

The impact of the COVID-19 pandemic and the resulting capacity issues within the health service mean that the approach to the delivery of health and care services is fundamentally changing.

There is a rapid growth in the virtual healthcare market and the use of remote monitoring of patients in their own homes instead of in hospital.

Pre-pandemic the majority of remote patient monitoring in the home was for long-term conditions including COPD and heart failure but virtual care is now being expanded and used to monitor patients with short-term conditions, including hypertension and respiratory illnesses.

Increasingly virtual wards are being developed to deliver care for patients at home who would otherwise have to be treated in hospital by enabling earlier supported discharge and providing alternatives to admission.



NHS England has recently defined virtual wards and virtual care as follows:

A virtual ward:

" is a safe and efficient alternative to bedded care that is enabled by technology. Virtual wards help patients who would otherwise be in hospital to receive the acute care, monitoring and treatment they need in their home.

They support early discharge out of hospital and prevent avoidable admissions into hospital."

Virtual care:

" provides enhanced healthcare at home but not as an alternative to NHS bedded care.

It is for stable patients with long-term conditions, escalating patients who need admission, acute care consultations and preoperative care before and after operations."



Where virtual wards and virtual care fit in

Virtual care

Provides enhanced healthcare at home, but not as an alternative to NHS bedded care.

Stable patients, such as:	monitoring chronic diseasesmanaging long-term conditions
Escalating patients, such as:	 using COVID -19 Oximetry @home to identify who needs admission using of RESTORE2 in care homes to identify signs of deterioration
Acute care, such as:	• using virtual consultations with GPs or acute hospitals
Perioperative care, such as:	assessing pre-operative patientsmanaging their wounds post-operation

Virtual wards

Provides enhanced healthcare at home as an alternative to NHS bedded care.

Acute respiratory infection (ARI) virtual ward, such as:	supporting ARI (e.g. oxygen saturation monitoring +/- oxygen, IV antibiotic or dexamethasone treatments)
Frailty Hospital-at-Home, such as:	• supporting frailty conditions that require multi-disciplinary team input and hospital-level care
Others, such as:	 General medical conditions (e.g. heart failure, COPD) Paediatric conditions End of Life Care Virtual Wards
Perioperative care, such as:	assessing pre-operative patients managing their wounds post-operation

Latest guidance from NHS England on virtual wards

Latest guidance from NHSE states that virtual wards will as a minimum include remote monitoring at home, daily multi-disciplinary teams (MDTs) and consultant practitioner oversight.

Depending on the pathway and acuity of the patients they may also deliver face to face services at home such as point of care testing, IV therapy and rehab interventions.

It also confirms that virtual wards should:

- only be used for patients who would otherwise be admitted to an NHS acute hospital bed or to facilitate early discharge.
- fully exploit remote monitoring technology and wider digital platforms to deliver effective and efficient care.
- manage length of stay in virtual wards through establishing clear criteria to admit and reside for services.

What's next for virtual wards?

The NHS 2022/23 Priorities and Operational Planning Guidance reconfirmed the ongoing need to transform and build the capacity of community services to deliver more care at home and improve hospital discharge.

Integrated Care Sysytems (ICSs) are being asked to maximise the rollout of virtual wards to deliver care for patients at home who would otherwise have to be treated in hospital by enabling earlier supported discharge and providing alternatives to admission.

By December 2023, NHS England expects ICSs to have completed the development of virtual wards towards a national ambition of 40-50 virtual beds per 100,000 population.

The rollout of virtual wards is being financed via the Primary Care System Development Fund (SDF) covering £200m for FY22/23 and £250m for FY23/24.



Continuous monitoring

To provide safe and robust virtual wards, it is essential to be able to continuously monitor patients, if required.

The ability to monitor in real-time, know an issue before it happens, analyse real-time medical data and reduce the cost and demands on healthcare services could be a game changer.

Patients can either wear a medically approved device that continuously monitors vital signs or they can take their readings at regular intervals (or a combination of both).

The VitalPatch has FDA/CE (Class IIa) certification for medical use and is changing the way health is tracked and measured, and continuously monitors vital signs in real-time:

- Activity, including steps
- Heart rate
- Blood pressure
- Heart rate variability
- Body and skin temperature
- Respiratory rate
- · Body posture
- RR interval
- Fall detection
- · Single-lead ECG
- Oxygen saturation

To enable ICSs to maintain quality and manage risks effectively, the model changes to include more face-to-face care at home as patient needs become more complex.



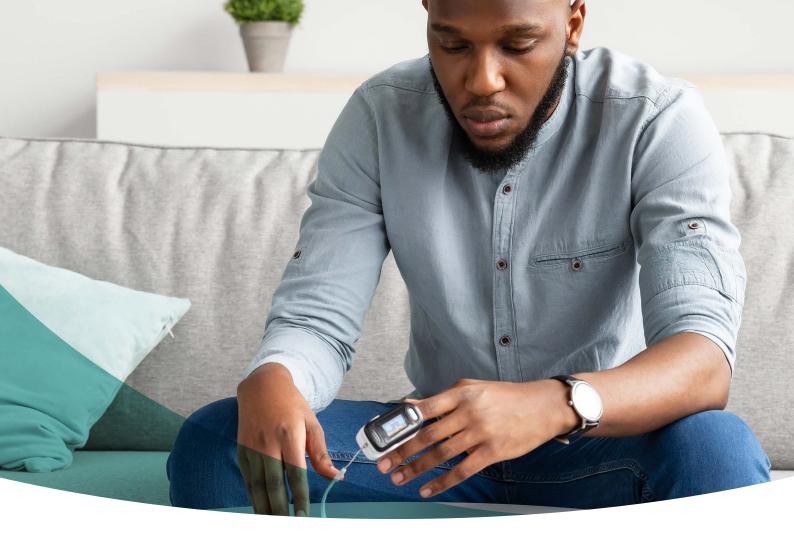
Challenges and risk management

First-rate technology is essential but it is only part of the solution and for virtual wards to succeed, a whole system approach needs to be established.

The infrastructure needs to be in place to escalate the patient if their health begins to deteriorate rapidly. To provide 24-hour safe and robust virtual wards, staffing is required for a minimum of 12 hours a day (8am–8pm), seven days a week, with locally arranged provision for out-of-hours cover.

Integration is also key because without integration with clinical systems and without the ability to share data with the right professional via the right systems at the right time, extra work is created and the efficiencies of digital are lost.

In addition, continuous monitoring and virtual wards will create vast volumes of confidential data to be stored and used securely.



How Inhealthcare can help your ICS develop virtual wards

Our technology is constantly evolving to reflect the changing needs of the NHS. An excellent example of this is the technology we provided for the breakthrough COVID Oximetry@Home (CO@H) programme at the start of the pandemic.

It enabled the remote monitoring of people with confirmed or suspected COVID-19, and demonstrated how patient care can be transformed in a short space of time, without compromising safety.

The Inhealthcare Toolkit allows NHS organisations to build, test and rollout digital health services at speed and low cost to address their changing demands and cover new conditions.

Using the Toolkit, we have recently repurposed the CO@H service to provide more virtual care, including for respiratory and hypertension patients.

Our technology now includes a continuous monitoring service to measure the vital signs of patients, who have been discharged from hospital to allow them to recover at home rather than in hospital, every second, 24/7.

Get in touch

We pride ourselves on the support we provide to our customers from the very start of a project to build to delivery and beyond.

During the build we work closely with our partners and have thorough testing in place for all potential users at every stage. On delivery of a new service, we provide marketing and PR support and all our customers are provided with on-going dedicated account manager.

Our industry-leading reporting and analytics provides both operational and strategic insight into the performance of the service.

Inhealthcare is a member of the Crown
Commercial Service's Spark DPS and also
G-Cloud 12, NHS Shared Business Services
TECS and Health Systems Support Framework,
demonstrating the company meets required
standards across clinical safety, data protection,
cyber security, interoperability
and accessibility.

The Inhealthcare Platform is registered as a Medical Device with the Medicines and Healthcare products Regulatory Agency.

To find out how we can help you, email **contact@inhealthcare.co.uk** or call **01423 510 520**.



Find out more at www.inhealthcare.co.uk

