

Virtual wards: bringing the hospital home



healthcare at home
it's where you want to be

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Foreword

by James Featherstone Ph.D
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Healthcare at Home Ltd.

In October 2014, it was estimated that if hospital admission rates continue to increase at their current rate, our growing population will require an additional 6.2 million bed days or 17,000 beds by 2020.¹

As NHS trusts receive almost daily missives from the regulators with demands to cut costs, improve their productivity forecasts and be prepared for closer scrutiny, the patient feels ever-more distant. In fact, the tougher the economic message, the harder it is to see where the patient fits in. "Cash is king once again," lamented a group of NHS Chief Executives recently to the HSJ.²

Cutting bed occupancy rates by reducing length of stay and increasing capacity elsewhere in the system with community or home-based care models are recurring themes in government and NHS England initiatives. Some have argued that there is insufficient evidence of this being achieved at the scale and pace required to keep abreast of growing demand.

This is perhaps unsurprising given that out-of-hospital care models such as Recovery at Home are relatively new. But perhaps we have not truly understood how best to assess the value of homecare. If we look at the benefits being driven by the 21 NHS pioneers of virtual wards (as we do on page 14), we can see the beginnings of a compelling evidence base.

As the NHS and wider health and care system seems increasingly untenable in its current format, perhaps we should remind ourselves why most of us started working in healthcare in the first place: to care for people and to make a difference. Every patient is not the same but every patient is a consumer. Quality and choice should be at the heart of every service provider agenda.

If we go back to basics and put the patient at the heart of every conversation, every initiative, every care plan or pathway, we can start to design a system that is fit for today's patient and tomorrow's population. We can do it in an integrated way that delivers higher productivity and clinical excellence, and in an accountable, cost effective model.

Recovery at Home, supported discharge, Admission Avoidance: it is almost as hard to imagine a system without these schemes as it is to imagine one without hospitals.

1

Creating capacity

Our 2013 report looked at how large-scale adoption of virtual wards could impact the capacity issue across the NHS. This report updates on the adoption of these services, outlines the value and details how to get started.



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“ Recovery at Home is a wonderful scheme for patients. It gives a sense of security and peace of mind knowing they do not have to stay in hospital longer than necessary. ”

Recovery at Home patient, Queen Elizabeth Hospital, Birmingham

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In our 2013 report *Addressing the hospital capacity problem: The Recovery at Home solution*, we looked at how the large-scale adoption of virtual wards, often referred to as Recovery at Home services, could create 5,800 virtual beds nationally.

These beds – estimated to be about 40 per trust³ – would operate as a virtual ward, expanding the capacity of hospital services without increasing capital expenditure or the number of inpatient beds. Patients, still under the clinical supervision of specialists and governance within the trust, would continue their care at home until discharge.

Two years on, and mindful of the challenges laid out by NHS England in the *Five Year Forward View*, this latest report reviews progress of these services and the extent to which virtual wards are being used to help NHS organisations manage escalating demand.

The capacity issue

Hospitals across the country are under pressure from rising numbers of admissions year round. Although commonly referred to as winter pressures, the hospital capacity issue dominates throughout the year.

While there continues to be an acute problem in A&E, where waiting time targets have been missed for the last 18 months,⁴ capacity issues are further exacerbated by readmissions, cancelled operations and referral-to-treatment times (RTT) targets.

More people are living with co-morbidities than ever before. As the population increases and ages, this puts a further strain on resources as care is required throughout the time the person is ill. Long-term solutions need to be found to increase capacity while keeping costs down and ensuring patient outcomes are high.

The 2013 report set out the theory behind Recovery at Home and its potential to free capacity and release costs. Here we look at how and where acute care alternatives have evolved into virtual wards to also offer admission avoidance; at the evidence that is emerging from virtual wards across the country; and at how scaling up this model of care could create a sizeable 'virtual hospital'.

NHS England's Five Year Forward View

The NHS's five-year plan, published in October 2014, set out the challenges facing the NHS and called for a radical rethink of public health and health provision. This included:

- Supporting local health communities to choose from a small number of radical new care delivery options, including integrated out-of-hospital care.
- Breaking down the barriers in how care is provided between GPs and hospitals, and health and social care.
- Shifting investment from acute to primary and community services.
- Encouraging local flexibility, new options for the workforce and better health technology through research and innovation.

2

The virtual ward

Recovery at Home and Admission Avoidance services allow patients to receive complex clinical care in their home, rather than as inpatients in a hospital. For these systems to create capacity at scale, they are run as a virtual ward. While care is provided at home by a multi-disciplinary team, the patient remains under the clinical responsibility of the hospital consultant or GP.



What is a virtual ward? It is a service that creates capacity in the system without increasing inpatient beds, by treating people in their own home or usual place of residence. This typically involves helping people leave hospital earlier or avoid hospital admission in the first place.

A patient's stay on a virtual ward should be time limited as the service provides acute care in patients' homes with care planning and monitoring by either an acute consultant or GP.

Virtual wards support integrated care models by allowing hospital consultants and GPs to retain clinical responsibility for the patient – undertaking their care planning and monitoring – while nurse-led multi-disciplinary teams provide the care. Each virtual ward is different and is co-designed with hospitals or clinical commissioning groups (CCGs), local clinicians, managers and representatives from partner organisations. Process and clinical pathways are designed specifically at each site to meet the needs of the patient and the organisations, while complementing existing models of service delivery.

There are two main streams of services provided under the virtual ward umbrella:



Recovery at Home: Step down

This service provides acute care to patients in their own home, enabling them to leave hospital earlier while remaining under the care of their hospital consultant.

Each specialty has a service designed with the hospital clinical teams to ensure that co-ordination happens throughout the Recovery at Home service. This frees beds and releases capacity earlier than would ordinarily have been expected, while focusing on delivering excellent patient outcomes and experience. Patients remain under the care of the hospital consultant, who defines an acute care plan ahead of transfer to home and is responsible for monitoring patient progress and adapting the treatment plan as necessary. Monitoring can be done through the review of clinical notes, which are uploaded into hospital EPRs, or in a number of other ways including a virtual ward round, phone calls with the patient and staff, and face-to-face patient reviews in clinics.

More than 30 clinical pathways have been developed and treatments include IV and subcutaneous medication and therapy, monitoring and review, physiotherapy and occupational therapy, rehabilitation, complex wound care, drain and catheter care, anti-coagulation management, collections of specimens, pre- and post-procedural care and discharge to assess pathways for social care and continuing healthcare.



Admission Avoidance: Step up

Under this model, patients remain under the care of their registered GP or the GP consortia that has been established to manage a virtual ward. Wherever possible, an assessment is carried out within two hours of referral, and interventions are implemented rapidly to ensure hospital attendance and admission can be avoided.

Referral into the service can come from GPs or out-of-hours GP services as well as ambulance teams, matrons and emergency department consultants if a patient can be assessed, referred and discharged within the four-hour target.

Patients typically supported by Admission Avoidance schemes are those with exacerbations of long-term conditions, people presenting with ambulatory emergency care conditions or people in care homes who may be dehydrated or have low-level infections.

30+

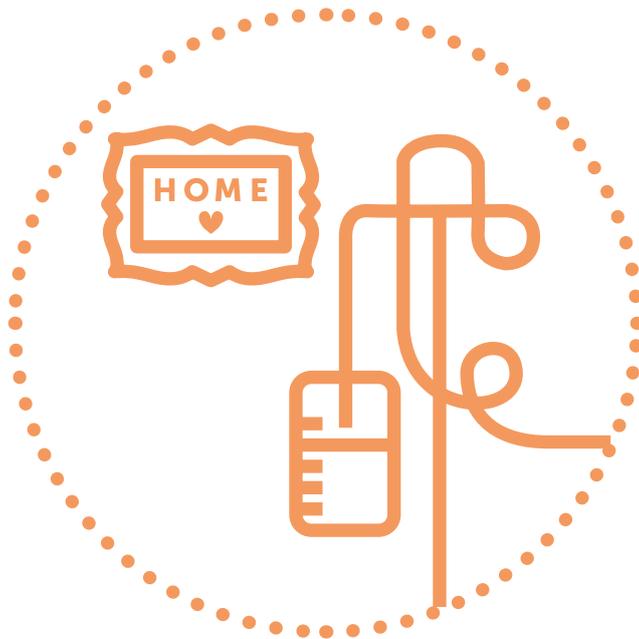
Recovery at Home
pathways developed

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“The virtual ward is about co-design. Throughout the process we worked with Healthcare at Home to create a Recovery at Home service that both supported our patients, offering them a choice in the delivery of their care, and suited our needs as a trust. As clinical homecare was a new option for the clinicians and the patients, we had to work to demonstrate the value of the option. Now that it is up and running, we have released capacity for the trust and provided our patients with choice. Following positive evaluations, the trust board supported further expansion of the virtual capacity.”

Mike Quinn, General Manager, Portsmouth Hospitals NHS Trust

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Care Bureau

Supporting both the Recovery at Home and Admission Avoidance services is a single point of access for patients and their care teams; in Healthcare at Home's case this is the Care Bureau. This provides clinical and administrative support 24/7, 365 days a year including triage, care co-ordination and referrals. It provides a direct link and single point of entry for the patients and carers, hospital consultants, GPs, transfer co-ordinators, nurse teams and therapists, and is supported by a single electronic patient record.

Defining features of a virtual ward

Patients have a personalised agreed care plan before treatment starts

- Before a patient is registered onto a virtual ward, the referring clinical team, the homecare team and the patient agree a full, personalised care plan. This means the patient knows exactly what is going to happen and when.

Clinical responsibility is retained by the referring clinician

- All patients who are on the virtual ward are still under the clinical supervision of the referring clinician. Although the care is provided by the homecare team, the virtual review of the patient data and clinical information is by the referring clinical teams.

There is joint agreement around operational process

- A detailed operational manual is developed for each service. The operational manual provides a generic description of how to use the service and is managed, owned and updated by the multi-disciplinary team. Working at more granular levels, detailed clinical pathways can be developed to help manage particular conditions, procedures or niche specialty interventions.

Patients are supported 24/7 by a dedicated Care Bureau

- The Care Bureau is staffed by qualified nurses and offers round-the-clock telephone support for patients, families and health professionals. It provides care co-ordination as well as clinical triage, emergency advice and the instigation of urgent care and medical advice.

Care is integrated with social care and local community services

- Patients complete their acute care pathway at home and are discharged to other services as required in their discharge plan. This transition is made as seamless as possible with planning and co-ordination with social care and other local services.

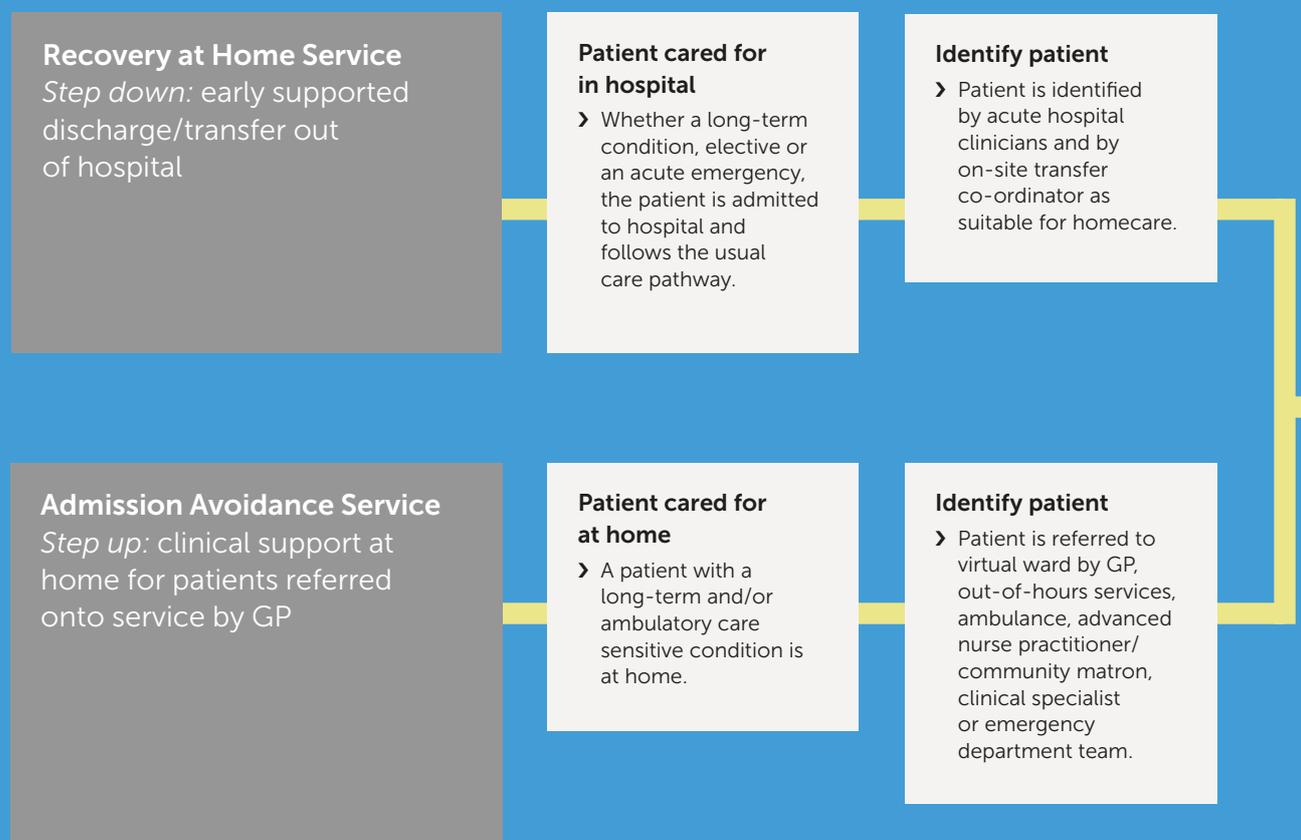


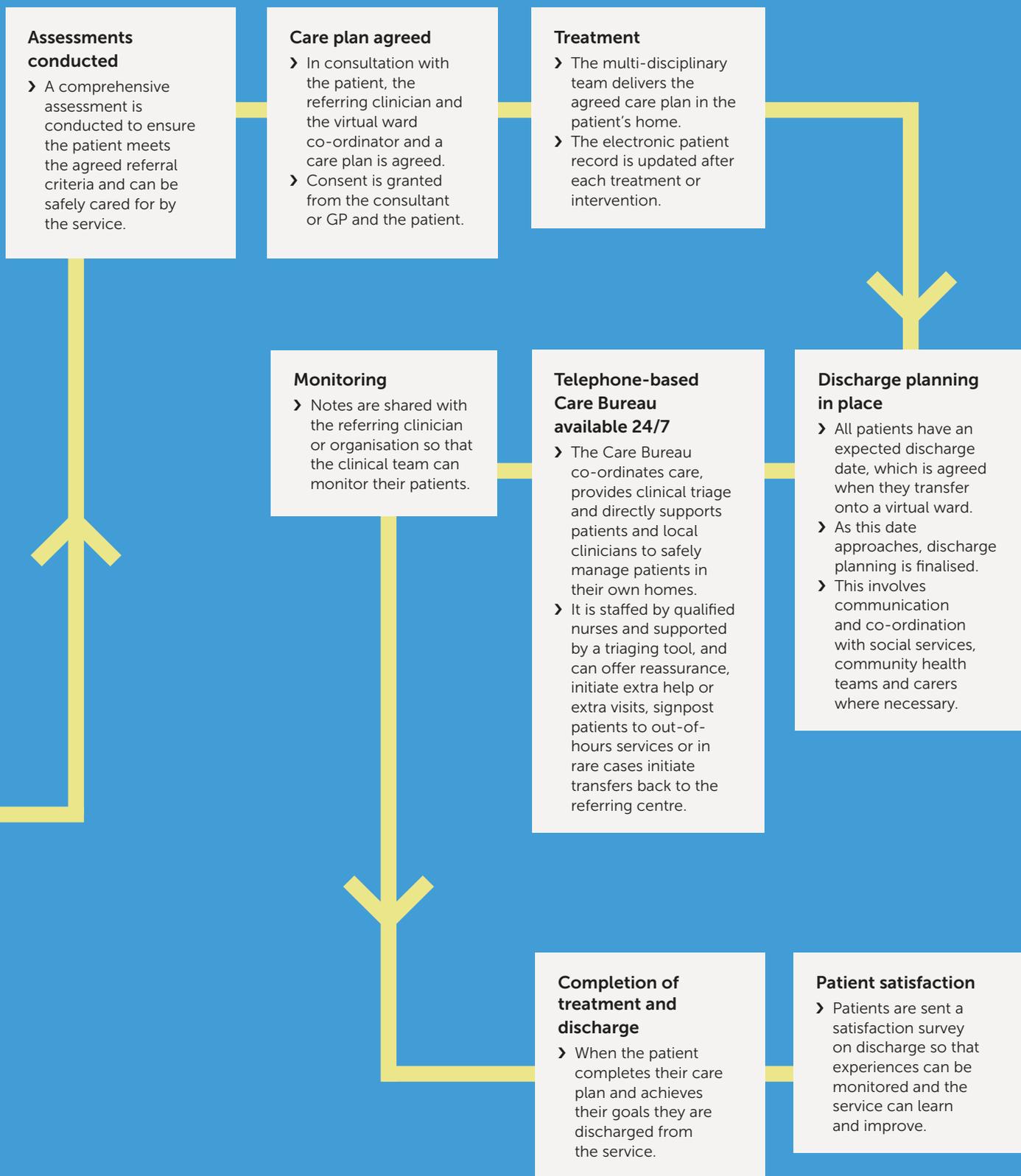
All patients on the virtual ward have a personalised care plan before treatment starts

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The care pathway

A walk through the care pathway for Recovery at Home and Admission Avoidance shows how patient safety and experience remain a priority throughout.





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How far have we come?

In 2014, Healthcare at Home created 379 virtual beds across 21 trusts. This virtual hospital is the size of a small NHS acute trust.



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“ Treatment is no longer the focal point of my day, just a part of my life. ”

Recovery at Home patient, Southampton General Hospital

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In 2013, we estimated that 5,800 beds could be saved nationally if these services were adopted at scale – the equivalent to 40 beds per trust. As there is no national register or dataset that monitors clinical homecare activity across England, we are unable to see a true national view. However, at Healthcare at Home we are able to examine our own data to see how this theory has stood up in practice.

In 2014, our Recovery at Home services were operational across 21 trusts. These 21 trusts saved more than 130,000 bed nights across England through the creation of 379 virtual beds. This is equivalent to creating a virtual hospital the size of a small NHS acute trust. This is how our results would scale nationally:

**In 2014, across 21 trusts,
Healthcare at Home's
Recovery at Home services:**

Treated
15,000
Patients

Made
175,000
Patient visits

Saved
130,000
Bed nights

Created
379
Virtual beds

**Nationally, across 145
non-specialist acute trusts,
this could mean:**

Treating
108,750
Patients

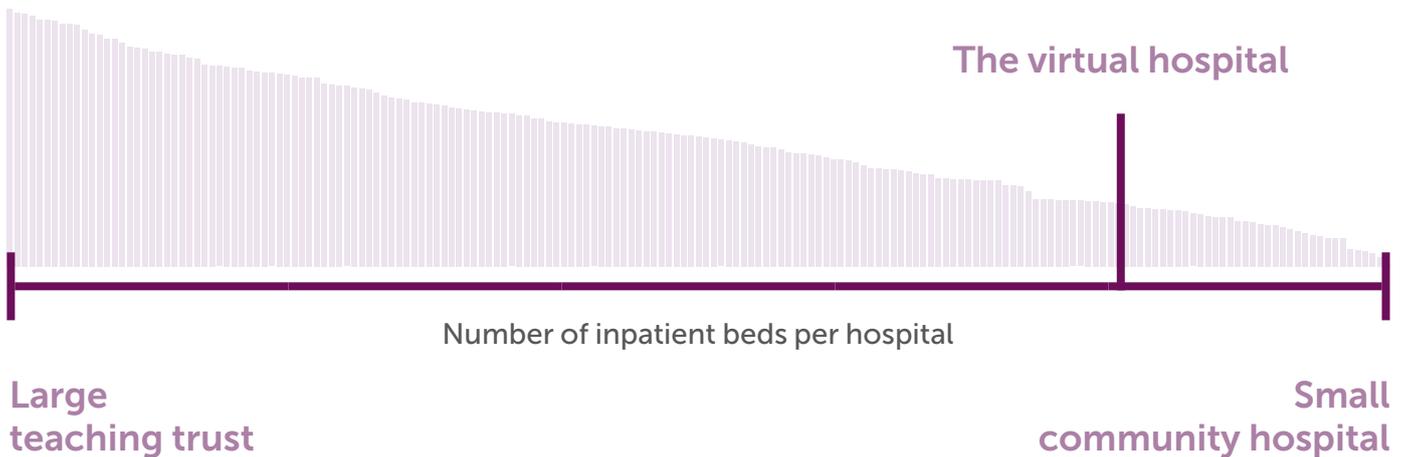
Making
1.27m
Patient visits

Saving more than
942,000
Bed nights

Creating
2,748
Virtual beds

Bed numbers by hospital

Figure: 379 virtual beds were created in 2014, equivalent in size to building a new hospital.



The challenges

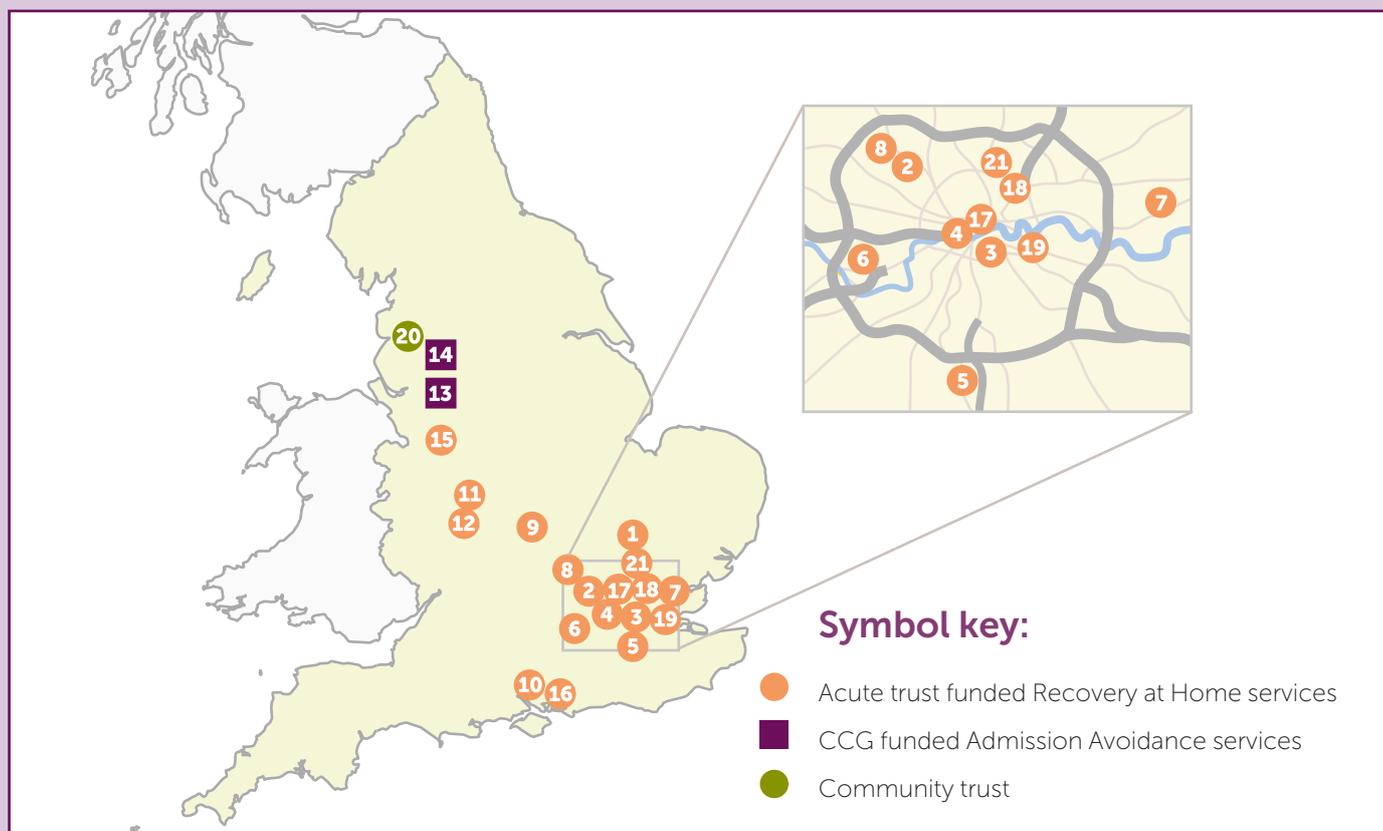
Despite these positive steps forward, there remain challenges to widespread implementation. First and foremost is the culture. For both clinicians and patients, hospital is the traditional setting for acute care. Governance and safety are of the utmost importance to any clinical homecare programme and when co-designing the service, governance is replicated to that of the referring trust.

Nevertheless, the fact remains that many are cautious of a new approach to delivering clinical care. Clinicians may take time to trust the virtual ward model, concerned that they will somehow no longer have full visibility or control. Because of this, uptake may be slow.

While most patients prefer to be at home, some may be cautious of being 'discharged', worried that maybe they will not receive the same level of care at home.

The second challenge to implementation is awareness and understanding. The virtual ward has to be at the forefront of people's minds, alongside a full understanding of the breadth of conditions and procedures that can be referred, and of course the benefits to both patients and trusts of providing clinical homecare as an alternative to inpatient care.

Virtual wards across the country



Services list

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> 1. Cambridge University Hospitals NHS Foundation Trust 2. The Royal National Orthopaedic Hospital NHS Trust 3. King’s College Hospital NHS Foundation Trust 4. Chelsea and Westminster Hospital NHS Foundation Trust 5. Surrey and Sussex Healthcare NHS Trust 6. Ashford and St Peter’s Hospitals NHS Foundation Trust 7. Basildon and Thurrock University Hospitals NHS Foundation Trust 8. West Hertfordshire Hospitals NHS Trust 9. University Hospitals Coventry and Warwickshire NHS Trust 10. University Hospitals Southampton NHS Foundation Trust 11. Good Hope Hospital (Part of Heart of England NHS Foundation Trust) | <ul style="list-style-type: none"> 12. University Hospital Birmingham NHS Foundation Trust 13. Stockport IV Antibiotics 14. Bury and Rochdale IV Antibiotics 15. University Hospitals of North Midlands NHS Trust 16. Portsmouth Hospitals NHS Trust 17. University College London Hospitals NHS Foundation Trust 18. Barts and The London NHS Trust 19. Lewisham and Greenwich NHS Trust 20. Lancashire Care NHS Foundation Trust 21. North Middlesex University Hospital NHS Trust |
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Services in mobilisation

- 21. North Middlesex University Hospital NHS Trust

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Delivering value

Through the creation of virtual wards, capacity is released, bed nights and length of stay are reduced and patient wellbeing, experience and satisfaction are improved.



Virtual wards help to meet rising demand for high quality acute services by expanding the capacity of local health services without needing to build new facilities or increase the number of inpatient beds. Trusts are using released capacity in different ways. Some are choosing to repurpose the capacity for more patients; some to make a saving and close wards. However, there is also emerging evidence of additional benefits of virtual wards to patients, acute trusts and commissioners.

Capacity released

- University Hospital Southampton NHS Foundation Trust has used the capacity released to invest in specialist services and support its move to become a regional trauma centre.
- In 2014, 379 virtual beds were created across 21 trusts. This has allowed individual trusts to release capacity for other treatments or create specialist services.

Bed nights reduced

- Surrey and Sussex Healthcare NHS Trust saved 8,470 bed nights between September 2014 and August 2015.
- Overall, virtual wards across 21 NHS organisations reduced inpatient bed nights by 130,000 in 2014.

Length of stay reduced

- From September 2012 to July 2014, Good Hope Hospital in Birmingham managed to reduce length of stay by an average of 6.1 days per patient.
- As well as helping patients to recover quicker, a reduction in length of stay means bed days can be released for other patients.

Patient wellbeing enhanced

- In the past 12 months, on average, 96 per cent of patients said recovering at home had had a positive impact on their recovery.
- 79 per cent said recovering at home reduced their level of anxiety.
- 75 per cent said it had increased their level of mobility.

Patient experience and satisfaction are improved

- When asked if they would recommend the service to a friend or family member 97 per cent said they would and 93 per cent rated the overall service as eight or above out of ten.

6.1

is the number of days per patient that length of stay was reduced by at Good Hope Hospital Birmingham between September 2012 and July 2014

8,470

bed nights saved at Surrey and Sussex Healthcare NHS Trust between September 2014 and August 2015

96%

of patients said recovering at home had had a positive impact on their recovery

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Extending the virtual ward

Virtual wards can expand and evolve as the trust's needs change. As the infrastructure and governance is in place, additional services can be co-designed and created to meet these needs rapidly.



Once a service has been established, increasing the scope of the service by introducing new pathways can happen easily due to existing infrastructure, governance, clinical training, pathway design and staffing needs. Services that can readily benefit from this evolution include:

Clinical services

As technology, clinical knowledge and practice have evolved, so hospital length of stay has reduced. What were previously considered complex conditions or procedures have now become routine, reducing long inpatient stays to a matter of days. Likewise, patients undergoing certain procedures that may have required a few days stay are often now completed as a day case or an outpatient.

Clinical homecare can continue to support changing clinical practice, enhancing the overall patient experience while at the same time releasing capacity.

The many treatments and care that can safely be carried out at home include:

- Day stay treatment for haematology, medical, oncology/cancer, neurology and surgical conditions.
- Outpatient clinics, e.g. Follow-up clinics for drain/tube removals, TWOC clinics, hyperemesis, anticoagulation, bronchiectasis, physiotherapy, dietetic support, and specific conditions that require ongoing monitoring and review.
- Assessment units for cancer, frail elderly and surgery can transfer patients home for treatment following diagnosis.

Readmission reduction and admission deflection

For specific patients identified by the trust, a telephone and home visit service within 48 hours of discharge allows the clinical team to check their medications, home environment, education and understanding, and that GP follow-up appointments have been made on behalf of the trust. All this assists in reducing unplanned readmissions.

Admissions are deflected when a patient presents in A&E with a condition that could be treated at home. Rather than being immediately admitted, they are put on this service to have their clinical care at home.

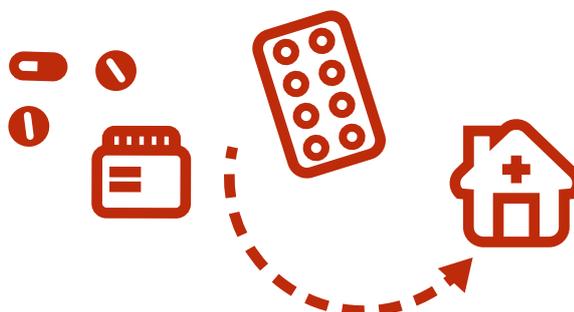
Adherence and persistence

Pharmacists are well placed to work with patients with long-term and ambulatory care sensitive conditions on behalf of the trust to ensure that medication plans are being adhered to. As well as the pharmacists, the nurse teams who deliver injection advice and visit patients' homes can help flag when an intervention is needed. This improves treatment concordance and clinical outcomes, and value for the trust.

Home delivery

Delivering high value, high volume, cold-chain medication on behalf of the trust is another way homecare providers can add value. Pharmacists prescribe and dispense the necessary medication, and a dedicated supply chain delivers it directly to the patient's door.

This cuts down travel or collection time and reassures both the trust and the patient that the medication is being delivered in a secure and reliable manner.



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Getting started

Setting up and embedding virtual wards into a trust takes commitment from all levels. While clinical buy-in to the new service is essential, the internal project managers and transfer co-ordinators maintain momentum and profile for the service on the wards.



For some trusts the virtual ward is an opportunity to redesign clinical pathways, shorten hospital length of stay and improve patient choice and experience. Pre- and post-procedural care outside of hospital could enable a patient's pathway to change from a one or two night stay to becoming a day case as an outpatient.

To introduce new care pathways and patient management, such as through a Recovery at Home service, a trust's internal processes and ways of working have to change to ensure there is a safe and seamless journey for the patient. This takes commitment from the trust at various levels to make this happen.

Steps to creating virtual wards

1. Building trust

Different health economies require different solutions. Making the solution work depends on a close working partnership between the service provider and commissioner.

2. Commitment from the Executive

Commitment from the top is crucial. It sets the pace and drives the actions of the clinical and operational teams and those implementing on the ground.

3. Steering group

To ensure effective partnership working, a steering group formed of clinicians and managerial staff from both the trust and the service provider should be established to oversee and/or review clinical, quality, operational and commercial issues.

4. Joint clinical governance groups

To ensure that there is good governance and transparency of service design, development, monitoring and improvement, it is recommended that a joint clinical governance group is established, ideally chaired by a clinical lead from the trust. The group ensures implementation of a quality assurance framework for the service, receiving and monitoring reports of patient experience, incidents, workforce development

and establishment and other quality assurance metrics.

5. Clinical buy-in

Clinicians have to trust the service in order to drive and oversee its utilisation. Having a clinical champion is essential to ensure teams are reassured of the governance and safety of their patients. By involving clinicians in implementation from day one and involving them in the co-design of the pathways, the service is embedded quicker and more effectively.

6. Internal project manager

Having an internal project manager within the trust, who works with clinicians to help identify patient cohorts and new pathways, helps to keep this option at the forefront of conversation. As well as driving the internal momentum for the project, they also act as an internal trust liaison with the virtual ward team manager and transfer co-ordinators.

7. Transfer co-ordinator

In Recovery at Home services, the hospital-based transfer co-ordinators are the link between the trust, the patient and the field-based multi-disciplinary team providing the care. They explain the service, assess the patient, obtain consent, develop the care plan, and identify the care team and any additional services needed by the patient.



Clinicians have to trust the service in order to drive and oversee its utilisation

Steps to creating virtual wards

8. Local services

With commitment at all levels of the organisation from the board to the clinical teams, involving local services is necessary to ensure that the patient experiences a seamless and integrated pathway.

9. Timely mobilisation

Enough time has to be allowed for the service to be co-designed and integrated and for governance and clinical protocol to be established before launch.

10. Communication and awareness

The service needs internal, clinical advocates to ensure that patients are referred on to the service following launch. Communication and awareness-raising should be included in the overall project scope and budgeted for, as it is critical to maintain momentum with referrals beyond the early stages if the service is to achieve scale.

11. Sharing of information

Throughout the course of treatment, clinical information data is collected, shared and analysed to ensure that the patient is monitored and is responding to treatment. The capturing of clinical, quality, operational and financial information is used for mandatory and other trust reporting.

12. Becoming 'business as usual'

The ultimate aim is to move from a state of establishing the service to it being embedded and operating as a business-as-usual, fully integrated pathway.



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Clinical homecare is expected to keep evolving and changing as advances are made and commissioning organisations become more aware of the benefits it can achieve. Working with trusts and CCGs to co-design and co-produce services is key not only to the establishment of a service but the continued success of it.

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Foot notes

1. *Nuffield Trust briefing*, 'NHS hospitals under pressure: trends in acute activity up to 2022', by Paul Smith, Andy McKeon, Ian Blunt and Nigel Edwards, published October 2014, (http://www.nuffieldtrust.org.uk/sites/files/nuffield/publication/ft_hospitals_analysis.pdf)
2. *HSJ online article*, 'Cash is king again': trust chiefs respond to Monitor letter, by Sophie Barnes, published August 5 2015. (<http://www.hsj.co.uk/news/finance/cash-is-king-again-trust-chiefs-respond-to-monitor-letter/5089429.article#.VduEHCxViko>)
3. *Healthcare at Home report*, Addressing the hospital capacity problem: *The Recovery at Home solution*, published August 2013. (www.hah.co.uk/wp-content/themes/HealthCareatHome/img/pdfs/Recovery_at_home_report_2905.pdf)
4. *Guardian article*, Hospital A&E waiting time target missed for 90th week in a row, by Haroon Siddique, published April 13 2015 (www.theguardian.com/society/2015/apr/13/hospital-waiting-time-target-missed)

For more information

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About Healthcare at Home Ltd

Healthcare at Home is the UK's largest home healthcare provider, caring for more than 150,000 NHS and private patients each year throughout the UK.

Our vision is to enhance the way in which clinical and pharmaceutical services are provided for patients, their families and carers. Healthcare at Home strives to improve clinical outcomes for patients by allowing them to receive treatment in the comfort of their own home.

Healthcare at Home has a team of highly skilled clinicians to provide a number of treatments and services to patients that include end of life care, chemotherapy at home, Recovery at Home as well as medication management and optimisation for a range of conditions.

For more information about our services please visit our website: www.hah.co.uk



healthcare at home
it's where you want to be