

Brochure

# Remote patient monitoring and virtual wards **you can depend on**

*An overview of our services*

**inhealthcare**  
by ResMed





## You're in safe hands

Inhealthcare is the UK's number one choice for remote patient monitoring, virtual wards and hospital @ home.

Our technology is tried and tested and has been proven to free up hospital beds, cut costs and reduce A&E admissions.

We support more than 50 NHS trusts in England, the five Health and Social Care Trusts in Northern Ireland and we have a national agreement with National Services Scotland to deliver services across the 12 health boards.

Our services are also loved by patients. In a recent survey, 99% of patients rated our virtual ward as either good or very good.

All our digital health services are co-designed with the NHS and with input from clinicians and users. We work with NHS organisations to build new services and we also have a library of over 150 existing services. These can be adapted to suit the needs of our customers and their populations.

We support vulnerable high-risk patients, including those in care homes, and patients living with long-term conditions such as respiratory diseases and heart failure. We also support patients with short-term conditions including hypertension monitoring.

Inhealthcare is part of the ResMed family.

### Remote patient monitoring services that deliver results

<b>4,000,000</b> patient users	<b>150</b> remote monitoring services	<b>50,000</b> new users each month	<b>100,000</b> vital signs captured each week
<b>88%</b> reduction in bed days	<b>89%</b> reduction in A&E admissions	<b>69%</b> reduction in GP visits	<b>99%</b> of patients rated the service as good or very good
<b>Integration into NHS</b> is unrivalled	<b>MHRA registered</b> class I device	<b>Largest BP monitoring</b> service in the world	<b>Digital inclusion</b> at the heart

## Our extensive range of services

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All our digital health services are co-designed with the NHS and with input from clinicians and users. We work with NHS organisations to build new services and we also have a library of existing services. These can be adapted to suit the needs of your organisation.

### *Remote patient monitoring*

BP@Home  
NEWS2  
Oncology  
Oximetry@Home  
SBAR / Restore2  
Virtual wards

### *Workforce optimisation*

Digital care home  
Pre-assessment tool  
Pre-endoscopy  
Post-surgical tracker  
Wound management  
Undernutrition

### *Prevention*

Gestational diabetes  
Hypertension  
Health checks  
Serious mental illness  
Smoking cessation  
Teledermatology

### *Self-referrals*

Bladder and bowel  
Childhood immunisations  
Immunisation invite service  
MSK  
PIFU

### *Appointment management*

Appointment reminders  
Consent preference  
Digital outpatients  
Electronic letters  
Patient portal and bookings

### *Long term conditions*

COPD  
Diabetes  
Falls  
Heart failure  
INR self-testing



## Virtual Wards

Delivering care for patients at home who would otherwise have to be treated in hospital, by enabling earlier supported discharge and providing alternatives to admission.

Our technology-enabled virtual wards monitor patients in their own home through our digital health platform, supporting both step-up and step-down models of care.

Patients or carers measure agreed vital signs and enter data using a communications method that suits them. This includes smartphone app, SMS, automated phone call or online portal meaning the service is truly digitally inclusive.

Inhealthcare's technology offers patients different frequencies of monitoring according to clinical need.

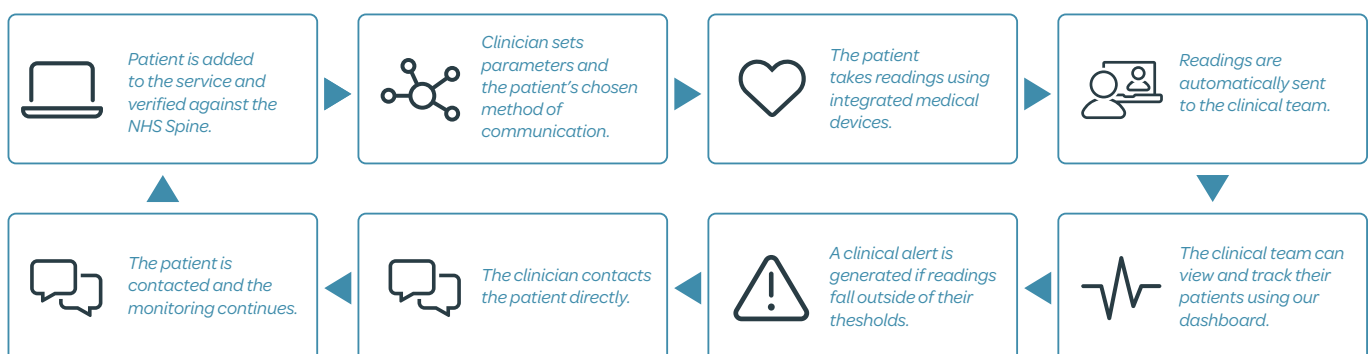
This ranges from one or two times a week to several times every day, to the use of wearables that continuously monitor.

Clinical teams can view individual patient measurements through our dashboard. Teams will be alerted when patients move outside of agreed parameters, allowing them to take appropriate action.

Inhealthcare boasts unrivalled integration with GP and hospital systems, including SystemOne and EMIS Web.



## How do our services work



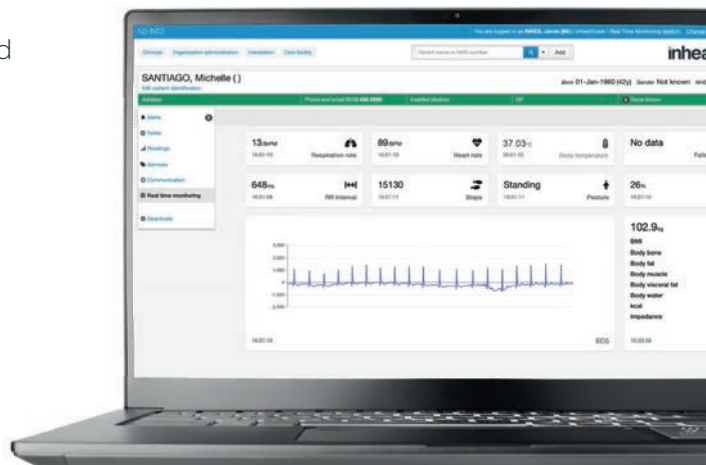
## Continuous monitoring and clinical monitoring

The Inhealthcare Platform integrates with wearable continuous monitoring devices so clinicians can monitor their patient's vital signs continuously whilst the patient is in the comfort of their own home.

Readings can be taken from 5-second to 15-minute intervals, depending on the acuity of the patient. Live readings are displayed to the clinical team on an interactive dashboard.

This technology enables virtual ward teams to safely deliver hospital-standard clinical care to patients in their own home or care setting, whilst freeing up a hospital bed for those in need.

We offer both a wearable patch and a rechargeable watch. Both devices can connect to Android and iOS devices.



## Continuous vital sign monitoring measurements include:

- Blood pressure
- Pulse rate
- Respiratory rate
- Single lead ECG
- Pulse pressure
- Skin temperature
- Blood oxygen saturation
- Heart rate variability
- Mean arterial pressure
- Cardiac index
- Systemic vascular resistance



Patch



Watch

## Clinical monitoring in virtual wards

Inhealthcare partner with CQC-registered provider Bionical Solutions to offer a range of clinical services. Bionical offer a modular approach to the delivery of services supporting virtual wards, providing flexibility and scalability.

Bionical's virtual ward solution is all encompassing and can support patients at multiple stages of their journey, including onboarding, setup, education, patient treatment and training.

Bionical also offer a range of management services including staffing, pathway development, implementation, escalation, monitoring and performance.



### Peer to Peer Service Set Up:

- Service pathway and protocol design
- Stakeholder support and management



### Remote Patient Monitoring:

- Band 6 nurses and Allied HCP support
- On/Off site remote monitoring
- In/Out of hours clinical support
- Patient on site education and onboarding



### Hospital at Home Support:

- Patient treatment and training
- OPAT, infusions and phlebotomy
- Patient at home education and onboarding
- Coaching and motivational interviewing

## Clinician dashboard

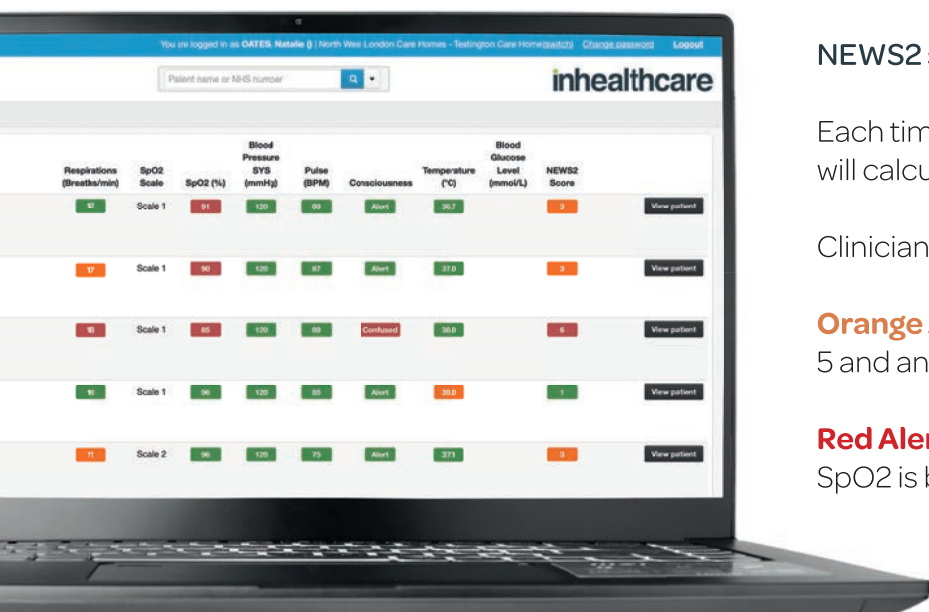
Our remote monitoring services enable patients to submit their readings via a communication channel of their choice and clinical teams are able to view patient readings through our dashboard.

They are alerted when patients move outside of agreed parameters or set algorithms such as NEWS2, helping to identify in a timely manner when a patient may be deteriorating and to prioritise patients who need urgent treatment.

This helps to increase the productivity of healthcare professionals as they are able to remotely triage patients and only need to intervene when a person requires help.

It means that they can access relevant information quickly and effectively which supports better decision-making for workflow and capacity management across primary and urgent care. The sharing of information also enables multiple conditions to be monitored by one healthcare professional.

Clinicians have access to trend data and charts so they can view patient results over a period of time.



### NEWS2 scoring, RAG rating and alerts

Each time observations are submitted, the system will calculate a NEWS2 and RAG rating.

Clinicians receive alerts based on NICE guidelines:

**Orange Alert** » a NEWS2 score of 5 or 6, or if below 5 and any individual reading has a score of 3.

**Red Alert** » a NEWS2 score of 7 or above, or if the SpO2 is below the patient-specific SpO2 threshold.



*Having the ability to view all of our Covid-19 patients on a single dashboard has meant patients are safer, they are receiving the right care at the right time and the burden on our clinical teams has reduced; physically and emotionally.*

*We know our patients are receiving optimum remote care 24/7.*

Sarah Kearney - Lead Respiratory Clinical Nurse Specialist & Covid Lead, Isle of Wight NHS Trust

## Truly digitally inclusive services

Nobody should be excluded from digital health because of the access they have to technology. For digital health to be truly inclusive and accessible to all patients, the full choice of communication channels for patients to submit their readings to healthcare professionals must be available – simply providing an app is not enough.

At Inhealthcare we offer the full choice of communication channels for patients. Options include smartphone, apps, emails, online portal, video conferencing and Amazon Alexa as well as text messages, automated calls and the ability to speak to someone on the telephone and give staff readings to input manually.

Providing all these channels, including landlines, enables patients without the internet or smartphones, as well as those who are not tech savvy or live in rural locations, to access digital care.



*If you've got the opportunity, if it means getting out of the hospital and getting home, I would jump at the chance. Nobody likes to be in a hospital. You're obviously much better when you're at home.*

Morgan Wallace, virtual ward patient at Leeds Teaching Hospitals NHS Foundation Trust

**6%** of UK adults do not have access to the internet at home. This increases with age, with a fifth of those aged 65+ not having home internet access.

**7%** of those aged 65+ are also the most likely to say that they have access to the internet but do not use it, indicating that they either do not feel the need to use it or lack the necessary skills.

**14%** of people in DE households do not have internet access at home compared to **2%** of people in AB households.

*"The proportion of those with access to the internet at home remains unchanged since early 2021 for UK adults **(94%)**."*

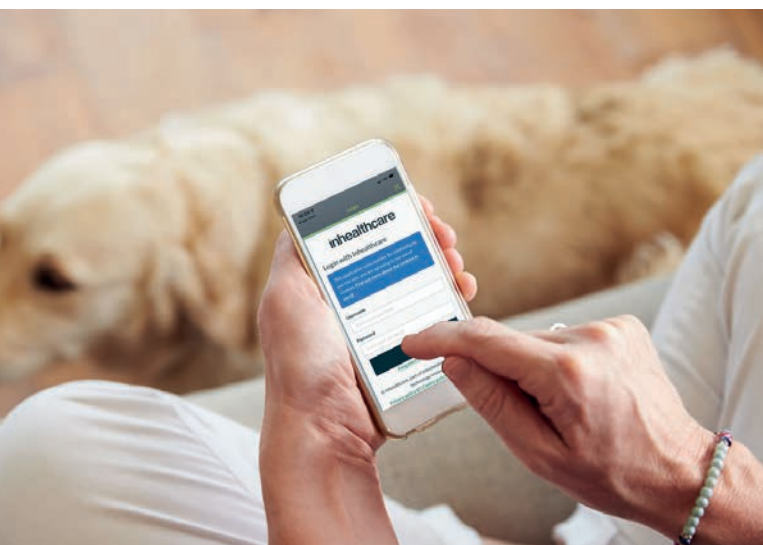
Ofcom Online Nation 2021



*We know that many patients for varying reasons may not be able or want to engage with digital solutions when it comes to their care.*

*A key principle of our solution was to ensure we didn't exclude anyone from the service: we wanted to provide options based on patient need and preference but have a consistent service provision regardless of the method they chose to interact with us.*

Dr Caroline O'Keeffe, GP, North Hampshire Hot Hub



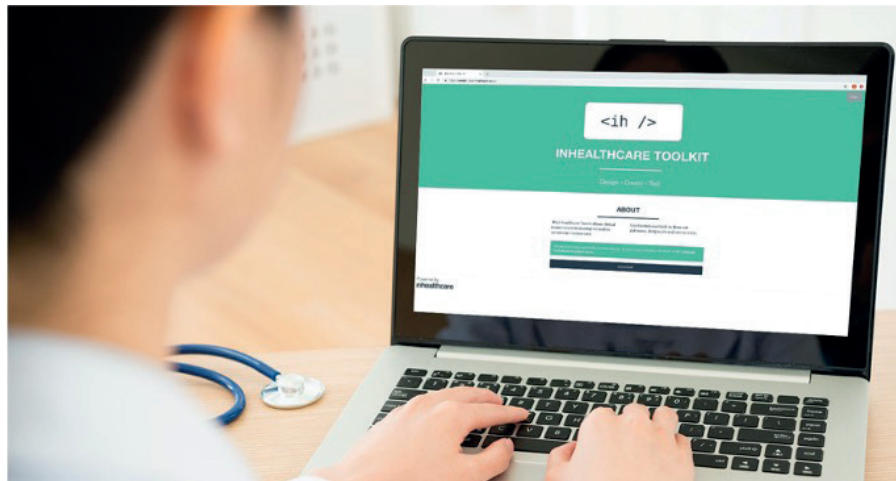
## The Inhealthcare Toolkit

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If we don't have the digital service you're looking for, your in-house Informatics Team can build it at speed and without huge development costs using the Inhealthcare Toolkit.

The Inhealthcare Toolkit is a web based interface and allows for the co-design and co-development of services. It's easy to use and, if you need any support, the Inhealthcare team are available to help you.

There's a full user guide, a range of tutorials and you can also post questions directly to other users and the Inhealthcare Development Team.



Services developed with the Inhealthcare Toolkit can be deployed with a single click which allows users to easily test and evaluate the experience of clinicians and patients, and make improvements accordingly.

Web forms for online and smartphone applications, automated phone call scripts and email templates can also be developed and demonstrate immediately how information will be displayed, making it quick and easy to get user feedback.

The Inhealthcare Toolkit allows best practice to be shared across the NHS, increasing adoption and reducing the time it takes to develop new services. This enables the spread of digital services at a low cost.

## Supporting the NHS

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Whether it's reducing costs and bureaucracy or making a condition easier to manage at home for patients, every digital health service should offer clear economic value and evidence of the savings it can offer the NHS.

By providing care outside of traditional settings, our digital health services help to reduce costs, increase capacity in the NHS and ease pressures on clinicians and frontline staff by:

- ✓ Reducing hospital admissions.
- ✓ Reducing delayed transfers of care.
- ✓ Easing pressures on waiting lists.
- ✓ Enabling patients to be safely discharged and monitored in their own homes.
- ✓ Increasing diagnostic capacity by automating processes.
- ✓ Reducing face-to-face appointments and nurses' visits by enabling patients to input readings at home.
- ✓ Reducing paperwork and administrative tasks.



## Unparalleled integration with NHS systems

Integration is key to remote patient monitoring. Without integration with clinical systems and without the ability to share data with the right professionals via the right systems at the right time, the efficiencies of digital are lost.

At Inhealthcare we offer unparalleled integration with national GP and hospital systems, including GP Connect, MESH, SCI Store, NHS Spine, EMIS Web and SystmOne.

We also integrate with NHS login to make it quicker

and easier for patients to access their services, and with Spine to validate NHS numbers and retrieve latest patient demographics.

We provide open and published APIs for connecting to third party systems.

### Integration checklist:

- ✔ Systems use NHS number.
- ✔ Integration with industry standards such as HL7 v2/v3/FHIR.
- ✔ Spine validation.
- ✔ Open APIs.
- ✔ Integration with NHS login.
- ✔ Integration with MESH.

## Helping to deliver a net zero NHS

Delivering remote monitoring services to patients in their own homes, reduces the need for unnecessary travel to attend routine care appointments. As the NHS accounts for 9.5 billion road miles or 3.5 per cent of all road travel in England every year, the potential for saved journeys is significant.

As we grow and add more patients to more services, savings are only going to increase in the future, a welcome outcome in the challenging journey towards net zero.



*The remote monitoring virtual wards have been a game-changer for expeditiously managing patients in a different way safely and effectively. We have for many years held on to a varied set of patients in hospital beds awaiting investigations, interventions or just for ongoing observation. By using the bespoke pathways, we have managed to facilitate earlier discharges and streamline ambulatory care of patients, vastly improving patient experiences.*

Adam Peckham-Cooper, lead consultant for emergency general surgery

### Accreditations

- ISO127001 and ISO13485 accredited.
- MHRA registered Class I device.
- DCB 0129 compliant.
- Cyber Essentials Plus accredited.
- NHS Digital accredited Spine Mini-Services Provider (SMSP).
- NHS Digital's Data Security and Protection Toolkit compliant.
- Data security in line with the government's code of conduct for data-driven health and care technology.
- Signatory of the TechUK Interoperability Charter.
- Supporter of the Newcastle Declaration as part of our commitment to open interoperability without commercial barriers.
- Services are available on the following procurement frameworks: G-Cloud, Spark DPS and NHS SBS Technology Enabled care (TECs).

## Evaluations of some of our services

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### Covid Oximetry @Home

Research shared by Dr Matt Inada-Kim, national clinical director for deterioration at NHSE shows:

- Hospital length of stay was reduced by an average of **6.3** days for CO@H patients in comparison to non-CO@H patients.
- Only **3.6%** of CO@H patients were admitted to ICU compared with **8.2%** for non-CO@H
- **5.8%** of CO@H patients died within within 30 days compared to **20.5%** of non-CO@H patients.

### Covid Oximetry @Home

The service was implemented across Sussex from December 2021 to May 2022 to help manage an increase in Covid cases from the Omicron variant:

- **99%** of responses reported the service as either a good or very good experience.
- The majority of patients reported that they felt safe and reassured while using the service.
- In a patient survey, patients were asked what they would have done had CO@H not been available. Assuming these responses are representative of all users, the service would have saved over **440** A&E attendances, **1,150** calls to 111, **750** GP visits, **146** pharmacy visits and **84** clinic walk-ins.

### Blood Pressure @Home

A local trial involving 69 patients from four GP practices in Surrey Heartlands found the digital service helped **53%** of users move from high to normal threshold blood pressure within five months.

### SBAR service for care homes

- **45%** reduction in specialist nurse visits.
- **18%** reduction in overall unplanned admissions.
- **13%** reduction in out-of-hours unplanned admissions.
- **24%** reduction in in-hours unplanned admissions.

### INR self-testing service

A clinical study of 200 patients established:

- Time in Therapeutic Range (TTR) increased by an average of **20%** for **70%** of patients on the service.
- **100%** of those on the service say they would recommend the service to others.
- Over three years, the service has saved the trust over **22,000** appointments.

### Virtual wards

- The Remote Monitoring Virtual ward team have saved **959** bed days in the five months.
- The first six pathways allowed **176** patients to be safely supported at home as an alternative to being looked after on hospital wards.
- The inaugural programme created efficiency savings worth an estimated **£372,000** between November and March, with an estimated average weekly savings of **£15,000** in the coming months



## Transforming patient care

Our easy to use remote monitoring healthcare services provide a wide range of benefits to patients and feedback is overwhelmingly positive.

### Reassurance

Patients feel reassured and cared for because they know they're being monitored on an on-going basis.

Regular self-monitoring and self-assessment enables the early identification of patients requiring interventions and conversely there are no unnecessary interventions for those who show no sign of deterioration and simply continue to self-manage.

### Convenience

Digital healthcare gives patients a choice about how they receive their healthcare. Enabling patients to monitor their condition at home rather than in a clinical setting is convenient and cuts out unnecessary and time-consuming travel and associated costs.



*The service gave me confidence that my state of health was being looked at all the time.*

**Donald Ray, heart failure patient**

### Empowerment

Our digital healthcare services enable patients to take a more active role in the management of their health, and to have more control of their care whilst remaining under the remote supervision of their care team. This preventative care can improve patient outcomes and free up appointments for more acute patients by reducing the burden on both GP practices and hospital clinicians.



*I've become more aware of what the blood pressure readings mean. As a result my medication has been changed, and I have also made some lifestyle changes to help manage my blood pressure better.*

*These small changes are already helping me feel in control and have had a positive effect on reducing my blood pressure.*

**Mr Gurmit Bhamra, Surrey Heartlands patient**

*It allowed me to go home to my kids. The staff were amazing, always there when I needed support and went the extra mile to help me. The system is super easy to follow and takes only a few minutes, allowing me a proper rest at home. I would recommend virtual wards to anyone and would definitely use this service again.*

**Toni Bailey, virtual ward patient, Leeds Teaching Hospitals  
NHS Foundation Trust**



## Checklist

- ✔ Over 12 years of experience of working with the NHS.
- ✔ Tried, tested and proven technology.
- ✔ Used by more than 4 million patients across the UK.
- ✔ Services co-designed with the NHS and with input from clinicians and users.
- ✔ Services purpose-built for your organisation so they meet your needs and the needs of your population.
- ✔ Services can be built at speed and cost effectively using the Inhealthcare Toolkit.
- ✔ Truly digitally inclusive and accessible to all.
- ✔ Unparalleled integration with NHS systems.
- ✔ Industry leading reporting and analytics, enabling informed decisions about operational and clinical improvements for patients.
- ✔ All services delivered from a single platform, providing economies of scale and avoiding need to work with disparate apps and different technology partners.
- ✔ MHRA registered Class I device.
- ✔ Open and published APIs for connecting to third party systems.
- ✔ Integration with industry standards such as HL7 v2/v3/FHIR.
- ✔ On-going account management.
- ✔ Marketing and PR support.

**inhealthcare**  
by *ResMed*

01423 642480

[www.inhealthcare.co.uk](http://www.inhealthcare.co.uk)

[contact@inhealthcare.co.uk](mailto:contact@inhealthcare.co.uk)

