for parenteral antibiotic therapy was also included, if treatment is delivered at a person's home or homely setting as part of a hospital at home service. This work aligns with and complements Scottish Government's aim of 2,000 hospital at home beds by December 2026. The key objectives of the programme are to:

- Share evidence and best practice
- Increase the pace of implementation through tailored improvement support
- Enable measurement of progress and evaluation of impact, and
- Facilitate learning and connections locally and nationally

Resources from activity in this programme are available on the Healthcare Improvement Scotland Hospital at Home Community Forum on Microsoft Teams. This is available to NHS Scotland colleagues involved in delivering hospital at home services. For ease of access, resources have been filed into sections: your team, planning your service and running your service. The Microsoft form to join this channel is available at the following link: registration form, Hospital at Home Community Forum

Bibliography

- Edgar K, Iliffe S, Doll HA, Clarke MJ, Goncalves-Bradley DC, Wong E, et al. Admission avoidance hospital at home. Cochrane Database Syst Rev. 2024;3(3):CD007491.
- 2. Wallis JA, Shepperd S, Makela P, Han JX, Tripp EM, Gearon E, et al. Factors influencing the implementation of early discharge hospital at home and admission avoidance hospital at home: a qualitative evidence synthesis. Cochrane Database Syst Rev. 2024;3(3):CD014765.
- 3. Dismore LL, Echevarria C, van Wersch A, Gibson J, Bourke S. What are the positive drivers and potential barriers to implementation of hospital at home selected by low-risk DECAF score in the UK: a qualitative study embedded within a randomised controlled trial. BMJ Open. 2019;9(4):e026609.
- 4. Chua CMS, Ko SQ, Lai YF, Lim YW, Shorey S. Perceptions of Hospital-at-Home Among Stakeholders: a Meta-synthesis. J Gen Intern Med. 2022;37(3):637-50.
- 5. Wong A, Cooper C, Evans CJ, Rawle MJ, Walters K, Conroy SP, et al. Supporting older people through Hospital at Home care: a systematic review of patient, carer and healthcare professionals' perspectives. Age Ageing. 2025;54(2).
- 6. Office for National Statistics. National population projections: 2022-based 2022 [updated 28 January 2025 Oct 2025]. Available from:

 https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/nationalpopulationprojections/2022based
- 7. Harding S. Comprehensive geriatric assessment in the emergency department. Age Ageing. 2020;49(6):936-8.
- 8. Smith TO, Sreekanta A, Walkeden S, Penhale B, Hanson S. Interventions for reducing hospital-associated deconditioning: A systematic review and meta-analysis. Arch Gerontol Geriatr. 2020;90:104176.
- 9. Basic D, Ni Chroinin D, Conforti D, Shanley C. Predictors on admission of functional decline among older patients hospitalised for acute care: A prospective observational study. Australas J Ageing. 2017;36(4):E57-E63.
- 10. Van Craen K, Braes T, Wellens N, Denhaerynck K, Flamaing J, Moons P, et al. The effectiveness of inpatient geriatric evaluation and management units: a systematic review and meta-analysis. J Am Geriatr Soc. 2010;58(1):83-92.
- 11. Healthcare Improvement Scotland. Ageing and frailty standards. 2024.
- 12. Echevarria C, Brewin K, Horobin H, Bryant A, Corbett S, Steer J, et al. Early Supported Discharge/Hospital At Home For Acute Exacerbation of Chronic Obstructive Pulmonary Disease: A Review and Meta-Analysis. COPD. 2016;13(4):523-33.
- 13. Qaddoura A, Yazdan-Ashoori P, Kabali C, Thabane L, Haynes RB, Connolly SJ, et al. Efficacy of Hospital at Home in Patients with Heart Failure: A Systematic Review and Meta-Analysis. PLoS One. 2015;10(6):e0129282.
- 14. Bosman JB, Jager FJP, Badings EA, van Wijngaarden J, Jansen Klomp WW. Hospital-at-Home care for acute heart failure: Feasibility and safety pilot. Neth Heart J. 2025;33(5):157-62.
- 15. Rodríguez O, Fernández S, Ortín JA, Aibar J, Seijas N, Orquin A, et al. Hospital at home for acute decompensation of chronic heart failure. A series of 201 patients. European Journal of Internal Medicine. 2013;24:e26.

- 16. Sanchez Marcos C, Espinosa B, Coloma E, San Inocencio D, Pilarcikova S, Guzman Martinez S, et al. Safety and efficiency of discharge to home hospitalization directly after emergency department care of patients with acute heart failure. Emergencias. 2023;35(3):176-84.
- 17. Boriani G, Da Costa A, Quesada A, Ricci RP, Favale S, Boscolo G, et al. Effects of remote monitoring on clinical outcomes and use of healthcare resources in heart failure patients with biventricular defibrillators: results of the MORE-CARE multicentre randomized controlled trial. Eur J Heart Fail. 2017;19(3):416-25.
- 18. Morgan JM, Kitt S, Gill J, McComb JM, Ng GA, Raftery J, et al. Remote management of heart failure using implantable electronic devices. Eur Heart J. 2017;38(30):2352-60.
- 19. Healthcare Improvement Scotland. Hospital at Home services annual report: July 2025. 2025 23 July 2025.
- 20. Scottish Government. Health and Social Care integration: progress review. 2019 4 February 2019.
- 21. Public Bodies (Joint Working) (Scotland) Act 2014, Stat. ASP 9 (2014).
- 22. Scottish Government. NHS Scotland operational improvement plan. 2025 31 March 2025.
- 23. Scottish Government. Health and Social Care Service Renewal Framework. 2025 17 June 2025.
- 24. Scottish Government. Realistic Medicine: Taking Care. 2024.
- 25. Scottish Government. Delivering Value Based Health & Care: A Vision For Scotland. 2022.
- 26. The Kings Fund. Making the case for quality improvement: lessons for NHS boards and leaders. . 2017.
- 27. Scottish Government. GMS contract: 2018. 2017 13 November 2017.
- 28. Carers (Scotland) Act 2016, (2016).
- 29. Healthcare Improvement Scotland. Hospital at Home: Scoping report into dementia and care homes. 2025 23 July 2025.
- 30. Public Health Scotland. Health Board (2019) Population Estimates. In: NHS Scotland, editor. 2019.
- 31. Healthcare Improvement Scotland. Excellence in Care framework. 2025.
- 32. Scottish Government. Delivering Quality Through Leadership: NHS Scotland Leadership Development Strategy. 2010 5 January 2010.
- 33. UK Government. Equality Act 2010: guidance. 16 June 20152013.

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