# WELCOME TO

## The NHS Virtual Wards Conference 2022


Check Out Our Agenda Here...

Tuesday 8th November 2022- 10:25am – 15:00pm – GoTo Webinar

Please remain logged in, we will begin shortly. Conference hosted by Convenzis Group Limited

# The NHS Virtual Wards Conference 2022

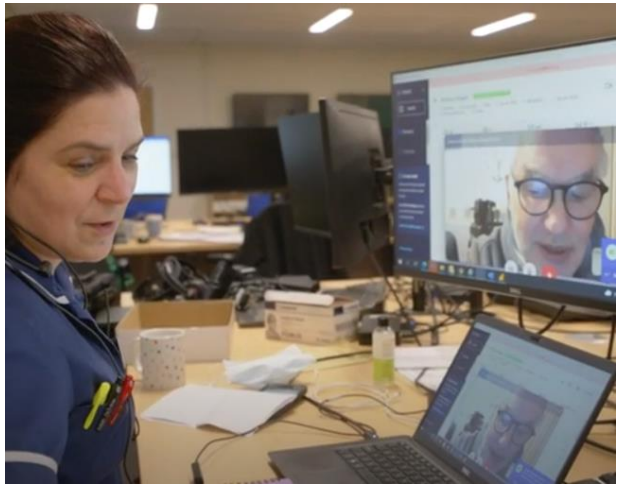
# SPEAKING NOW

Jane Sproat

Assistant Director, Virtual Wards Programme
NHS England

## I will be discussing…

"Virtual Wards: Story so far and what's next"




# Virtual Wards: Story so far and what is next?

**Jane Sproat**
**Assistant Director Virtual Wards Programme**
**Twitter @janey513**

**8th November 2022**

# What will we cover in the next 20 minutes?

1. **The virtual ward journey for the NHS in England**
2. **Why virtual wards?** What challenges are we trying to address
3. **What is a virtual ward?**
4. **What next?**
5. **How can you get involved?**
6. **Questions and answers** – the last 5 minutes we'll be able to take some questions

# Virtual wards have come a long way

**Jan 2021**

Guidance for the immediate roll-out of Covid virtual wards published by NHSE

**Autumn 2021**

Covid virtual wards established in 96% of trusts. Case for change for expanding virtual ward pathways produced and models for ARI and frailty developed

**Winter 2021/22**

Guidance for implementing ARI and frailty virtual wards published and virtual wards included in Operational Planning Guidance 22/3

**Spring/ summer 2022**

ICSs supported to develop plans to deliver virtual wards. Plans approved and funding provided.

**Autumn 2022**

ICSs supported to deliver their plans, including developing data collection processes, supporting learning (COP and clinical summits), and developing approach to evaluation

**Now**

Over 6800 virtual ward beds available and around 10,000 people supported each month, with occupancy and capacity continuing to grow.

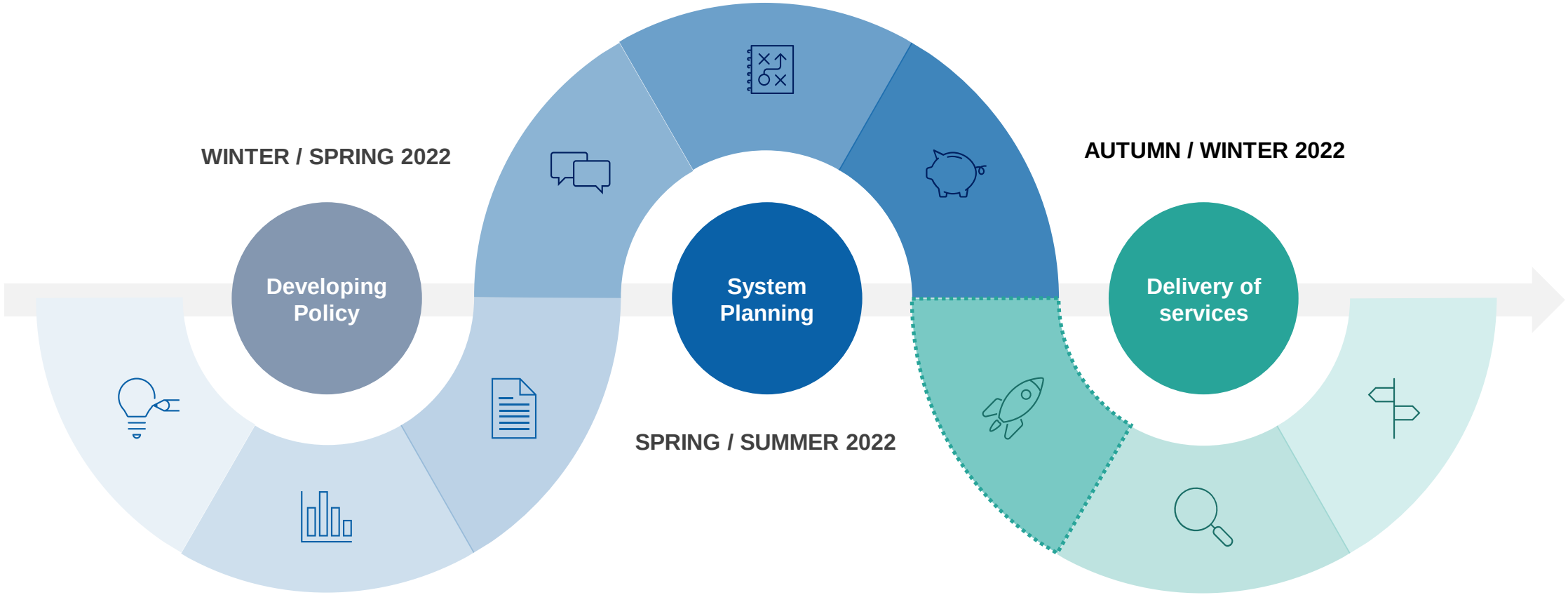
# Virtual wards plans are in place in every ICS and we are collectively supporting more people each month

**Around 10,000 people a month are being supported currently**

**Over 6,800 VW ‘beds’ in place currently**

**Over 200 services reporting activity**

**We are aiming that by December 2022 this increases to nearer to 20,000 people**



# We need to think differently but why virtual wards?

1

**We have a capacity and demand challenge that we need to think differently about**

According to the Kings Fund , *The total number of NHS hospital beds in England has more than halved over the past 30 years, from around 299,000 in 1987/88 to 141,000 in 2019/20, while the number of patients treated has increased significantly.*

2

**Our Urgent and Emergency Care services are hugely challenged due to high demand**

NHS staff working in urgent and emergency care continue to face high demand for their services, with the number of the most serious ambulance call outs in September (69,458) up by a fifth compared to before the pandemic (55,753 in Sep 2019).

3

**We need to act on the commitments within the long term plan**

From the ambition to bring care closer to home by boosting out of hospital capacity to the use of technology to provide connected integrated care. A number of the LTP commitment are support the service design of virtual wards.

4

**Winter is going to be very challenging**: As is well publicised, the service is under significant pressure and – driven by rising demand – huge challenges remain with delays to hospital discharge, high bed capacity, overcrowding in emergency departments, delays to ambulance handovers and delays to ambulance call outs.

# Key findings from the review of reviews

1. Higher levels of **patient satisfaction** (low quality evidence)
2. No significant difference or lower **mortality** (low to moderate quality evidence)
3. Inconclusive results for **length of stay** (moderate quality evidence)
4. Lower or comparable **readmissions** (low to moderate quality evidence)
5. Impact on **costs** was inconclusive (very low to low quality evidence).

# Benefits of virtual wards: summary

## Why virtual wards are being developed at scale

**There's a growing evidence base**

- Virtual wards are supported by a growing evidence base that demonstrates benefits for patients, staff and systems.
- **But** we know that there are gaps that we need to focus on

**Patient and staff experience is key in our early learning**

- Patients on virtual wards have comparable if not better outcomes than those treated in hospital, including improved quality of life measures.
- Patients have reported benefits including greater choice, personalised care, and being closer to family support networks, which can support recovery.
- Staff benefits include new training and career development opportunities, together with the chance to work in flexible and blended roles.

**We are continuing to evaluate the impact of virtual wards**

- Build on work from pilot site evaluations –based on the programme theory of change
- Feasibility studies codesigned with experts in quantitative analysts to develop methods of measuring impact
- Academic research for publication on NHS virtual wards, with a focus on equity and impact

# Definition

What a virtual ward is, and what it isn't

## virtual ward

ˈvəːtʃʊ(ə)l wɔːd

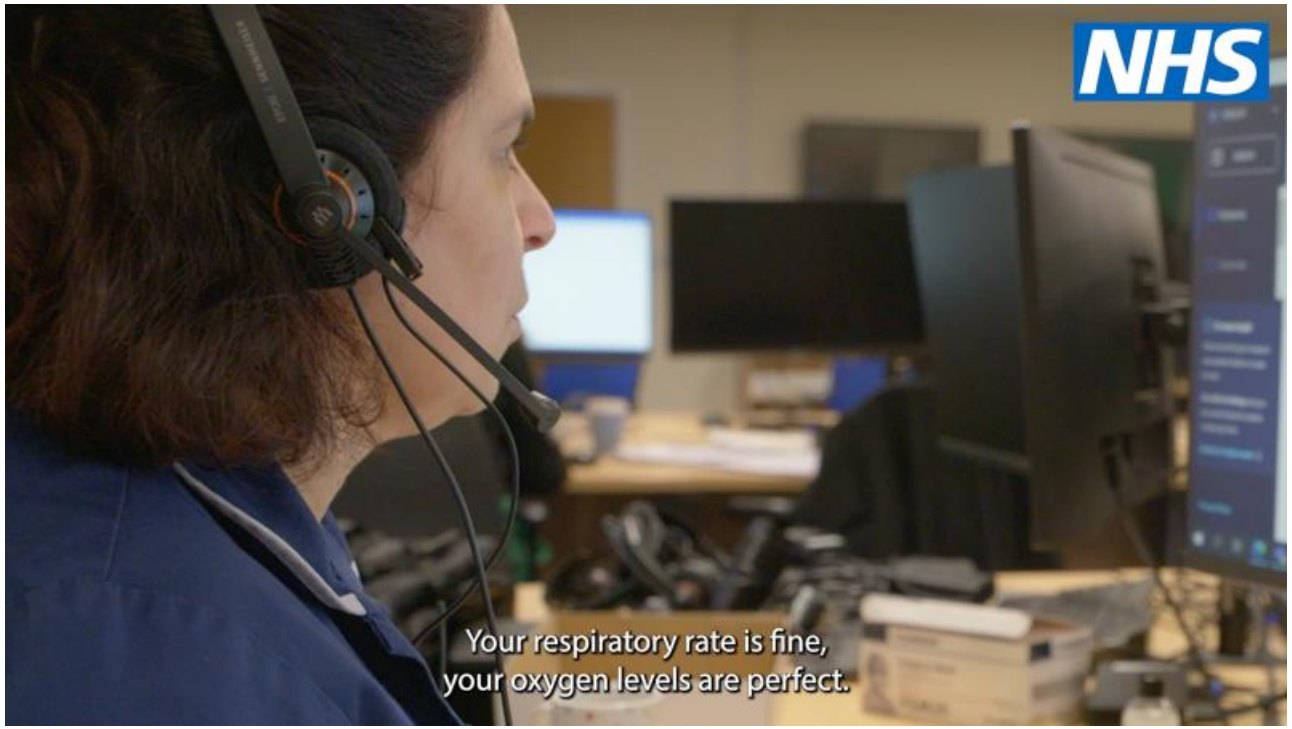
A virtual ward is a safe and efficient **alternative to NHS bedded care**.

Virtual wards support patients who would **otherwise be in hospital** to receive the acute care and treatment they need in their own home.

This includes either **preventing avoidable admissions** into hospital, or **supporting early discharge** out of hospital.

**NB:** A virtual ward **is not** a mechanism intended for enhanced primary care programmes; chronic disease management; home intravenous or infusion services; intermediate or day care; safety netting; or proactive deterioration prevention.

# Launch Video

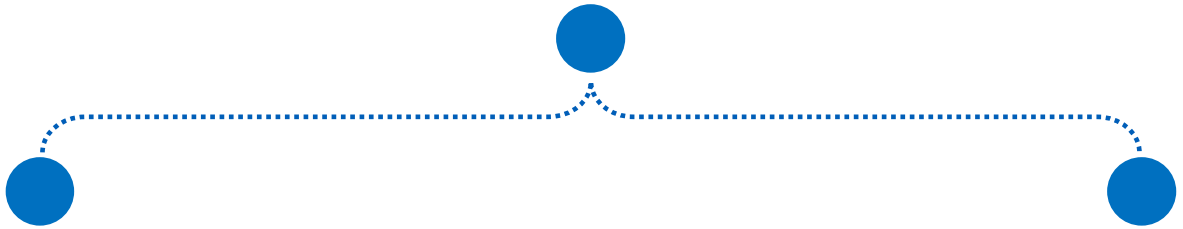


# Virtual wards in practice

## What different models look like, and what happens on a virtual ward

NHS England

**VIRTUAL WARDS**



| | Mostly remote | Mostly face-to-face |
|---|---|---|
| | *Based on technology-enabled remote monitoring and self-management, with minimal face-to-face provision* | *Based on a blended model of technology enablement with face-to-face provision (Hospital at Home)* |
| **What** | • Personalised remote monitoring (that may be digitally enabled), with supported self-management and escalation pathways | • Hybrid service model that blends digital monitoring and face-to-face care to support patients with acute needs |
| **How** | • Digital remote monitoring service, or suitable digital alternatives<br>• Early deterioration detection and recognition to trigger clinical input and responses from MDTs<br>• Patient and carer enablement to self-monitor with escalation routes | • Digital remote monitoring and relevant service enablement<br>• Care assessments, intervention planning and face-to-face support with senior clinical oversight and MDT support<br>• Delivering acute-level interventions (i.e. screening, diagnostics, prescription and medicines reconciliation, IV therapies) |
| **Who** | **ARI pathway**<br>• Adults with confirmed or suspected acute respiratory infections, who are stable or improving and are not living with moderate or severe frailty, but need ongoing monitoring | **Frailty pathway**<br>• Adults aged 65 and over who have been clinically assessed to be frail and are experiencing an episode that requires acute intervention |

# National ambition in England

What the national ambition is, and how development and delivery will be supported

## AMBITION AND RESOURCE

ICSs are asked to develop comprehensive plans and deliver virtual ward capacity equivalent to:

**40-50 virtual ward 'beds' per 100k population**

To support this two-year transformation, systems will have access to national SDF funding, covering:

**£200m for FY22/23**
**£250m (match-funded) for FY23/24**

Successful implementation will require systems to:

- maximise their overall bed capacity to include virtual wards
- prevent virtual wards becoming a new community-based safety netting service; they should **only be used for patients who would otherwise be admitted to an NHS acute hospital bed** or to facilitate early discharge
- maintain the most **efficient safe staffing** and caseload model
- manage length of stay in virtual wards through establishing clear **criteria to admit** and reside for services
- fully exploit **remote monitoring technology** and **wider digital platforms** to deliver effective and efficient care.

**Updated Winter Resilience focus**

- The NHS's recent letter on a winter resilience plan has a specific focus on managing demand and capacity.
- This includes a commitment to work with local areas to develop more bed capacity across the country, including through the use of virtual wards.
- As a result, the NHS has committed to working with local areas to increase the number of virtual wards
- ICSs are in the process of developing an additional 2,500 virtual ward 'beds' to support this winter, building on the current provision of virtual wards that already exist

"I think that should be the standard care, who wants to go to hospital, when you can have the people [matrons] to help you at home and get better while sleeping in your own bed!"

Virtual ward patient, Leeds Community Healthcare Trust

"Virtual wards summed up in one word?

Wellbeing"

Leigh Jones, virtual ward user

"We were over the moon when we realised we could have treatment at home rather than going to hospital. The service the team provided was second to none and he was so much better when he was discharged".

Relative of a virtual ward patient, Kent Community Health NHS Foundation Turst

"I would like to say a very big thank you for all your care, support and advice and monitoring me over the last few weeks.

I felt safe at home knowing I had the support, it was very much appreciated."

Virtual ward patient
The Royal Wolverhampton NHS Trust

# What next?

| | |
|---|---|
| Stabilise | • Continued focus on virtual wards with no change to commitment in 22/23 planning guidance<br>• Connected ways of working across national, regional and system to support local implementation<br>• Develop a sustainable approach to virtual ward for the future |
| Energise | • Shared Learning through Communities of Practice and Clinical Summits<br>• Connected networks to support improvement<br>• Creating the right resources to support implementation<br>• National Improvement Collaborative<br>• Development of future virtual ward pathways |
| Realise | • A focus on embedding virtual ward into system capacity and extending pathways<br>• Development of workforce to support the future of VW<br>• Using data driven approaches to support understanding what good looks like alongside peer reviews |

# Get involved

- Visit our website: england.nhs.uk/VirtualWards
- Community of practice – every Thursday at 12 noon register here Virtual Wards Community of Practice | NHS England Events
- Clinical summits – next is 24 November 2022 register here Virtual Wards Clinical Summit | NHS England Events
- Tweet using #VirtualWards
- Speak to our team: england.virtualward@nhs.net
- FutureNHS: future.nhs.uk/NationalVirtualWards/

# The NHS Virtual Wards Conference 2022

# UP NEXT...

Ortus-iHealth

# The NHS Virtual Wards Conference 2022

# SPEAKING NOW

Dr. Debashish Das

CEO

Ortus Solutions Limited

Nathan Roberts

Cardiology Clinical Network Manager

Barts Health NHS Trust

## We will discuss…

"The Pan London Cardiac Virtual Ward Deployment"

*Case Study:*

# The Pan London Elective Care Virtual Ward Deployment

Barts Health NHS Trust
Guy's and St Thomas' NHS Foundation Trust
Royal Brompton and Harefield hospitals
Imperial College Healthcare NHS Trust
King's College Hospital NHS Foundation Trust
St George's University Hospitals NHS Foundation Trust
Royal Free London NHS Foundation Trust

# Meet the Presenters

***Dr Debashish Das***

*Consultant Cardiologist &*
*St. Barts Cardiology Transformation Lead*
*(CEO of Ortus Solutions Limited)*

***Nathan Roberts***

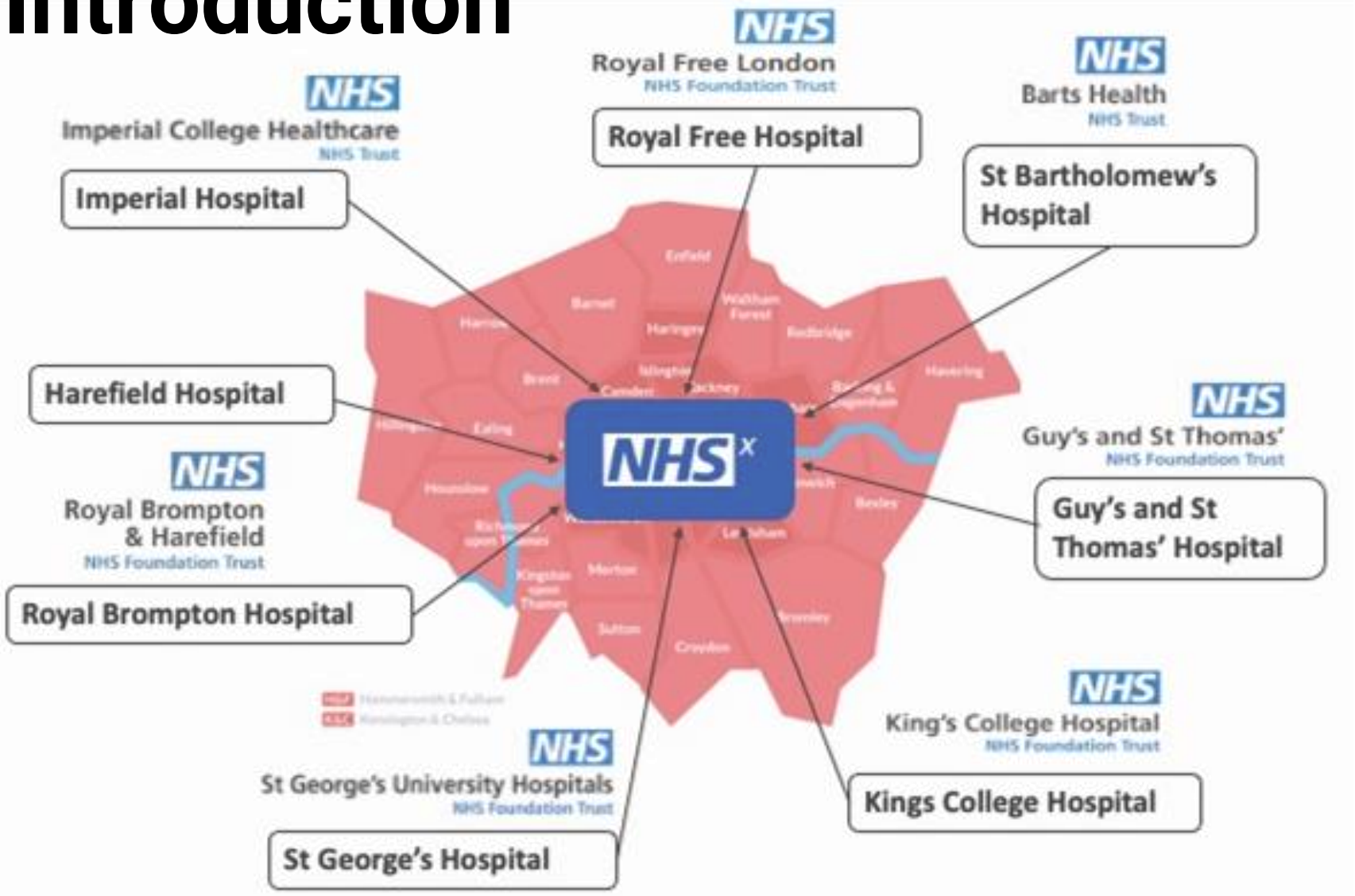
*Network Manager North London Cardiac*
*Operational Delivery Network*

Barts Health NHS Trust · Guy's and St Thomas' NHS Foundation Trust · Royal Brompton and Harefield hospitals · Imperial College Healthcare NHS Trust · King's College Hospital NHS Foundation Trust · St George's University Hospitals NHS Foundation Trust · Royal Free London NHS Foundation Trust

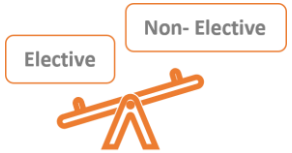
# Agenda

1. Introduction
2. Change Management
3. Technology as an enabler
4. Lessons Learned
5. In Summary
6. Q and A

# 1. An Introduction



# The Cardiac Challenge and Need




- Growing waiting list and backlog of elective care procedures.

- Siloed approach to delivering care across the region.

- Need for an efficient pre-operative phase, enhancing patients' experience and reducing avoidable cancellations.

- Need for effective patient prioritisation.

- Early discharge for patients' post-procedure.

# The Solution Overview

- Pan London deployment – of a Scalable and flexible platform, supporting Pathways, Specialties, ICSs and Regions.

- Automated pre-operative care plans, with pre-assessment forms, e-consent, nudge behaviour and reminders.

- Risk mitigation through configurable virtual ward dashboards, enabling patient prioritisation and early discharge

- Remote monitoring of patients, with 2-way communication for deteriorating patients.

# Cardiac Surgery Virtual Ward and Remote Monitoring

- We envisage the remote monitoring program will be able to facilitate three cohorts of patients.
  1) The surgical patient on an elective P2-P4 waiting list pathway
  2) The semi-acute patient who can be discharged into a virtual ward to wait at home for their surgery with a semi-urgent date given
  3) Facilitate early discharge of post-operative surgical patients
- Cohorts 2/3 were optional dependent on staffing and willingness
- The immediate priority was for the first cohort, however implementation of remote monitoring in cohort two/three would facilitate much needed early discharge and increase bed capacity.
- Cohort 1: This is split into patients who are:
  - ***Currently were already on the waiting list***
  - ***Those added prospectively***

Barts Health NHS Trust · Guy's and St Thomas' NHS Foundation Trust · Royal Brompton and Harefield hospitals · Imperial College Healthcare NHS Trust · King's College Hospital NHS Foundation Trust · St George's University Hospitals NHS Foundation Trust · Royal Free London NHS Foundation Trust

# 2. Change Management

- Task & Finish Groups were identified in each site
- **Unified Patient Pathway & SOP agreed across sites:**
- Patient Information Sheet and Communication letter standardised through NHS Coms teams. Approved & Shared
- Only variance between sites: Virtual Ward/Patient list segmentation
- Efforts made to improve pre-operative phase on each site using other digital tools:
  - Digital Pre-assessment form (standardised across each site)
  - Patient digital library (PDFs/video)
  - eConsent
  - PROMs/PREMs

Barts Health NHS Trust · Guy's and St Thomas' NHS Foundation Trust · Royal Brompton and Harefield hospitals · Imperial College Healthcare NHS Trust · King's College Hospital NHS Foundation Trust · St George's University Hospitals NHS Foundation Trust · Royal Free London NHS Foundation Trust

# Pathway SOP: Elective Cardiac list

The Elective Cardiac Surgery Patient Cohort is defined as those patients on an elective cardiac surgery waiting list, who are appropriate for adding to a virtual ward for remote monitoring throughout their pathway.

Current waiting list will be batch uploaded on to Ortus (save admin time) but each site will supplement with a posted letter and patient information sheet explaining the pathway

Prospective patients: The hospital team will onboard the patients who are listed for surgery onto the Ortus Platform within 4-weeks of being listed for surgery

Patients will be prompted to submit a **‘Cardiac Surgery Waiting List: Symptoms Checker’** questionnaire twice a week, on a **Monday and a Thursday before 11am.**

Additionally, patients can input symptoms freely into the Ortus App that can be reviewed by Hospital Teams in a Virtual Ward and Patient Profile.

Barts Health NHS Trust
Guy’s and St Thomas’ NHS Foundation Trust
Royal Brompton and Harefield hospitals
Imperial College Healthcare NHS Trust
King’s College Hospital NHS Foundation Trust
St George’s University Hospitals NHS Foundation Trust
Royal Free London NHS Foundation Trust

# Pathway SOP: Ward Round Tasks

Ward Round Tasks (allocate additional time for Mondays and Thursdays post-patient questionnaires)

1. Review that all patients in a Virtual Ward(s) have submitted their questionnaire responses (directly in the Virtual Ward).

2. Send a reminder/message to all those patients who have not submitted a questionnaire response (through the Ortus messaging functionality in the Virtual Ward).

3. Action Red Flags (in-line with ‘Red Patient’ escalation plans below).

4. Action Amber Flags (in-line with ‘Amber Patient’ escalation plans below

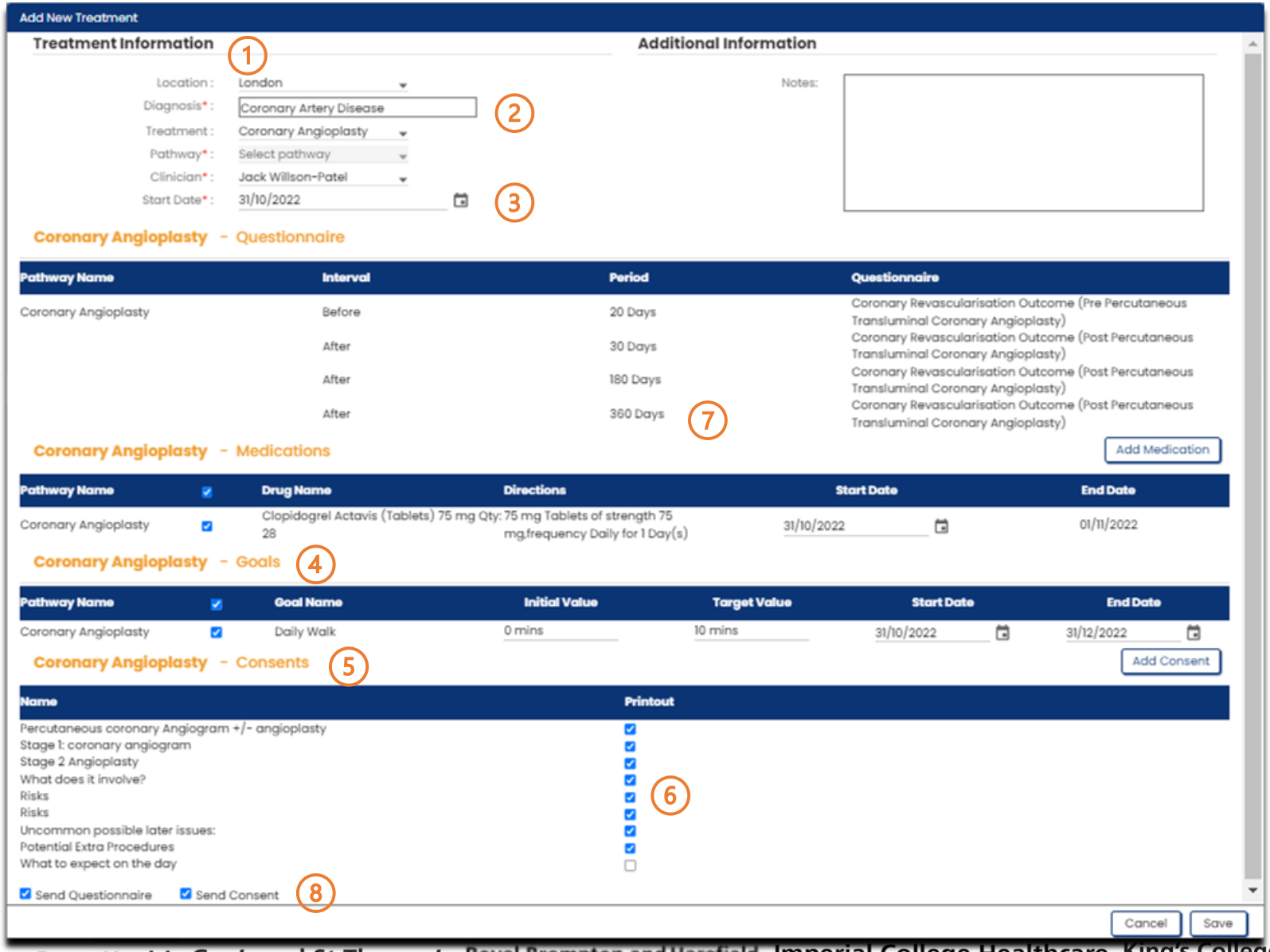
# 3. Technology as an Enabler

- Provide structured **configurable Virtual Ward Dashboards** to monitor those on an elective waiting list, **enabling patient prioritisation**.

- Virtual Ward Dashboards **supporting and facilitating early discharge**, with **remote monitoring** to **identify deteriorating patients early**.

- Dashboards providing a **central hub** to communicate with patients, with **integrated telehealth** functionality, including **Video Conferencing**, and **Asynchronous Messaging** for both individuals and groups.

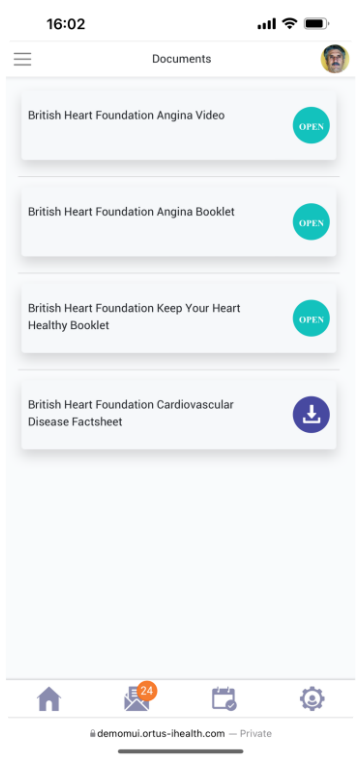
# Treatment Pathways And Care Plans - Automated

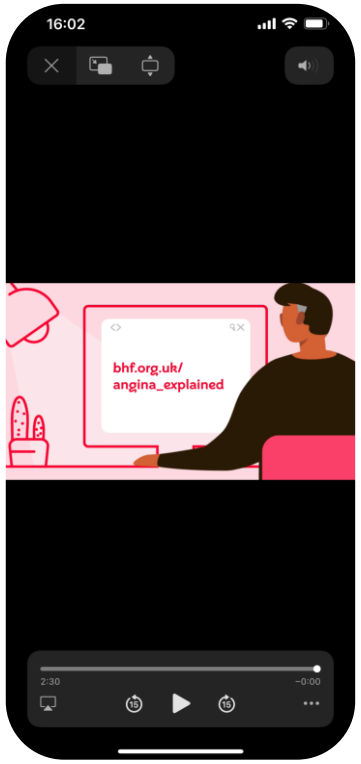



- Treatment pathway/care plan is configured in Ortus and associated with a diagnosis.
- Patient is added to a treatment or pathway with the matching diagnosis.
- Clinician inputs: Location, Diagnosis, Start Date, Clinician.
- Patient receives: Condition information, Questionnaires, Goals/Tasks, Medication reminders.
- Configured eConsent is sent to the patient for completion and sign-off.
- Live View and PDF of patient responses are sent back to Hospital team.
- Automated delivery of follow-up questionnaires for PROMs/PREMs.
- Hospital team can review responses and prioritise patients.

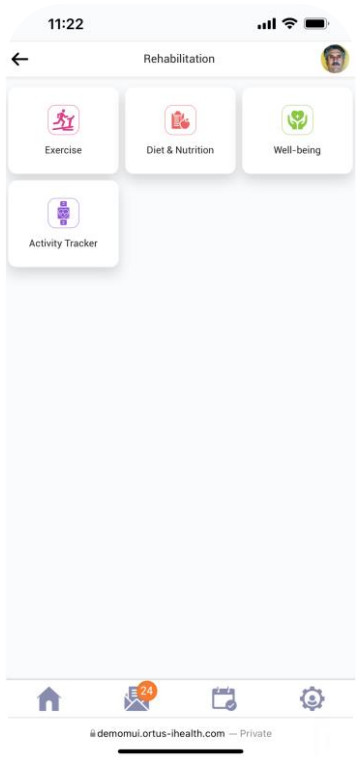
Barts Health NHS Trust · Guy's and St Thomas' NHS Foundation Trust · Royal Brompton and Harefield hospitals · Imperial College Healthcare NHS Trust · King's College Hospital NHS Foundation Trust · St George's University Hospitals NHS Foundation Trust · Royal Free London NHS Foundation Trust

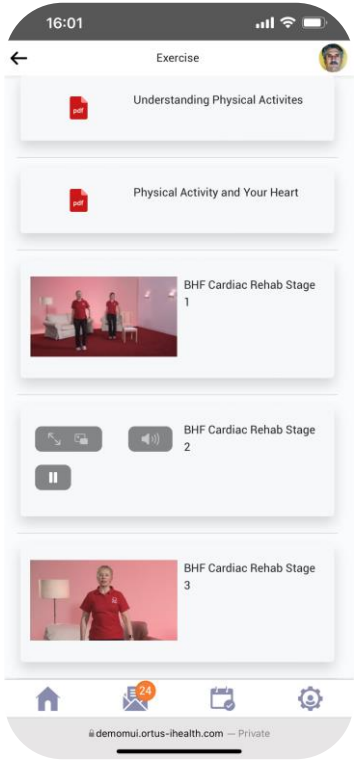
# Patient Support and Self-Management

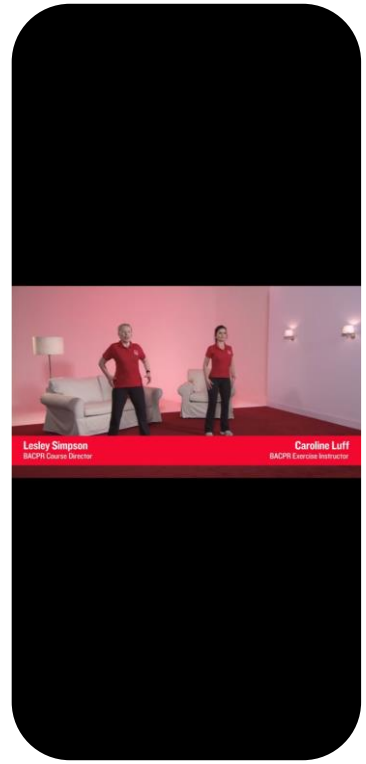






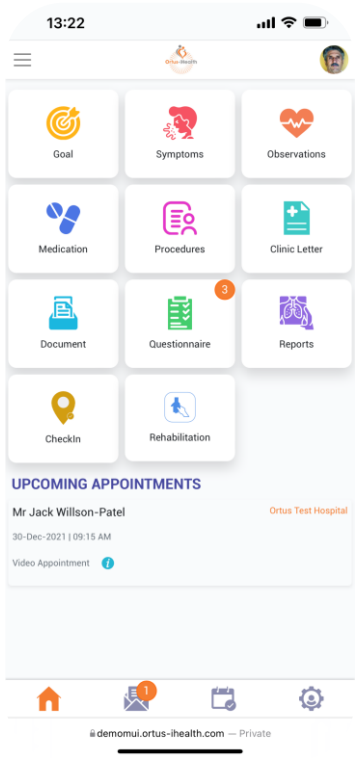




Customisable Patient Education Libraries

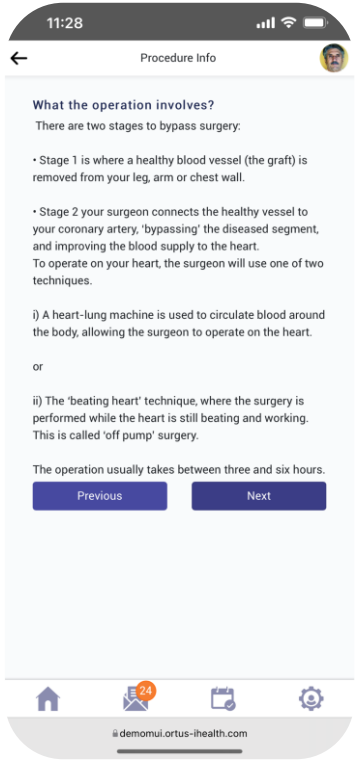
Condition-focussed Rehabilitation Documents

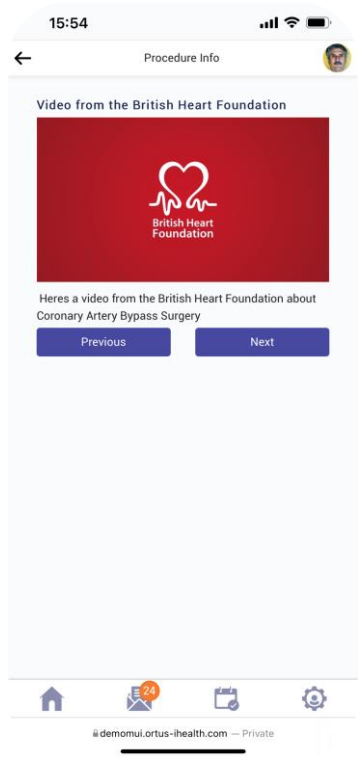
NHS Barts Health NHS Trust
NHS Guy's and St Thomas' NHS Foundation Trust
NHS Royal Brompton and Harefield hospitals
NHS Imperial College Healthcare NHS Trust
NHS King's College Hospital NHS Foundation Trust
NHS St George's University Hospitals NHS Foundation Trust
NHS Royal Free London NHS Foundation Trust

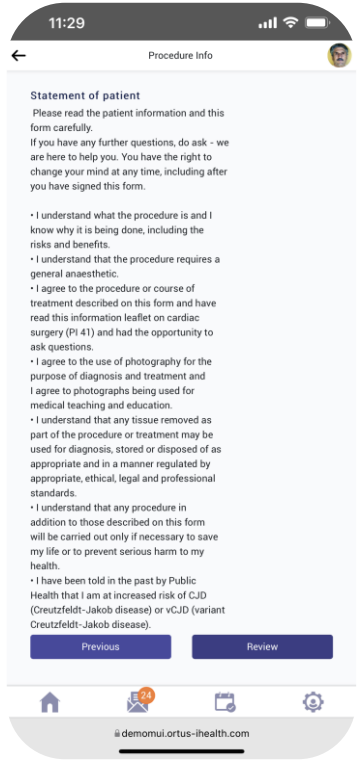
# Digitally enhanced Peri-Operative Phase

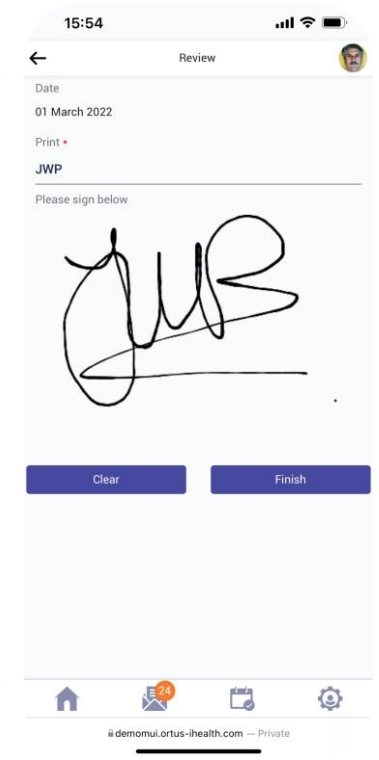






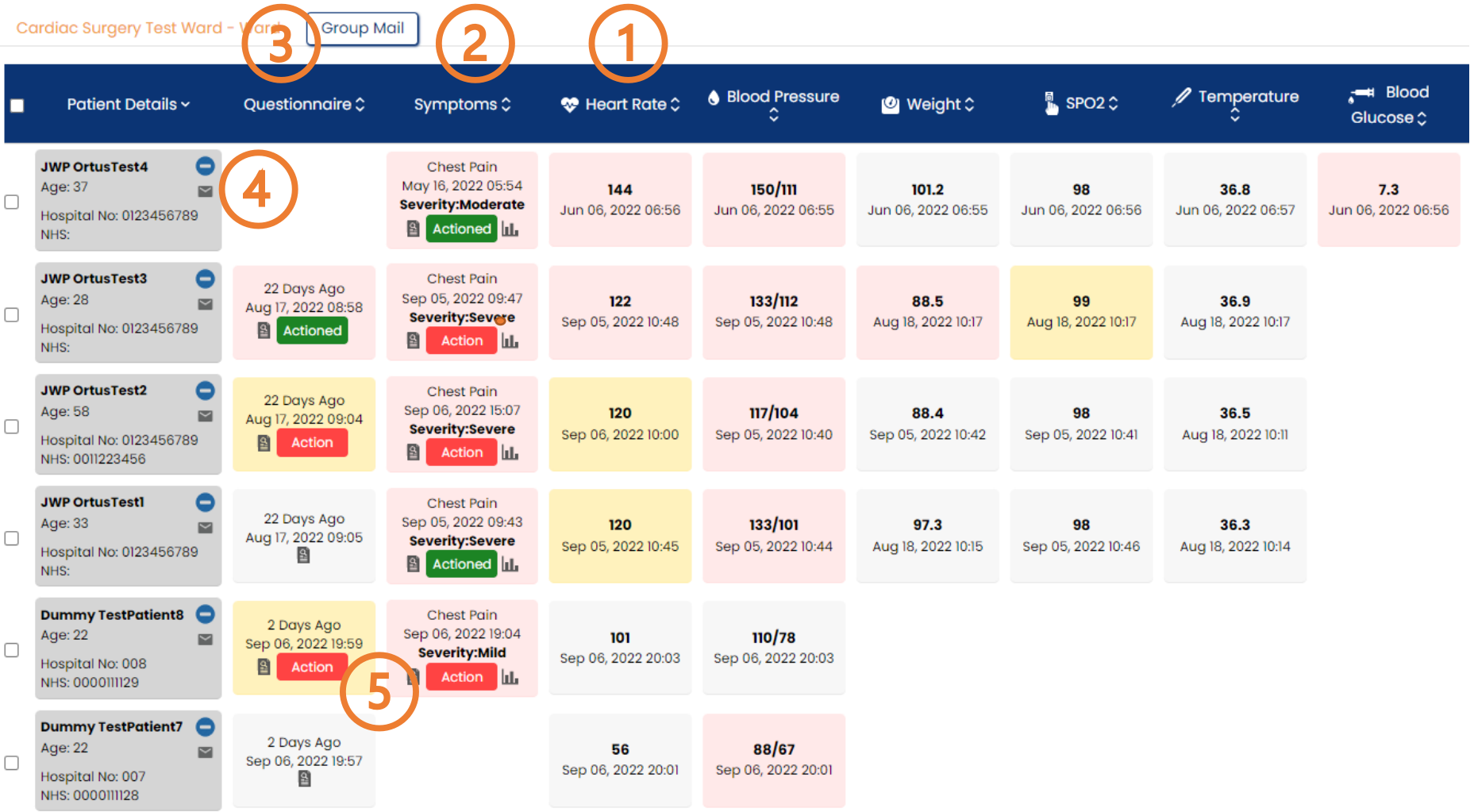

Pre-Assessment Questionnaires

Automated Care plans

Configurable and sharable E-Consent

Barts Health NHS Trust
Guy's and St Thomas' NHS Foundation Trust
Royal Brompton and Harefield hospitals
Imperial College Healthcare NHS Trust
King's College Hospital NHS Foundation Trust
St George's University Hospitals NHS Foundation Trust
Royal Free London NHS Foundation Trust

# Configurable And Scalable Virtual Ward Dashboards




1. Observations Tracking

2. Symptoms Monitoring

3. Deteriorating patient questionnaire

4. Templated Individual and Group Messaging

5. Prioritise Patients and Take Action

NHS Barts Health NHS Trust
NHS Guy's and St Thomas' NHS Foundation Trust
NHS Royal Brompton and Harefield hospitals
NHS Imperial College Healthcare NHS Trust
NHS King's College Hospital NHS Foundation Trust
NHS St George's University Hospitals NHS Foundation Trust
NHS Royal Free London NHS Foundation Trust

# Pathway SOP: Escalation Plans

## Red Patients

Identified patients should be reviewed within 1 working day & discussed with the responsible Consultant for the patient.

## Amber Patients

Identified patients should be reviewed within 2 working days.

If patients have not submitted a questionnaire response within **1-month** from being registered on the Ortus Platform or have had **> month of inactivity** from previously submitting answers, then the Hospital Team should contact that patient directly by phone.

# 4. Lessons Learned and Future Opportunities

- **What has been key to success to date:**
  - At a concept level, there has been a high level of enthusiasm from the teams engaged with across the deployment sites
  - Recognising and understanding that any concerns raised to date are valid e.g., with workforce concerns
  - Early identification of Task and Finish Groups, Key Stakeholders, and associated roles
  - Development of SOPs to support standardised change management process across sites
  - Staff training process, focussing on current use case, enabling discussions for future opportunities using Ortus
  - Patient onboarding and engagement process, including patient awareness and management of transfer to new system
- **Future opportunities identified to date:**
  - Further standardisation of patient care and resources across semi-acute patient lists (within cardiology) e.g., with remote patient monitoring hub at ICHT
  - Further opportunities to support a pan-London approach to supporting different condition areas e.g., through a centralised LHCRE

# Question 1

What have been the challenges & lessons that you have gained during the implementation of a digital solutions across multiple trust/ the cardiac network?

- Repeated IG/DP processes
- Introduction of new workforce models and resourcing
- Key SOPs across network
- High levels of enthusiasm from team involved
- Effectiveness of the Clinical Council Model with procurement
- Concerns over patient safety
- Engagement of site CTOs at an early stage
- Early identification of Task and Finish Groups
- Great opportunity for multi-approach evaluation
- Importance of OneLondon LHCRE

Barts Health NHS Trust · Guy's and St Thomas' NHS Foundation Trust · Royal Brompton and Harefield hospitals · Imperial College Healthcare NHS Trust · King's College Hospital NHS Foundation Trust · St George's University Hospitals NHS Foundation Trust · Royal Free London NHS Foundation Trust

# Question 2

Based upon your learning so far, how might we best support patient onboard, engagement and empowerment to retain high levels of patient activation?

- Established comms plan (multi-medium)
- Key patient information pre-onboarding (pre-hab and rehab)
- Clear avenues for support (technical vs. clinical)
- SOPs for patient follow-up for non-engaging patients
- Clear applicable patient cohorts (elective vs. semi-acute)
- Accessible resources = patient self-management and PIFU
- Enablement of self-registration
- Continuous and automated collection of patient and staff feedback
- Forms a key part of the UCLP evaluation
- UAT and UCD with platform design (staff and patient focussed)

NHS Barts Health NHS Trust
NHS Guy's and St Thomas' NHS Foundation Trust
NHS Royal Brompton and Harefield hospitals
NHS Imperial College Healthcare NHS Trust
NHS King's College Hospital NHS Foundation Trust
NHS St George's University Hospitals NHS Foundation Trust
NHS Royal Free London NHS Foundation Trust

# Question 3

What is the expected or seen impact of digital solutions on Cardiac Network performance, waits and patient outcomes; and how might we sell the benefits to other cardiac networks?

- Increased patient uptake on RPM solution
- Early identification of deteriorating patients
- Effective patient prioritisation
- Improved efficiency for waiting list management
- Scalability of project across specialties, models of care
- Improved patient satisfaction
- Improved clinical outcomes
- Reduction in unplanned admissions and bed days
- Removal of cross-site variation with SOPs
- Enhanced patient to care provider connection and communication

NHS Barts Health NHS Trust
NHS Guy's and St Thomas' NHS Foundation Trust
NHS Royal Brompton and Harefield hospitals
NHS Imperial College Healthcare NHS Trust
NHS King's College Hospital NHS Foundation Trust
NHS St George's University Hospitals NHS Foundation Trust
NHS Royal Free London NHS Foundation Trust

# Pan-London Deployment – Onboarding and Activation

| Deployment Site | Go-Live Date | Total Patients Onboarded | Total Patients Activated | Total Patients Activated % | Total Patients Escalated and Treatments Brought Forward |
|---|---|---|---|---|---|
| Harefield Hospital | 07-Sep-22 | 396 | 310 | 78% | 8 |
| St Bartholomew's Hospital | 16-Sep-22 | 413 | 329 | 80% | 18 |
| Royal Brompton Hospital | 22-Sep-22 | 262 | 169 | 65% | 17 |
| St Thomas' Hospital | 07-Oct-22 | 65 | 44 | 68% | 2 |
| **Totals** | | 1136 | 852 | 75% | 45 |

Barts Health NHS Trust · Guy's and St Thomas' NHS Foundation Trust · Royal Brompton and Harefield hospitals · Imperial College Healthcare NHS Trust · King's College Hospital NHS Foundation Trust · St George's University Hospitals NHS Foundation Trust · Royal Free London NHS Foundation Trust

# Challenges to date

- **Scale and engagement** across multiple sites.
- **Procurement process** and specification definition.
- **Expertise and new challenges** of delivering digital projects.
- **Time and new ways of working** for Hospital Teams.
- **Repetitive Information Governance process** across the deployment sites.
- **New experience for patient groups** with concerns/queries from patients

# Key Successes

- **Implementation of deployment and escalation SOPs** across networks.
- **Clinical expertise, engagement, and shared vision** from Hospital Teams, Transformation Leads, and Ortus.
- **Regular communication and clear feedback channels** between Hospital Teams and Ortus.
- **Clear instructions for patients** with onboarding experience
- **Early-stage feedback has been positive,** with constructive criticism enabling shared learnings and opportunity for improvements.

Barts Health NHS Trust · Guy's and St Thomas' NHS Foundation Trust · Royal Brompton and Harefield hospitals · Imperial College Healthcare NHS Trust · King's College Hospital NHS Foundation Trust · St George's University Hospitals NHS Foundation Trust · Royal Free London NHS Foundation Trust

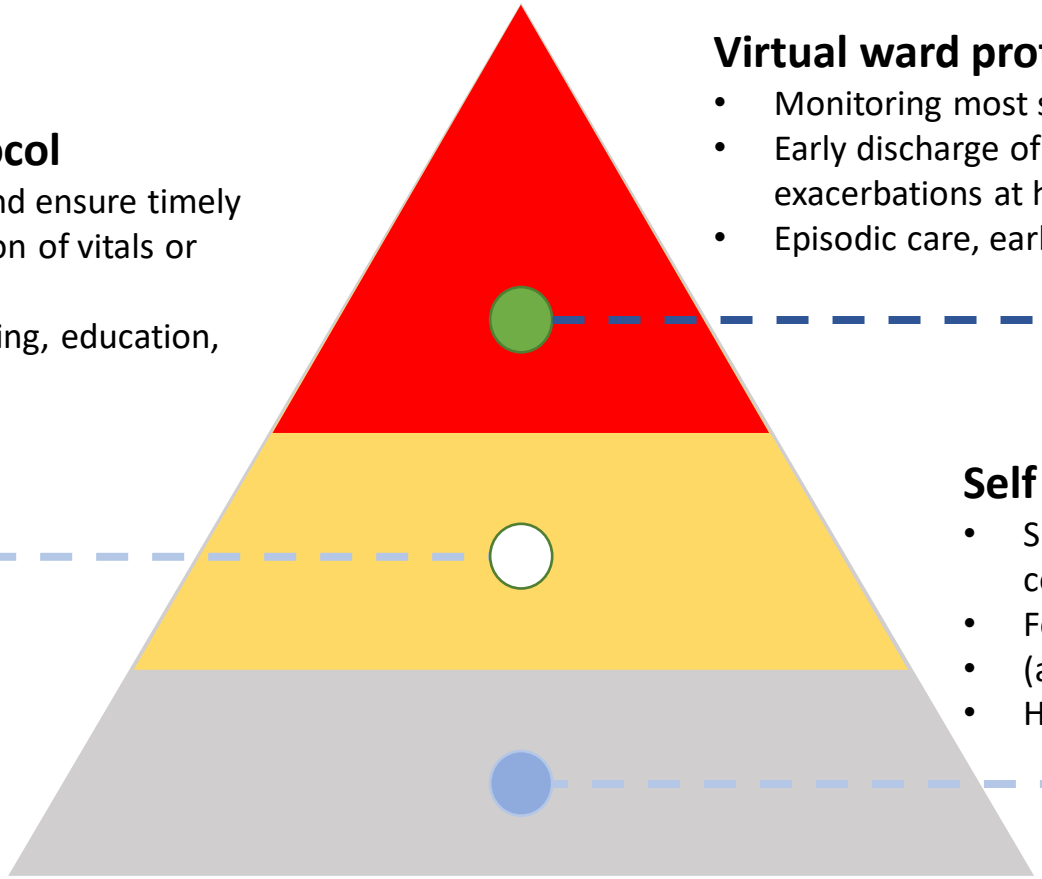
# 5. In Summary

# Managing the Complete Population

**Different Protocols and support depending on the severity of the condition**

### Remote patient support protocol

- Aiming to reduce in person visits and ensure timely interventions in case of deterioration of vitals or symptoms
- Digital care pathways with monitoring, education, Coaching and contact
- Chronic and epidural episodic care
- Hospital or GP practice led



### Virtual ward protocol

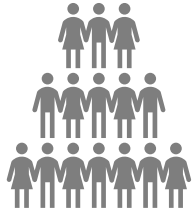
- Monitoring most severe patients Connie, clinical bed at home
- Early discharge of patients to recover at home or managing exacerbations at home with frequent remote patient monitoring
- Episodic care, early discharge, hospital lead (acute care)

### Self care protocol

- Supporting patients to cope with their disease and coax them in self management
- Focused on prevention
- (auto) triage, screen and (automated) Coaching
- Hospital, GP practice or patient lead

Barts Health NHS Trust · Guy's and St Thomas' NHS Foundation Trust · Royal Brompton and Harefield hospitals · Imperial College Healthcare NHS Trust · King's College Hospital NHS Foundation Trust · St George's University Hospitals NHS Foundation Trust · Royal Free London NHS Foundation Trust

# Patient at Low Risk/Acuity on List

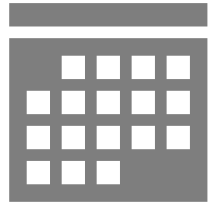



75 - 300

Monitoring List

Standard

Device kit



Monthly

Monitoring

Long Term Monitoring

& LTC Teams

Barts Health NHS Trust
Guy's and St Thomas' NHS Foundation Trust
Royal Brompton and Harefield hospitals
Imperial College Healthcare NHS Trust
King's College Hospital NHS Foundation Trust
St George's University Hospitals NHS Foundation Trust
Royal Free London NHS Foundation Trust

# Patient at Medium Risk/Acuity Virtual Bed


20-50

Virtual ward

Appropriate Monitoring

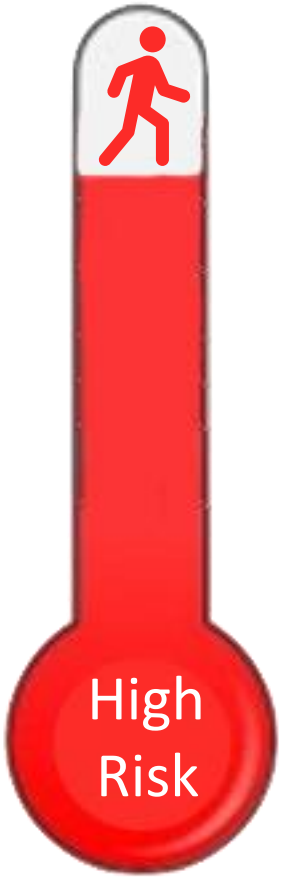
2 Reviews Per week

For X weeks

Multi-disciplinary team

Barts Health NHS Trust · Guy's and St Thomas' NHS Foundation Trust · Royal Brompton and Harefield hospitals · Imperial College Healthcare NHS Trust · King's College Hospital NHS Foundation Trust · St George's University Hospitals NHS Foundation Trust · Royal Free London NHS Foundation Trust

# Patient at High Risk/Acuity in Virtual Bed




10-40

Virtual ward

Premium monitoring

7 x 24h x 14d

Monitoring

Multi-disciplinary team

**Frailty, Heart Failure at Home, ARI**

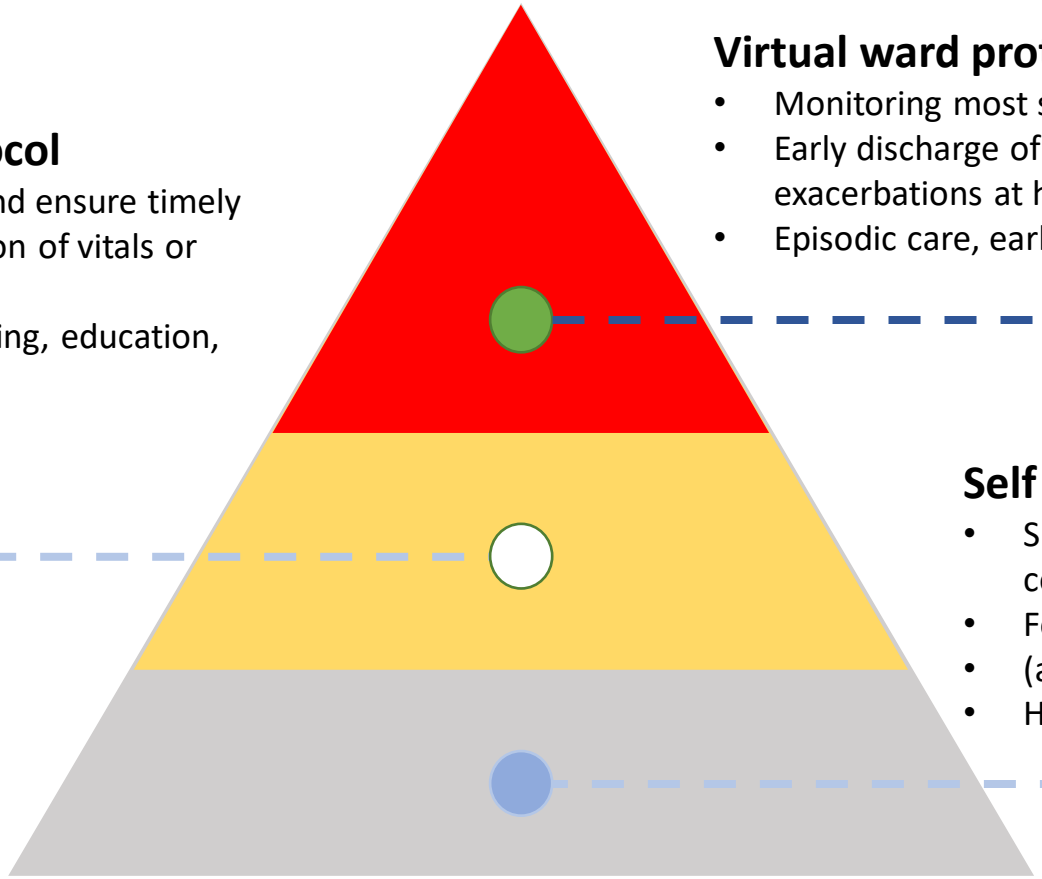
Barts Health NHS Trust · Guy's and St Thomas' NHS Foundation Trust · Royal Brompton and Harefield hospitals · Imperial College Healthcare NHS Trust · King's College Hospital NHS Foundation Trust · St George's University Hospitals NHS Foundation Trust · Royal Free London NHS Foundation Trust

# Managing the Complete Population

**Different Protocols and support depending on the severity of the condition**

### Remote patient support protocol

- Aiming to reduce in person visits and ensure timely interventions in case of deterioration of vitals or symptoms
- Digital care pathways with monitoring, education, Coaching and contact
- Chronic and epidural episodic care
- Hospital or GP practice led



### Virtual ward protocol

- Monitoring most severe patients Connie, clinical bed at home
- Early discharge of patients to recover at home or managing exacerbations at home with frequent remote patient monitoring
- Episodic care, early discharge, hospital lead (acute care)

### Self care protocol

- Supporting patients to cope with their disease and coax them in self management
- Focused on prevention
- (auto) triage, screen and (automated) Coaching
- Hospital, GP practice or patient lead

Barts Health NHS Trust · Guy's and St Thomas' NHS Foundation Trust · Royal Brompton and Harefield hospitals · Imperial College Healthcare NHS Trust · King's College Hospital NHS Foundation Trust · St George's University Hospitals NHS Foundation Trust · Royal Free London NHS Foundation Trust

# Q & A

Barts Health NHS Trust
Guy's and St Thomas' NHS Foundation Trust
Royal Brompton and Harefield hospitals
Imperial College Healthcare NHS Trust
King's College Hospital NHS Foundation Trust
St George's University Hospitals NHS Foundation Trust
Royal Free London NHS Foundation Trust

# The NHS Virtual Wards Conference 2022

# UP NEXT...

ascom

# The NHS Virtual Wards Conference 2022

# SPEAKING NOW

Sophie Evans

Clinical Consultant

Ascom

Fiona Kirk

Clinical Consultant

Ascom

## We will discuss…

"Are Virtual Wards just for the community setting?"

# Virtual Wards

## Supporting proactive care inside & outside of the hospital

Sophie Evans – Clinical Consultant

Fiona Kirk- Clinical Sales Consultant

ascom

# Ascom Healthcare Platform

## Who are we?

- A global clinical solutions provider focused on healthcare ICT and mobile workflow solutions.

- Mission is to provide mission-critical, real-time solutions for highly mobile, ad hoc, and time-sensitive environments

ascom

# Our Vision

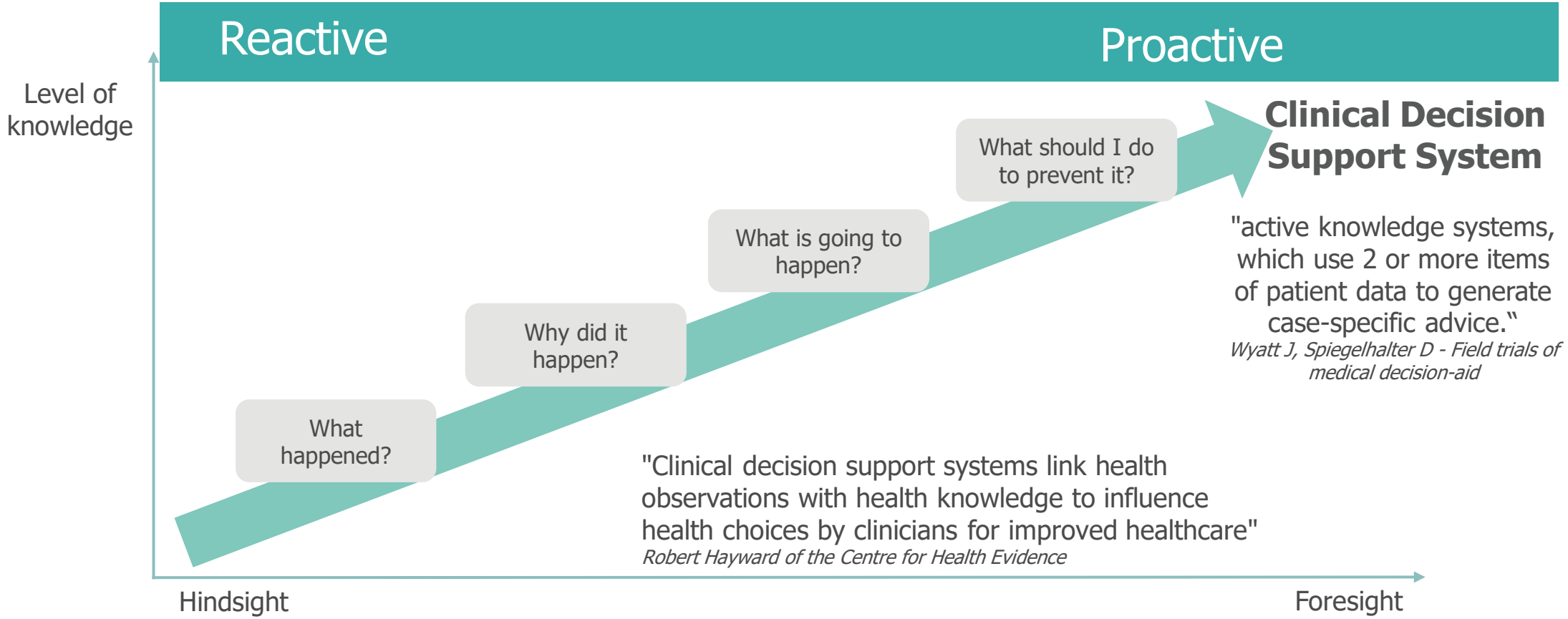
Supporting proactive care
inside & outside of the hospital

# Challenges

- Capacity challenges
- Lack of visibility
- Information silos
- Lack of understanding of what technology can do
- Old care processes

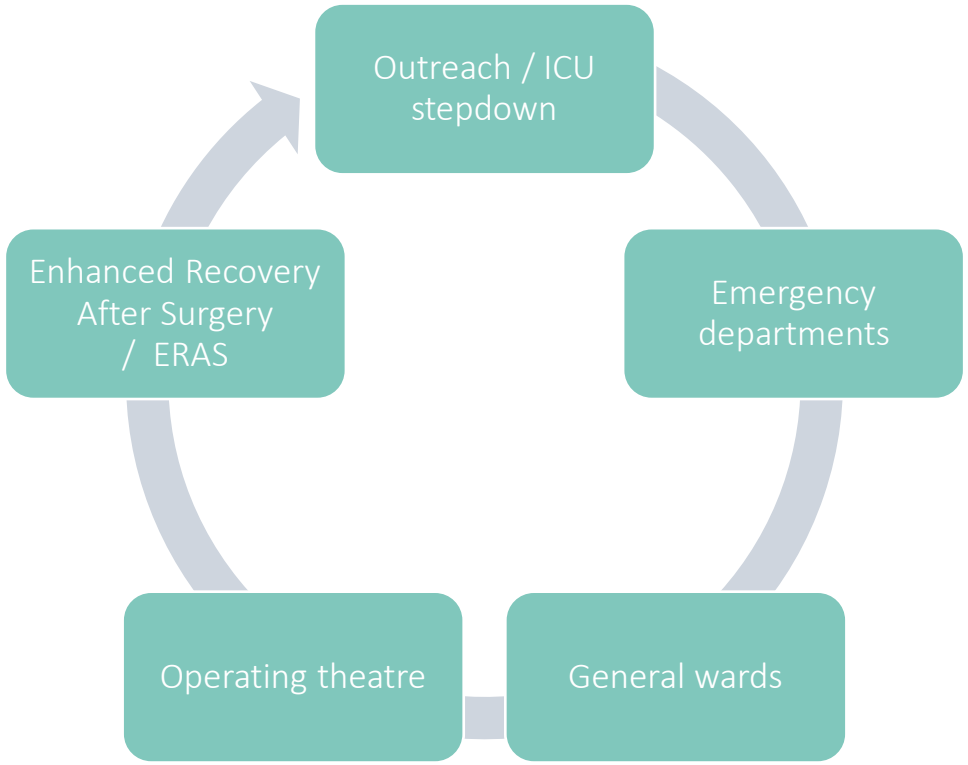
# From Reactive Care to Proactive Care

## Supporting care with a foresight approach



# Patient Flow Optimisation

## Enhancement of patient care




# The benefits

- ❑ Improve clinician experience
- ❑ Lower healthcare costs
- ❑ Optimise patient outcomes
- ❑ Enhance patient experience

Enhance patient experience

Improved clinical experience

Optimise outcomes

Lower healthcare costs

# Clinical decision support system (CDSS)

## Detection of patient deterioration (sepsis) in Emergency Department

**Challenges**

- Sepsis is a medical emergency
- Early recognition and care
- Sepsis is common, between 2%-13% of encounters (ED)
- Delayed treatment dramatically worsens outcome

**Benefits**

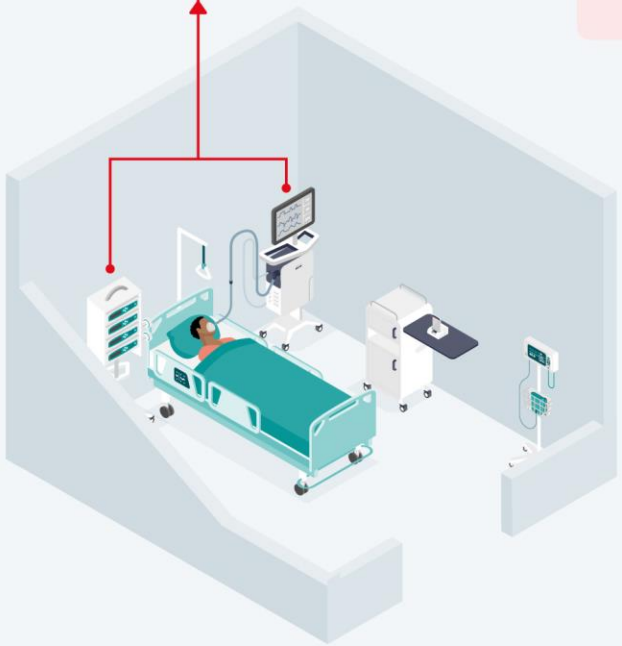
- Reduces risk of missing critical patient alerts
- Helps improve response time to critical patient events
- Alerts delivered in near real time identifying critical alarms

CDSS detects the SIRS criteria
Alert notification sent to mobile of assigned nurse

Assigned nurse accepts alert and takes responsibility for action

Assigned nurse can see details of alert notification

Alert also displayed on dashboard in central area



Assigned nurse immediately informs duty doctor

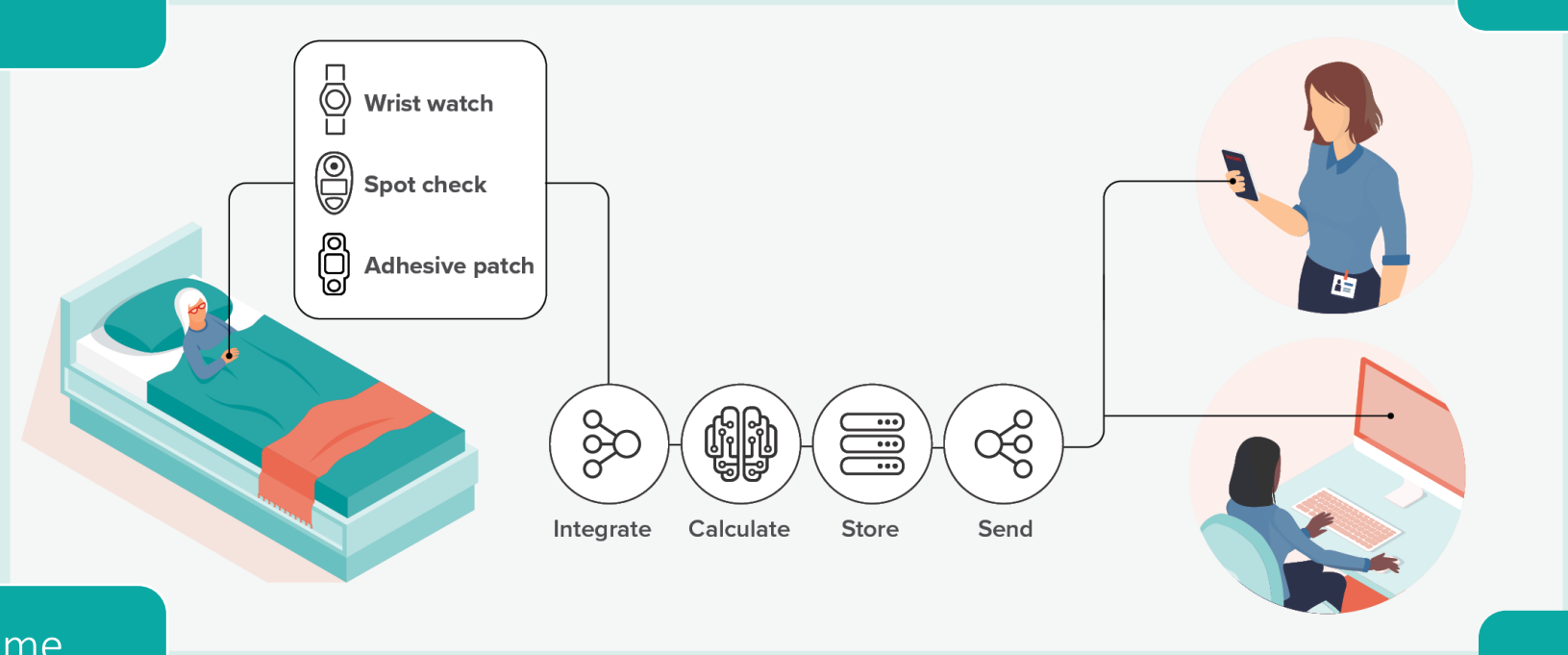
Duty doctor and assigned nurse go to patient bedside to plan care

ascom

# The Ascom Healthcare Platform

Visibility

Live patient data




Near-real-time alerting

Vendor neutral



ascom

# Partners Ecosystem

Sensors are chosen according to needs and related parameters be to be monitored

**Supported**

| Vendor | Device | Parameters (simplified) |
|---|---|---|
| BioFourmis | Everion V1 | |
| iHealth | PO3 | |
| | BP5/BP5s | |
| | KN-550BT | |
| VivaLnk | VV330 | |
| | VV200 | |
| Oxitone | 1000M | |
| GIMA | TempSitter | |
| | Gemini | |
| Vitalograph | Lung Monitor | |

**Others (non exhaustive)**

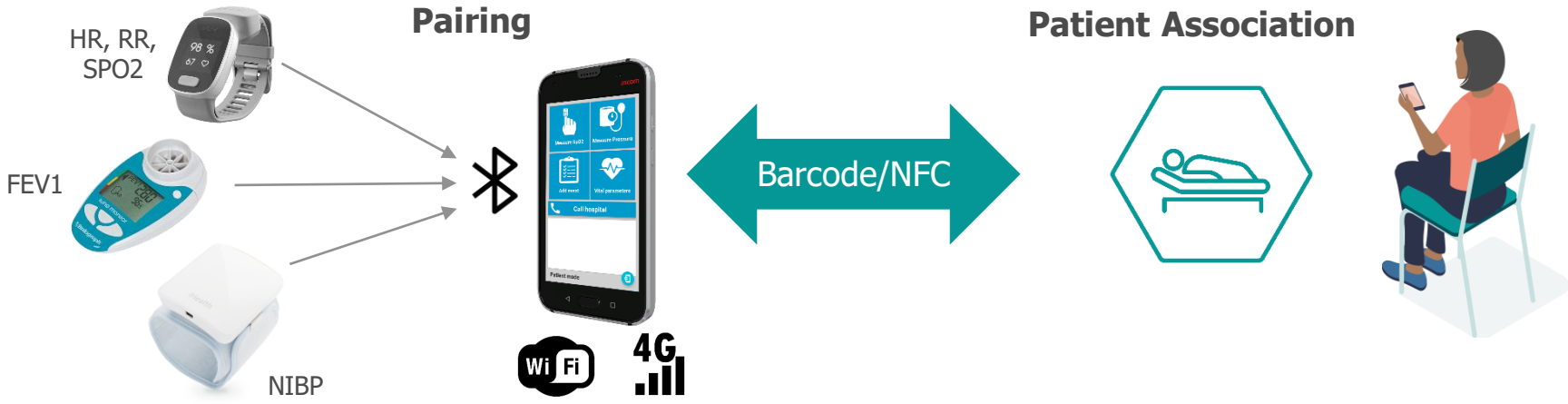
| Vendor | Device | Parameters (simplified) |
|---|---|---|
| Caretaker Medical | Caretaker | |
| Masimo | Radius 7 | |
| | Radius PCG/PPG | |
| | Centroid | |
| Omron | HeartGuide | |
| Qardio | Core | |
| Sotera Wireless | VISI | |
| TechMedic | Dyna-vision + CasperPatch | |
| The Surgical Company | SensiumPatch | |
| VitalConnect | VitalPatch | |

ascom

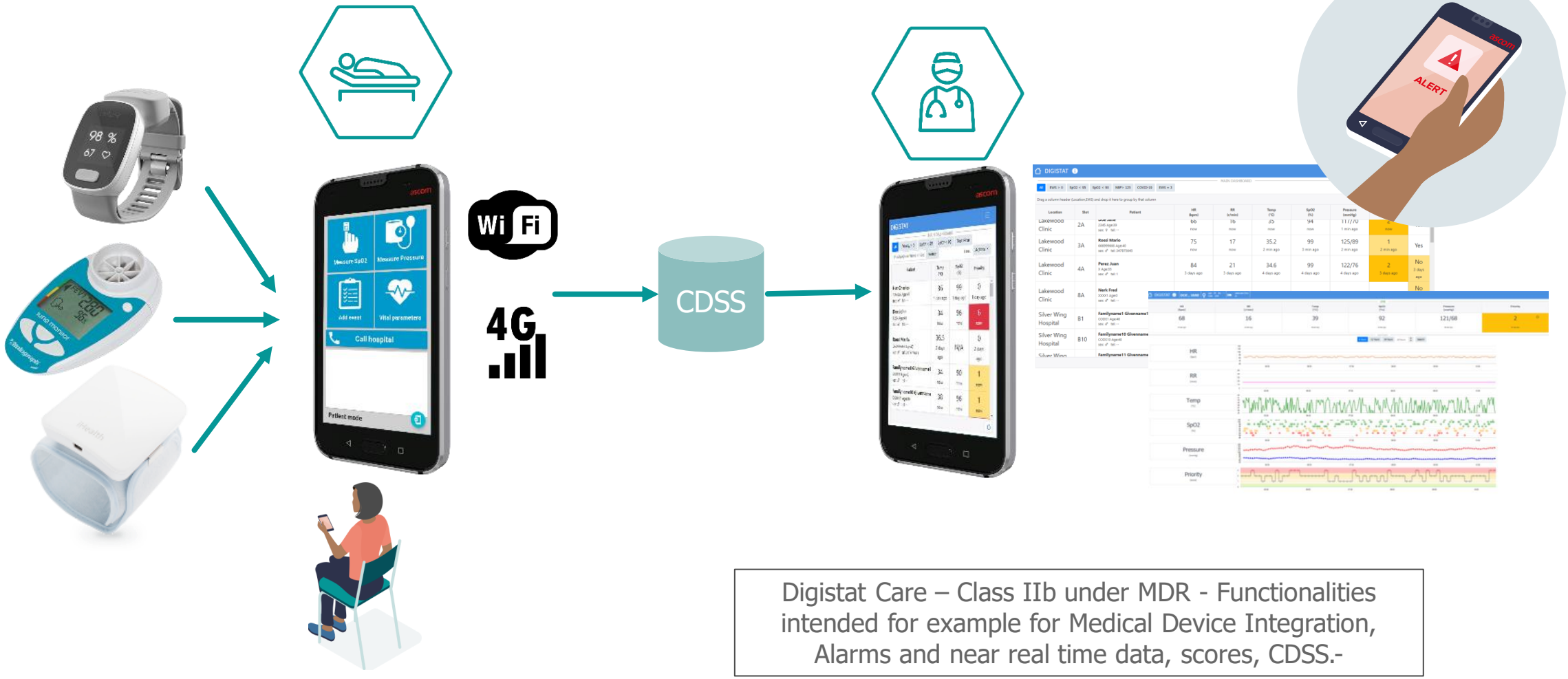
# Integration phase

## Main elements and patient-device association process

**Integration process**



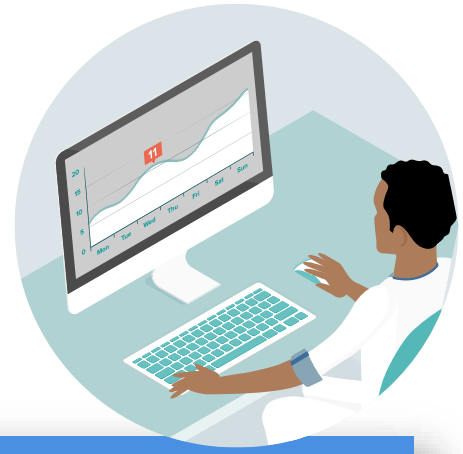
# Wearables solution




Digistat Care – Class IIb under MDR - Functionalities intended for example for Medical Device Integration, Alarms and near real time data, scores, CDSS.-

# Smart Monitor Web- Dashboards

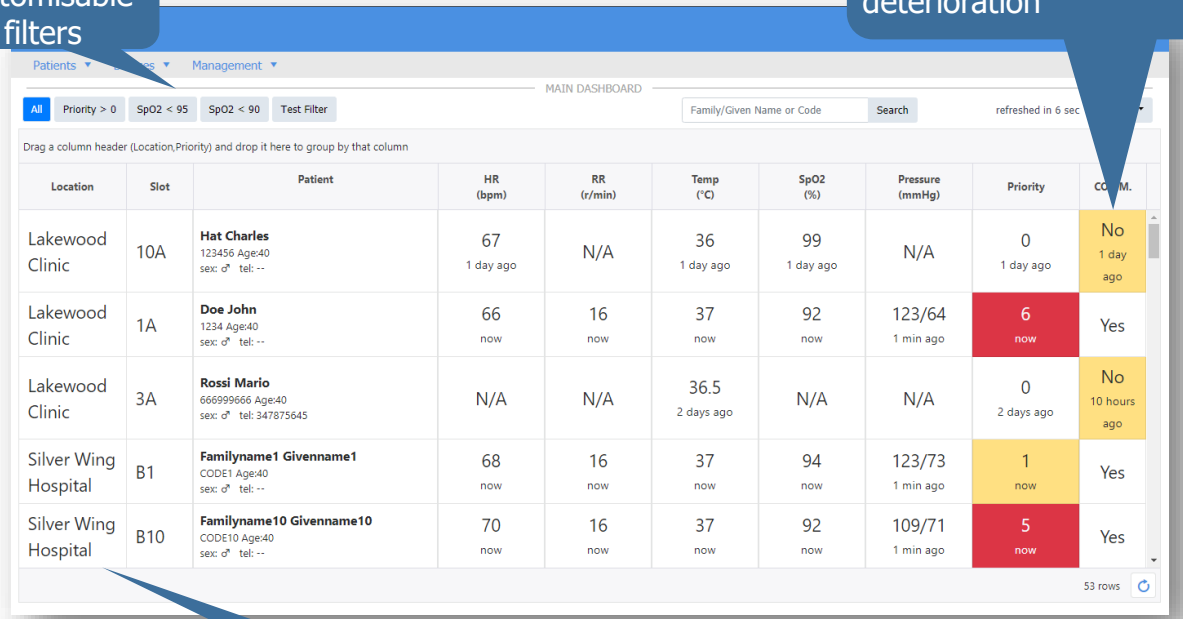
## Access the details of the single patient care



User customisable filters

Generic Rule from CDSS to detect patient deterioration

Live data





E.g. a ward, a hospital, a clinic.

Users will have access only to related locations

Historical data (HR, RR, Temp, SpO2, Pressure, Score)

ascom

# Proof of Concept

## Partnership collaboration

- Respiratory units
- Emergency services
- Coronavirus patients at home
- Outreach services

- Challenges
- Patient Groups
- Capacity Management

- Key Areas
- Devices
- Vendor Neutral

# Thank you

Sophie Evans
Sophie.evans@ascom.com

Fiona Kirk
Fiona.kirk@ascom.com

www.ascom.com/uk

ascom

# The NHS Virtual Wards Conference 2022

# SPEAKING NOW

Henrietta Mbeah-Bankas

Head of Blended Learning
Health Education England

## I will be discussing…

"Developing Digital and AI Literacy in the Health Workforce"

# The NHS Virtual Wards Conference 2022

# UP NEXT...

Piota

# The NHS Virtual Wards Conference 2022

# SPEAKING NOW

Chris Elkin

Head of Healthcare
Piota Healthcare Apps

## I will be discussing…

"Case Study - Piota Healthcare Apps"


# The NHS Virtual Wards Conference 2022

# COMFORT BREAK

**Please remain logged in, we will begin again in 5 minutes time.**


# The NHS Virtual Wards Conference 2022

CONVENZIS

# SPEAKING NOW

## Angela Gregson

Clinical Development Lead
Leeds Virtual Ward for Frailty

## I will be discussing…

"Our Virtual Wards story so far…"

# Leeds Virtual Ward (Frailty)

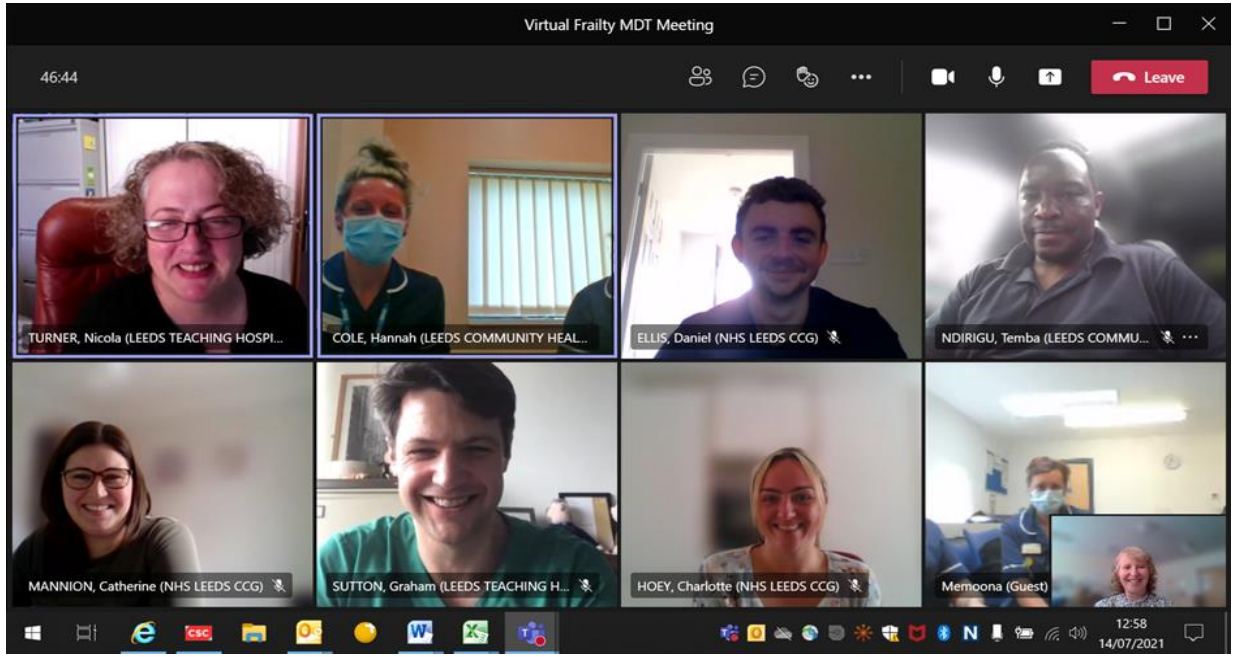
Supporting people to age well, through improving community health crisis response

Leeds City Council

Leeds Oak Alliance
A GROWING NETWORK OF SUPPORT

NHS

# A Short History of the LVW(F)



# What is the Virtual Ward (Frailty)?

**The Virtual Ward (Frailty):**

- Provides rapid assessment and wrap-around care to people over 65 who are moderately to severely frail, in their own home (usual place of residence) who become suddenly unwell and would normally be admitted to hospital (or we can support with an earlier discharge from hospital)
- Commenced in November 2019 in one Neighbourhood Team, rolled out citywide by September 2021
- Service runs 7 days a week, 8am-8pm, currently last referral time to be assessed on same day is 5:30pm.  5:30pm-8pm telephone referrals that can be assessed next day (or need checking overnight)

# What is the Virtual Ward (Frailty)?

**The Virtual Ward (Frailty):**

- Is a 24/7 enhancement of the Neighbourhood Team, including the Neighbourhood Night Service supported by:

  - Consultant Geriatrician – who has medical responsibility whilst the person is under the care of the VW(F). OOH medical cover via on call registrar
  - Pharmacists/ Pharmacy Technicians
  - Specialist Services as appropriate, e.g. CIVAS, LTC's
  - Adult Social Care
  - Third sector organisations

# Referral Criteria
# Virtual Ward (Frailty)/Hospital at Home

**Referral Criteria:**

- People who are registered with a Leeds GP
- People who have been seen by a referrer/ healthcare professional - exception 111 referral
- People who are aged 65 and above
- People whose needs can be managed safely at home, i.e. NEWS2 less than 5 (with the exception of single score of 3 in one parameter) dependent on the person's baseline NEWS2 score1
- People who have been identified as Moderately or Severely Frail using the electronic frailty index (eFI) and/or Rockwood score of 5 or more
- People **NOT** displaying signs of an acute medical / surgical emergency, e.g. overdoses / poisonings, alcohol withdrawal / intoxication, sepsis, seizures, allergic reactions, eye conditions / change in vision, suspected significant injury after a fall / trauma, diabetic ketoacidosis or hyperosmolar hyperglycaemic state, stoke / TIA, venous thromboembolism (VTE) and myocardial infarction

**Examples of people who could be eligible for referral to the Virtual Ward (Frailty)**

- People with delirium of an unclear cause who can still be managed at home and when a change in environment may make the delirium worse
- People with mildly deranged blood tests that need short-term monitoring e.g. mild acute kidney injury
- People with heart failure
- People with UTI's/Chest infections

# Who can refer to the Virtual Ward (Frailty)?

**Who can refer?**

- Primary care (GPs, Advanced Nurse Practitioners (ANP's)/Paramedic Practitioners and Physician Associates (PA's))
- Ambulance Service,111
- Neighbourhood Teams and Leeds Community Healthcare NHS Trust's Specialist Teams
- Mental Health Trust
- Community care beds
- Care homes (both residential and nursing via GP or registered nurse)
- Secondary Care following review by consultant geriatrician

# Once referral is accepted:

- **Assessment** within 2 hours of referral as required, by Community Matron/Trainee Community Matron (for referrals made between 8am-5.30pm)
- **Diagnostics** - Rapid pathology (first bloods within 1 hour until Point of Care testing in place) and radiology diagnostics (urgent same day and routine) with patient transport if required
- **Decision** between matron and Geriatrician re suitability for VW(F)
- **Daily MDT** (Monday to Friday) and **Consultant Advice and Guidance**

# Virtual Ward Frailty Performance (Oct 2019 – October 2022)

| | |
|---|---|
| Number of referrals received | **5323** |
| Number of referrals accepted onto the ward | **3902 (74%)** |
| VW(F) Referrals Rejected After Assessment | **1349** |
| **Top Referral Reasons:**<br>General deterioration<br>Fall<br>Heart failure<br>Chest infection<br>Urinary tract infection<br>Breathlessness<br>Acute Confusion | <br>**10%**<br>**10%**<br>**9%**<br>**8%**<br>**8%**<br>**6%**<br>**5%** |

| | |
|---|---|
| Percentage of referrals seen within 2 hours | **79%** |
| Number of bed days saved | **17345** |
| Equivalent reduction in beds within the hospital | **20.9** |
| Average Length of stay | **4.5 days** |
| Admission rate to hospital | **16%** |
| Readmission rate within 30/7 of discharge from LVW(F) to hospital | **6%** |
| HCAI/VTE on VW(F) within 30/7 of discharge | **0** |
| Deaths on LVW(F) in total to date | **29 (0.02%)** |

# Strengths and Successes

Clear evidence that the service has reduced hospital admissions

The collaborative working model is a great success. Staff and managers are enthused by the collaborative and multi-disciplinary working

Low rates of admission to hospital following care from the virtual ward either at point of discharge from the ward(14%) or in 30 days afterwards (6%)

Staff delivering the service are committed to supporting people in their homes. Staff feel that the level of risk of patients in the virtual ward is appropriate.

Evidence that the ward delivers a return on investment through hospital attendances and admissions avoided

Triage matrons with responsibility for all incoming referrals removed pressure from those visiting people in their homes.

Positive impact for staff and patients regarding daily MDT meetings and 30-minute morning huddles

Providing staff, particularly in primary care, with a better understanding of available referral pathways as opposed to defaulting to A&E.

People and their family members cared for have reported- almost without exception, that the care they receive has resulted in positive outcomes.

# VWF Evaluation – Wider Health and Care System Impact

Preventing hospital admissions when people can be admitted to the VW(F) instead.

Shortening lengths of stay in hospital where a person can be safely discharged to the VW(F).

Low rates of admission to hospital following care from the virtual ward either at the point of discharge from the ward(14%) or in the 30 days afterwards (6%)

Reducing additional healthcare needs through preventing people becoming deconditioned and improve the outcomes they can achieve.

Providing staff, particularly in primary care, with a better understanding of the available referral pathways as opposed to defaulting to A&E.

# Patient & Staff Feedback

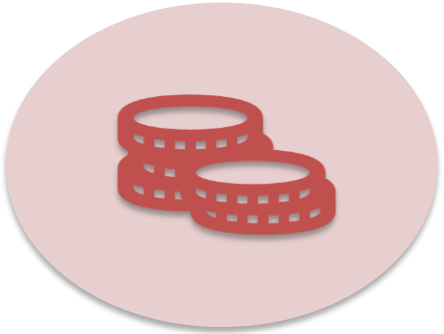
***Evidence from people on the ward and their families showed that they welcomed and valued the care and support they received from the VW(F) team. They believe that it had:***

- Enabled people to recover from the medical issues that resulted in their referral to the ward
- Led to quicker and better outcomes than would have been anticipated in hospital
- Reduced worry and anxiety about contracting Covid-19 in hospital
- Improved the quality of life for people on the ward

***Staff identified a number of benefits including:***

- Having quick access to care and diagnostic services
- People having access to a range of care professionals enabling their care to be more holistic and person centred
- People not experiencing the negative impact of being in hospital such as falls, confusion and deconditioning
- Staff derive professional satisfaction from working on the virtual ward.  Reasons for this included Multi-disciplinary working including the establishment of a supporting, collaborative culture, and multidisciplinary meetings

# VWF Evaluation – Return on Investment



**VW(F) DELIVERS A POSITIVE RETURN ON INVESTMENT. INCREMENTAL COST OF THE VW(F) WAS £813.35 PER REFERRAL BETWEEN JANUARY AND JUNE 2021. SHOULD THE SERVICE BE ABLE TO HIT IT'S TARGET OF SUPPORTING 80 PEOPLE PER WEEK THIS INCREMENTAL COST WILL BE AROUND £692.**

**RETURN ON INVESTMENT IS PRESENTED AS BOTH AN OPPORTUNITY SAVING AND THE COSTS DIRECTLY AVOIDED BY NOT ADMITTING SOMEONE TO HOSPITAL AND WIDER SYSTEM EFFICIENCY- THE CAPACITY THAT COULD THEN BE FILLED IN HOSPITAL FROM TREATING SOMEONE IN THEIR HOME SETTING INSTEAD.**

**THESE TWO FIGURES REPRESENT SLIGHTLY DIFFERENT MEASURES OF RETURN ON INVESTMENT AND CANNOT BE COMBINED. HOWEVER, THE WARD DELIVERED A POSITIVE RETURN ON INVESTMENT ON BOTH £3.67 FOR EVERY £1 INVESTED FROM THE OPPORTUNITY SAVING AND £1.29 FOR EVERY £1 SPENT FROM WIDER SYSTEM EFFICIENCY**

# Key Learning

- The complexity and acuity of people supported on the ward required more support than was anticipated – ongoing training & development and input of specialist community teams for advice and guidance
- Managing workload on the ward alongside other commitments in the Neighbourhood Teams. Issues around capacity in the service which impact on staff morale in the service
- Continuity of care - The ward being supported by different matrons through the week meaning staff needed to spend time familiarising themselves with their caseload every day; similar for geriatrician input
- MDT process – As caseload numbers increase managing challenges around logistics including matrons planning their day around attending and ensuring that discussions were as concise as possible, so meetings do not over run
- Workforce – impact of extension of operating hours 8am-8pm on morale and retention; look at opportunities to develop ACP roles across primary and community care, skill mixing to recruit phlebotomists
- Maximise the role of the third sector - The Oak Alliance support to the VW(F) could be used more effectively
- Consider dedicated social care resource - Identified issues with arranging the delivery of social care in a timely manner to people on the VW(F)
- Consider night care and pharmacy – this was critical to our model in terms of hospital avoidance and understanding the cause of some referrals.
- The importance of time spent shadowing across organisational boundaries – honorary contracts to enable this
- Process set up to access pathology - key partners to engage from the start; if you can utilise POCT from the off
- Establish your project support (including clinical leadership roles), management and formal evaluation team.

# Future work/work in progress


# **Priorities 2022/23 –** Virtual Ward

Review local model: expand concept and range of conditions managed with increase in capacity for remote monitoring alongside current hospital at home approach

Areas for expansion from current established virtual ward offers for **frailty, respiratory** & **covid,** are **cardiac (heart failure)** and **diabetes**

Implement the right digital platform:

- real time remote monitoring & review of patients
- access to home monitoring equipment for patient self-monitoring

Continuing focus on increasing capacity in current virtual ward model/development of core virtual ward model and action to deliver productivity gains

# Leeds Virtual Ward (Frailty) Questions

Lcht.enhancedcommunityresponse@nhs.net

NHS

Leeds Oak Alliance
A GROWING NETWORK OF SUPPORT

Leeds City Council


# The NHS Virtual Wards Conference 2022

CONVENZIS

# UP NEXT...

Methods Analytics
AN ALTEN COMPANY

Capita

# The NHS Virtual Wards Conference 2022

# SPEAKING NOW

Neena Edwards

Senior Consultant
Methods Analytics

Stephen Boyle

Market Development
Director (Health & Welfare)
Capita

Capita

# Virtual Wards

Methods Analytics

AN ALTEN COMPANY

# Capita / Methods introduction

Capita

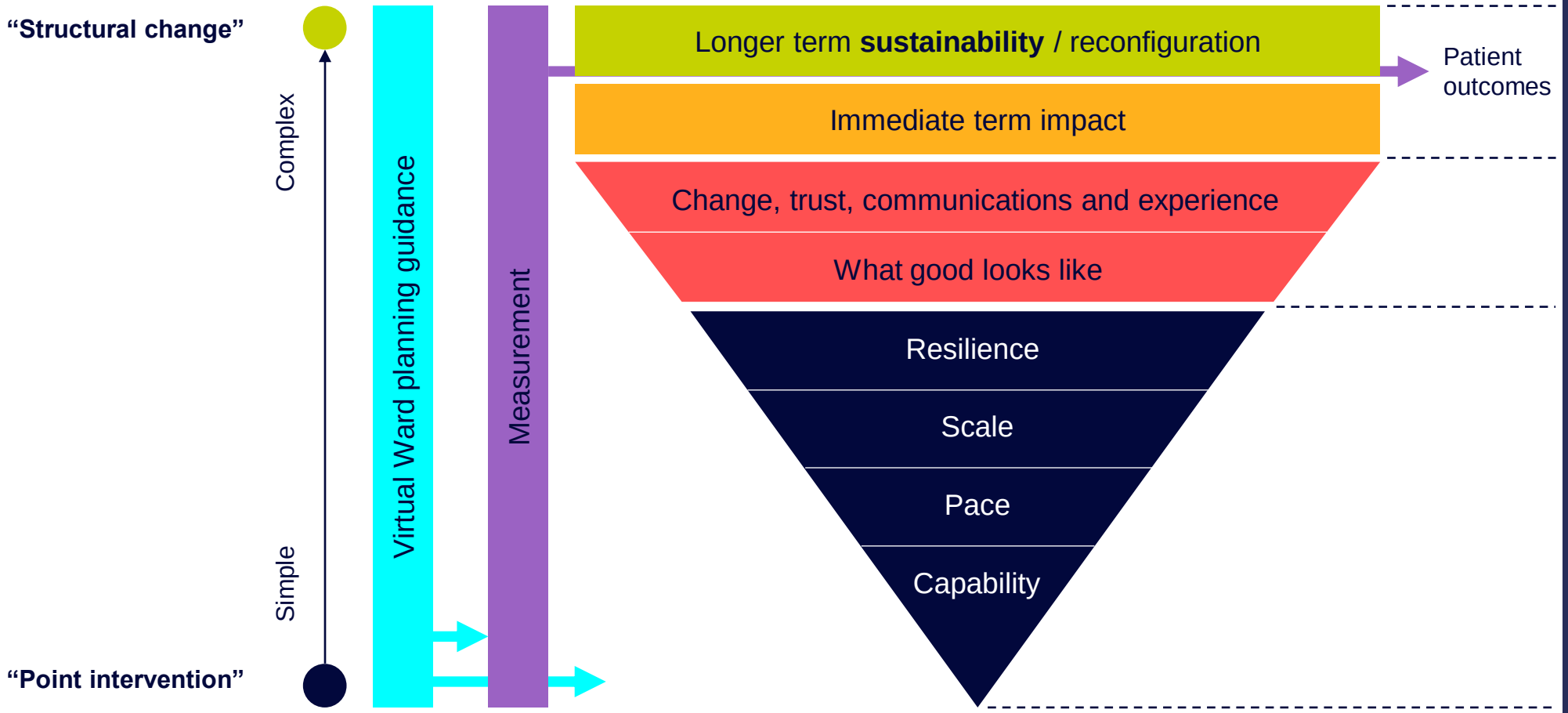
- Provides services to health sector (and local government).
- Supports all Primary Care in England.
- Provides support to multiple ICS's and individual trusts.
- Provides a range of capabilities from digital, data and technology to assessment, skills and training, communications and administration.
- Combines delivery with advisory.
- Nationally, regionally and locally.

A unique combination of world class operational experience and health analytics.

Methods Analytics
AN ALTEN COMPANY

- A specialist data company.
- We use data to help public and private sector clients solve complex problems and do good things.
- We do it through a combination of passionate people, sector- specific insights and technical advancement.
- Our outputs are transparent, robust and transformative.
- From problem identification, data management and data science, to visualisation, interpretation and the delivery of actionable intelligence – we support our clients across the entire data lifecycle.

# Virtual Ward challenge



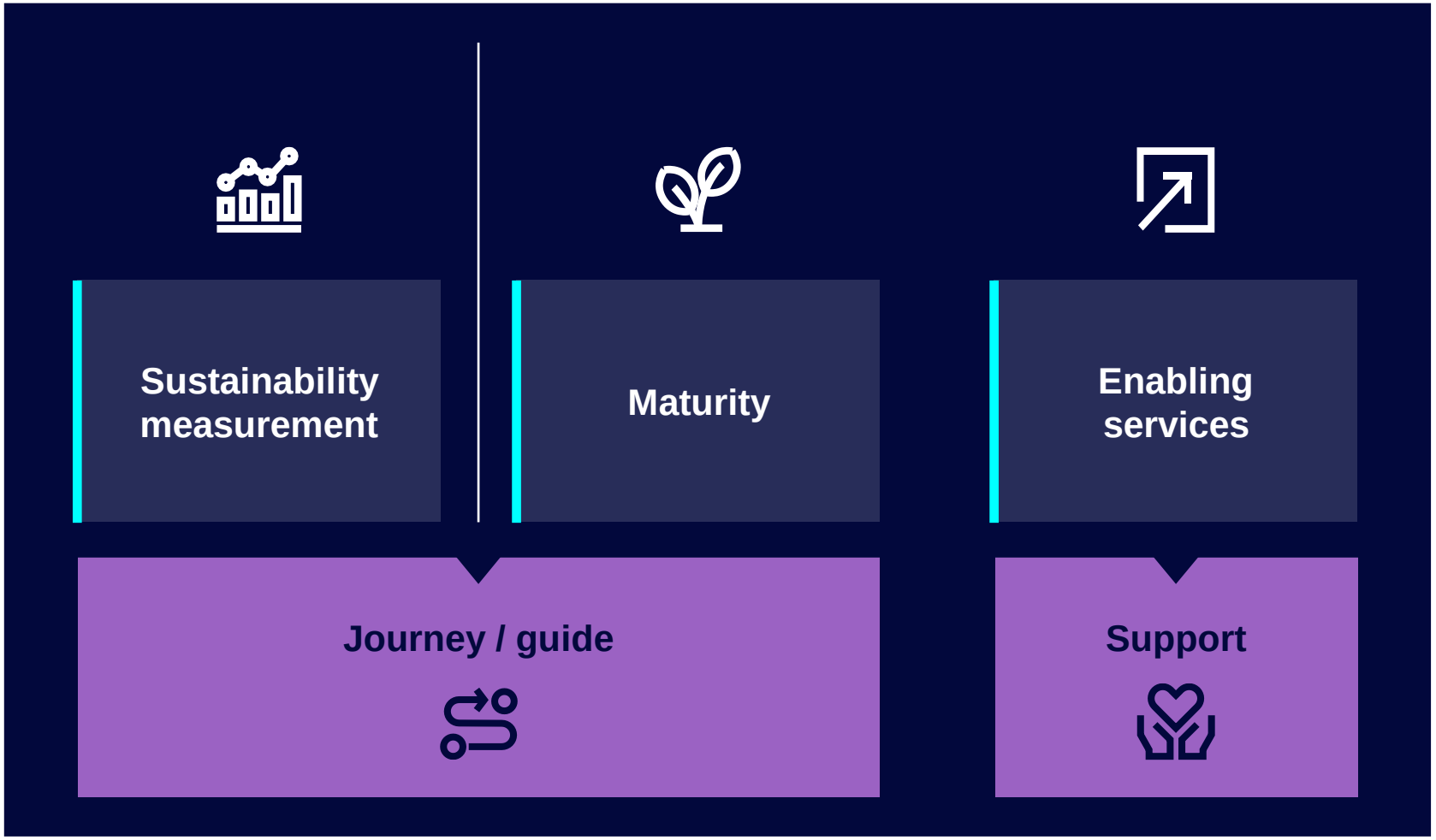
# Three building blocks

Longer term **sustainability** / reconfiguration

Immediate term impact

**Vision**





# What does sustainability look like?

*How do we measure the sustainability of Virtual Wards achieving the national ambition of 40-50 virtual beds per 100,000 population?*

- Clinical effectiveness
  - Clear governance and clinical leadership
  - Reduced avoidable admissions
  - Improved and earlier discharges
  - Workforce
    - MDT
    - Availability of clinical experts
  - Efficient workflows and processes
  - Appropriate selection of specialties / conditions / patient cohort

- Patient satisfaction
  - Improved care experience (Patient Survey)
  - Increase in patient choice
  - Improved family / carer experience
  - Reduced HCAI, reduced functional decline / frail readmissions

Methods Analytics

# How to measure sustainability

- Cost effectiveness
  - As an ICS reduced spending on emergency admissions and A&E attendances
  - Acute Trusts working with commissioners to create contractual tariffs to allow for increased Clinical Consultant time in lieu of patients being physically admitted
  - Acute Trusts and Commissioners to look together at Clinical Consultant job planning to allow for clinical time to be allocated
- System benefits
  - Reduced A&E attendances and emergency bed days
  - Improved flow through system
  - Reduction in inpatient activity resulting in capacity for clearing the post covid backlog
  - Shared care records – improved access to information across the ICS

Methods Analytics

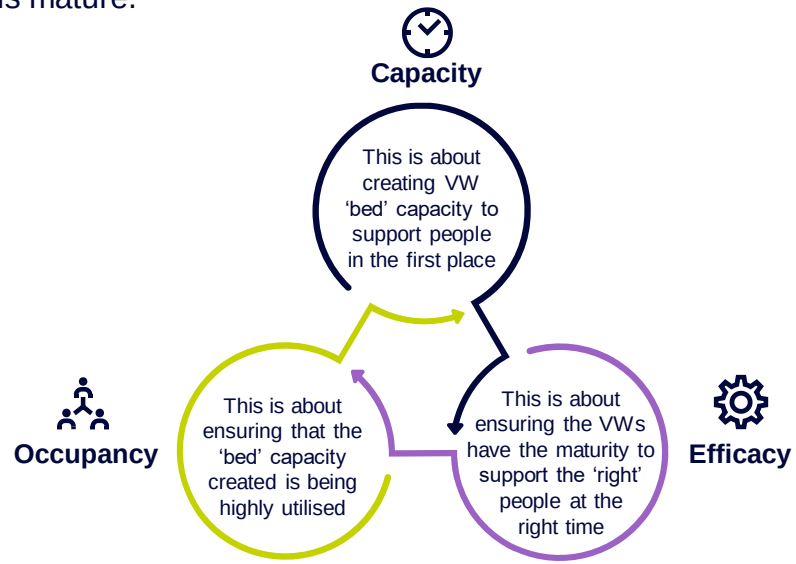
# Maturity – complexity and barriers

## NHSE view on what is needed to achieve benefits

### Capacity, Occupancy, Efficacy
**Collection focus**

In order to realise benefits suggested by ICSs' planned trajectories, systems will want to focus on developing a sustainable delivery model that revolves around two other critical components – occupancy and efficacy.

This is particularly relevant given reported actuals suggest ~45% occupancy in existing virtual wards which will be expected to rise as models mature.




## Any of the following can be considered as potential barriers to scalability and sustainability:

- Are virtual wards supporting the right patients with the right care safely (Efficacy)
- Clinical perception and trust of Virtual Wards
- Resources available
- Demand
- Virtual wards capacity and capacity for growth
- Virtual wards utilisation (Occupancy)

# Maturity – the route to scalability and sustainability

## Foundational

1. Virtual wards only partially meet the requirements of the NHSE guidance
2. No route to achieve bed numbers expected accept through replicating existing deployments
3. Not able to manage risk and safety nor support sustainability or scalability

## Minimal viable

1. Operating and planned Virtual Wards meet the operating model required by NHSE
2. No or limited route to achieve bed numbers expected accept through replicating existing deployments
3. Not able to support sustainability or scalability

Every ICS **must** be at least this level.

## Making progress

1. Virtual wards with NHSE operating guidance
2. Increasing bed numbers by replicating inconstantly

This level of maturity is **showing** scalability but unsustainable.

## Aspirational

1. Demonstrating sustained growth.
2. Secure clinical governance model
3. Clear way of tracking patient-centric outcomes and execution plan across the following domains:
   - Patient outcomes / experience
   - Patient experience
   - Technology / data / intelligence
   - Workforce
   - Logistics and communications
   - Standards / training
   - Leadership / governance

# Enabling services

**By assessing the maturity of virtual wards gives integrated care systems key insights into:**

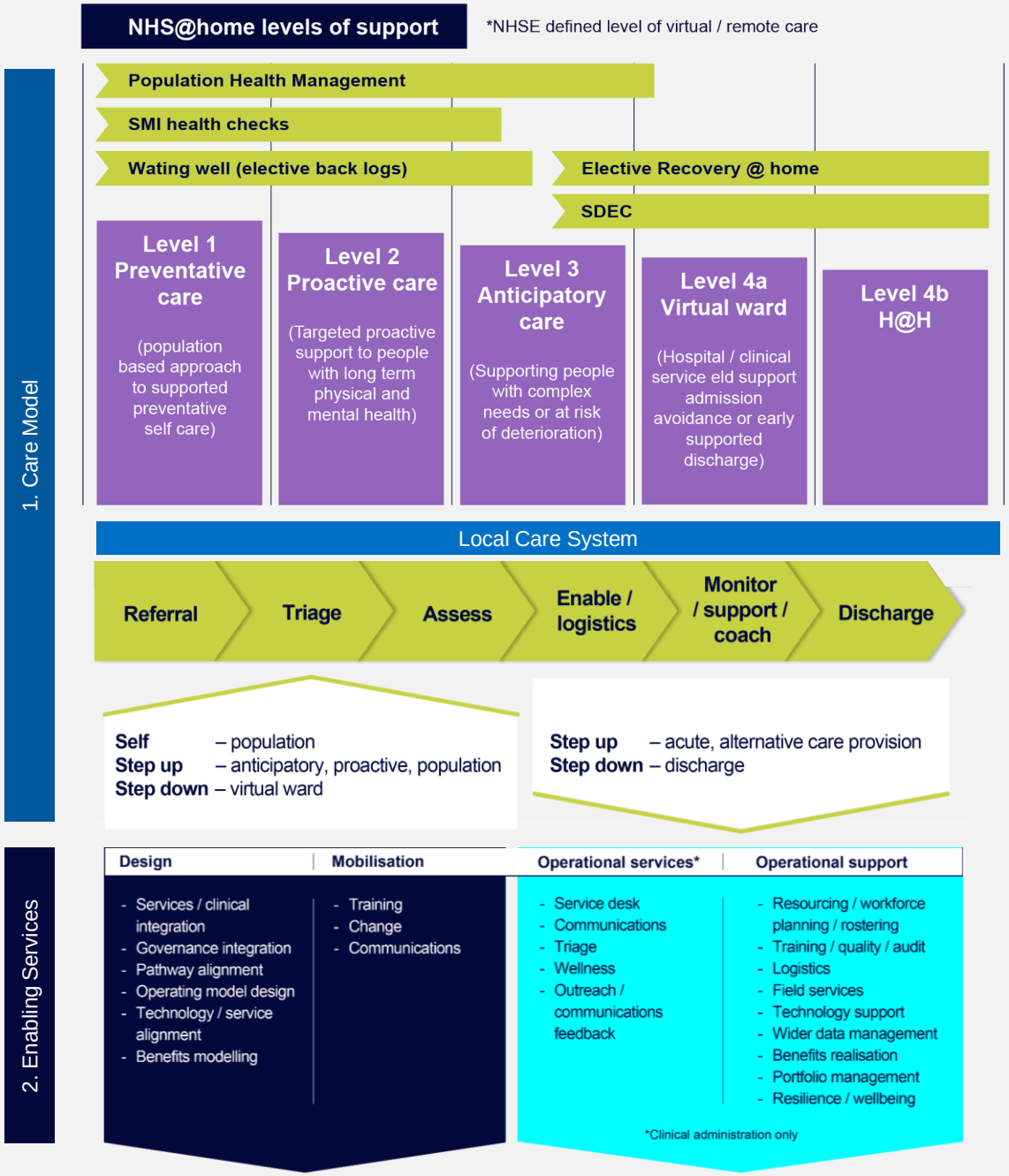
**Understand what works well.**

**Readiness –** understand what is needed – leadership, resourcing and governance.

**Capabilities –** what is needed for a virtual wards (i.e., processes, orders and results, medicine management, decision support, remote monitoring, intelligence, and data to inform efficacy, and infrastructure).

**Opportunities to innovate,** drive quality, share learning from other sectors.

**Need for enabling services,** what needs to be localised and what can be genericised.



# How analytics can help with operational challenges

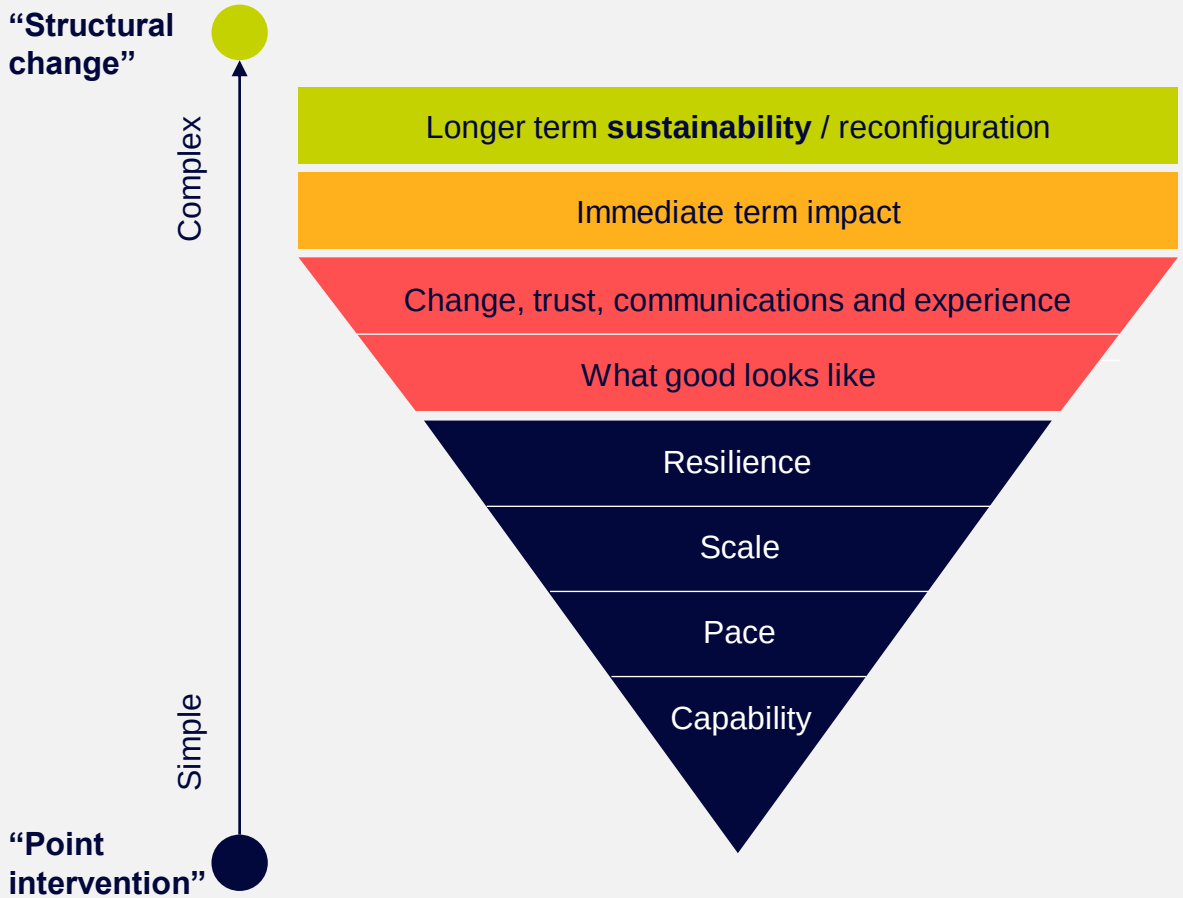
- Predictive modelling
  - Identify people at risk of being admitted as potential VW patients
  - LTC
  - Regional
  - Triggers when health deteriorates

- Linked Data Strategy
  - Imperative to share data within the healthcare community to allow for improved, timely, concise data leading to quality and effective treatment for patients in a virtual ward setting

Methods Analytics

# Summary

- Virtual wards offer huge potential.
- Achieving sustainability at scale is critical.
- Local systems need to consider their plans and programmes in the context of a maturity journey.
- Data is a key guide, both in terms of strategy and planning and optimising operational performance.
- Sustainable scale will be difficult to achieve with current NHS constraints without some form of enabling services.



Capita

If you would like further information, please contact:

stephen.boyle@capita.com

Methods Analytics
AN ALTEN COMPANY

If you would like further information, please contact:

neena.edwards@methods.co.uk


Methods Analytics

AN ALTEN COMPANY


Capita

# The NHS Virtual Wards Conference 2022

# UP NEXT...

HomeLink Healthcare

# The NHS Virtual Wards Conference 2022

# SPEAKING NOW

Jill Ireland

CEO and Clinical Director
HomeLink Healthcare

## I will be discussing…

"Lessons learnt and outcomes achieved through establishing and scaling up virtual wards"

HomeLink Healthcare

# Lessons learnt and outcomes achieved through establishing and scaling up virtual wards

Jill Ireland, CEO and Clinical Director, HomeLink Healthcare

# Agenda

- Who are HomeLink Healthcare
- What Virtual Ward delivery looks like in HomeLink Healthcare?
- Empowering patients
- Outcomes and improvements in patient flow
- Lessons learnt
- Book a session with us

# Who are HomeLink Healthcare?

*“We’ve always been clinical first, enabled by tech where appropriate.”*

- HomeLink Healthcare provides **safe, compassionate high-quality** Hospital at Home services to NHS patients**.**
- We **improve patient flow** by getting people out of hospital when they are clinically fit and stopping people coming into hospital
- We are **100% dedicated to Hospital at Home services** and have been since 2016.
- We are a **clinically led** organisation and are seen by our clients as NHS like
- Our highly skilled multi-disciplinary nursing and therapeutic teams can support patients in the place they call **home, seven days a week**.
- We work in **partnership** with multiple NHS trusts, ICSs, Commissioners and CCGs and are all about flexibility
- **100% commissioner satisfaction** to date.

# Virtual Wards delivery and HomeLink Healthcare

**We set up our first virtual ward in 2019 at NNUH.**

**In the last year we've supported 257 patients**

**An average of 11 bed days per patient across our virtual wards**

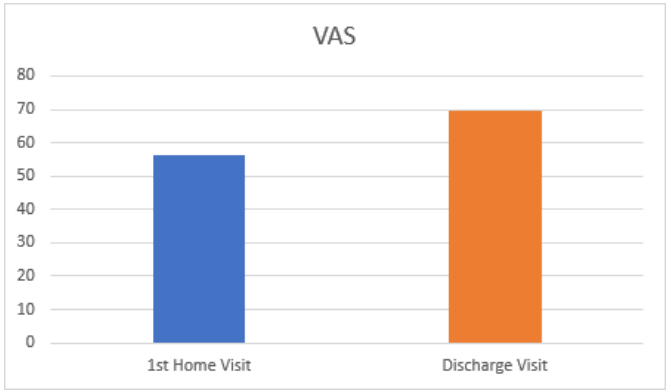
- An **on-site team** managed by a Clinical and Operational Lead co-ordinates patient care from the hospital, liaising with the consultant
- A **community-based team** carries out patient visits. Typically, visits are scheduled between 0700 and 2200hrs, seven days a week.
- **Remote monitoring**, communicates patient information to the hospital. We work in partnership with leading providers of remote monitoring equipment and are happy to use equipment already purchased by the NHS.
- **Real-time reporting** enables performance to be regularly tracked against KPIs and outcome measures.
- Our virtual wards are supported by a **24/7 clinical on-call service**.

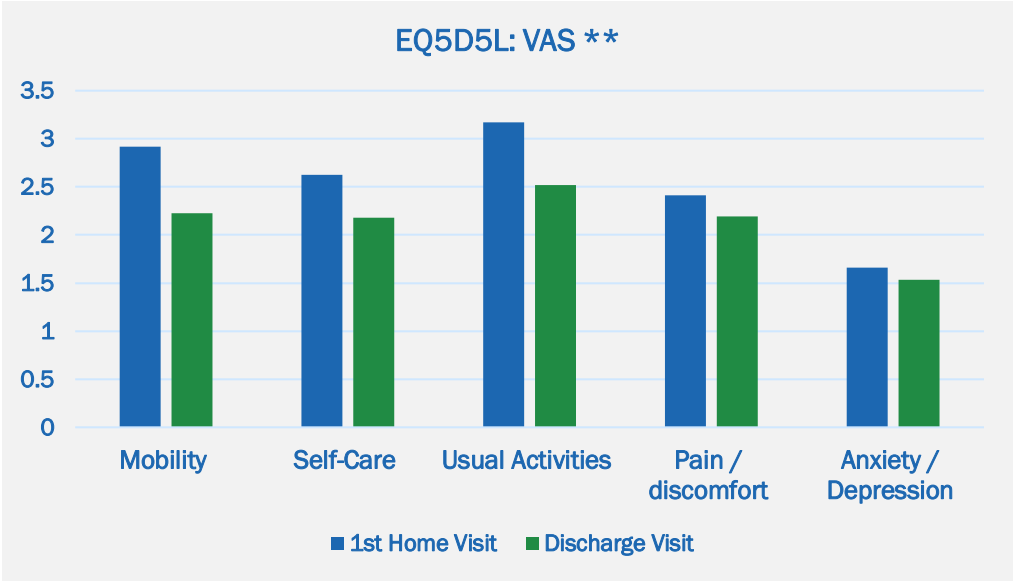
# Improved patient outcomes

*You did everything exceptionally and allowed me to leave hospital six weeks earlier than planned because of the service you provided. THANK YOU!!"*

**Patient feedback**

- EQ5D5L – a validated patient self-reported outcome measure indicates that patients have reported a **23.8% increase in their health** state compared to their initial visits vs their discharge visit



# Empowering patients

**We believe everyone should have the choice to be treated at home rather than in hospital**


**95%** of our patients rate us **8+ out of 10** in terms of satisfaction

HomeLink Healthcare

COMPASSIONATE • COLLABORATIVE • COMMITMENT TO QUALITY CARE

www.homelinkhealthcare.co.uk

# Lessons learnt in setting up a virtual ward


*Cannot isolate the benefit of HomeLink Healthcare to a singular component – combination of the different clinical services underpinned by strong governance and high-quality service provision with flexibility make this a valuable model across the board"*

**Cursty Pepper**
Deputy Chief Operating Officer, Norfolk and Norwich University Hospitals NHS Foundation Trust

# Talk to us about how we can help you?

- We are set up to provide additional capacity
- Always looking for potential partners to work with to provide benefit to the NHS
- We can offer a free proof of prevalence audit and help with your business case development
- Sign up for an appointment or get in touch

# The NHS Virtual Wards Conference 2022

# SPEAKING NOW

Jim Ritchie

Chief Clinical Information Officer
Northern Care Alliance

## I will be discussing…

"Models of Virtual and Remote Care at the Northern Care Alliance"

NCA Digital

NHS
Northern Care Alliance
NHS Foundation Trust

# Remote care at the Northern Care Alliance

*8th November 2022*

**Jim Ritchie - Chief Clinical Information Officer**

james.ritchie@nca.nhs.uk @cholrtonjim

NCA Digital

NHS
Northern Care Alliance
NHS Foundation Trust

One of the largest trusts in England - 4 hospital campuses

Over 24,000 staff and 15,000 end user devices

Providing care of over 1 million citizens in Salford, Bury, Rochdale and Oldham

Community, adult social and hospital care

Tertiary and quaternary clinical services

NCA Digital

NHS
Northern Care Alliance
NHS Foundation Trust

# Different people. Different needs

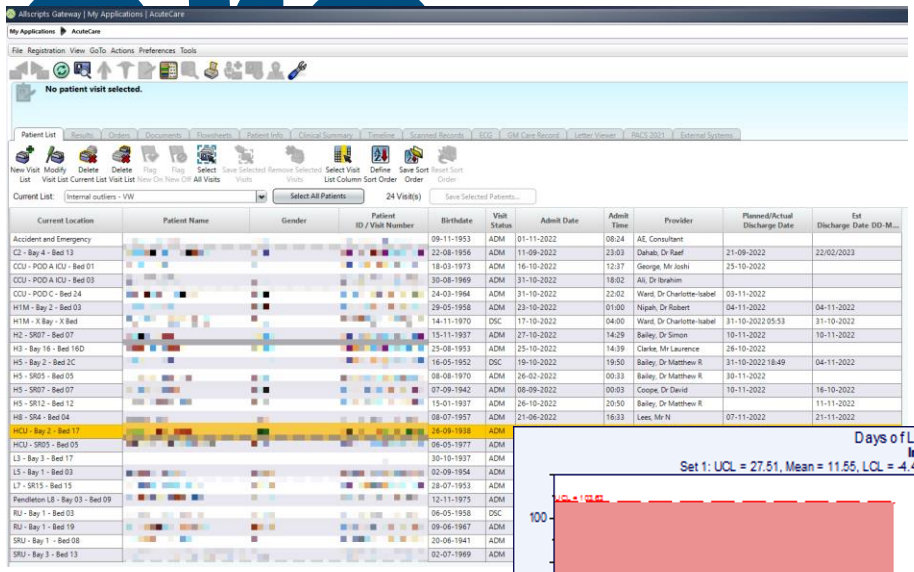

- ACUTE CARE
- REGIONAL PATIENTS
- CHRONIC DISEASE
- POPULATION Mx

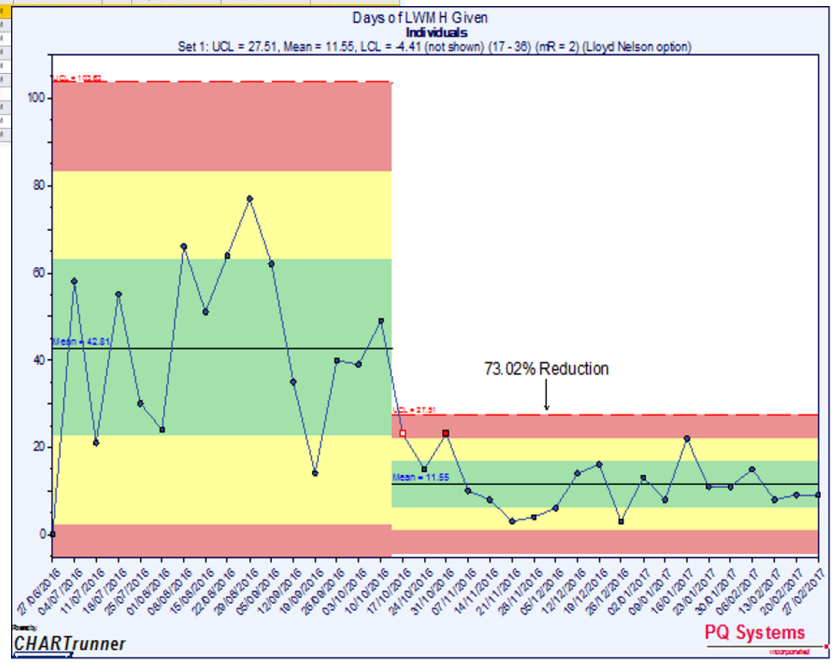
# Acute care

Admission avoidance / deflection

Community step up

Early discharge / step down





NCA Digital

NHS
Northern Care Alliance
NHS Foundation Trust

# Acute care

Oximetry @ home

Rapid deployment

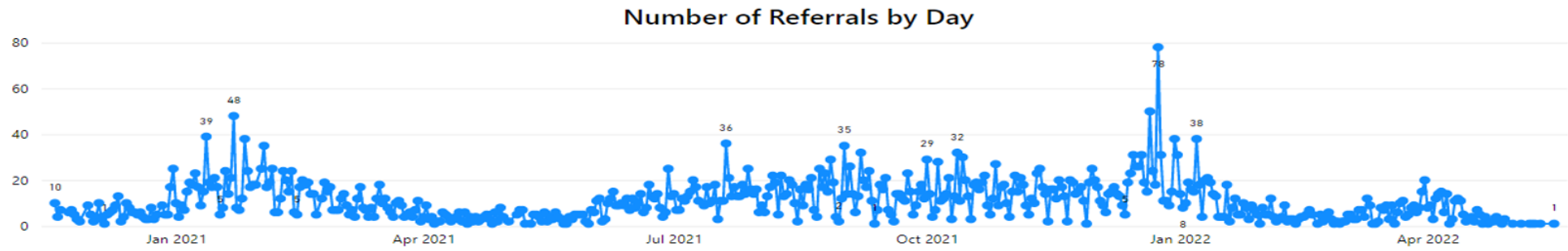
Simple technology

Active Oximetry @ Home

| 3 | 20 | 46 |
|---|---|---|
| Total Active Caseload | AverageLosDays | mx Los Days |

Discharged Oximetry @ Home

| 5664 | 13.29 | 508 |
|---|---|---|
| Total Discharged Caseload | Average LoS (Days) | Maximum LoS (Days) |



NCA Digital

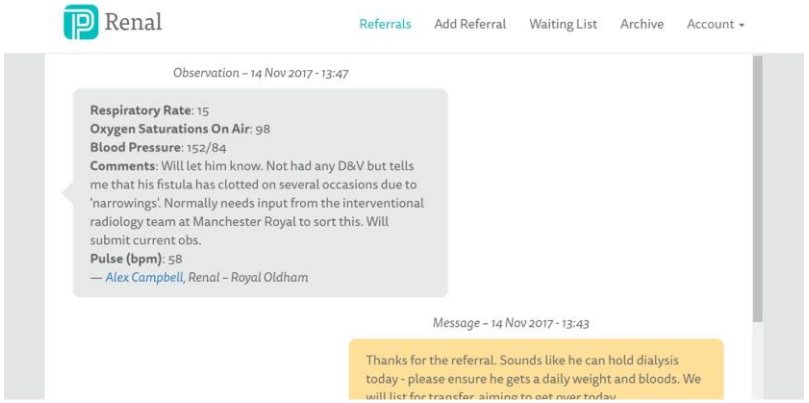
NHS
Northern Care Alliance
NHS Foundation Trust

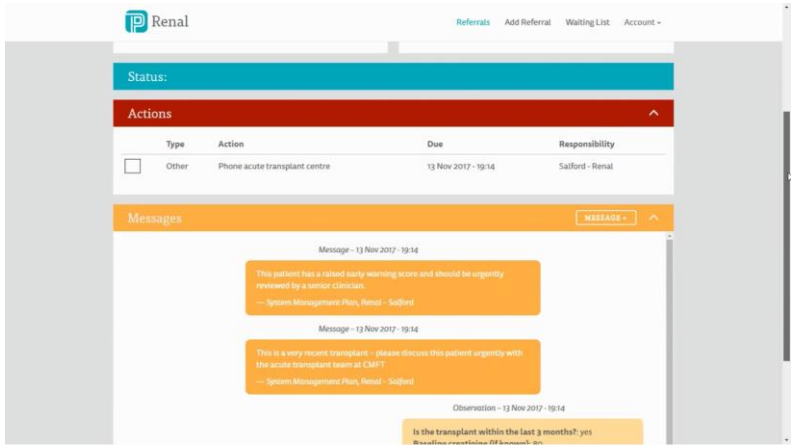
# Regional patients

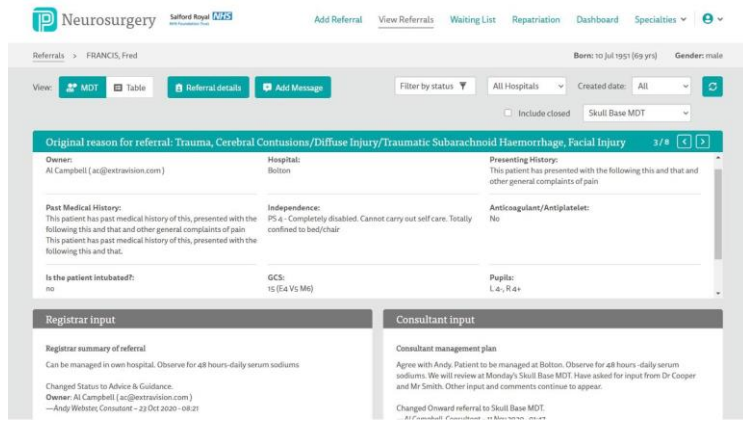
Direct care planning, communication and inter-site transfers between acute sites for patients requiring speciality team input and care

Over 5000 patients managed

Efficiency and cost savings (0.5 FTE per service)



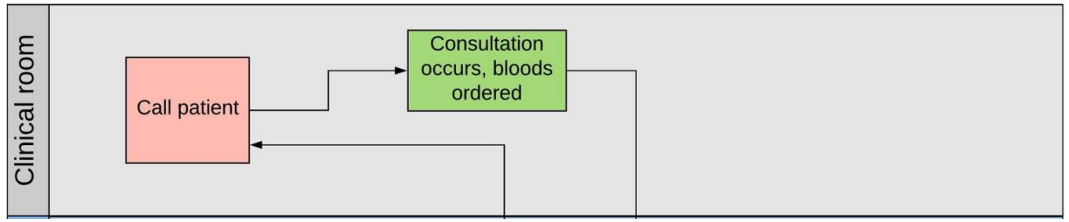



NCA Digital

NHS
Northern Care Alliance
NHS Foundation Trust

# Chronic disease



NCA Digital

NHS
Northern Care Alliance
NHS Foundation Trust

# Chronic disease

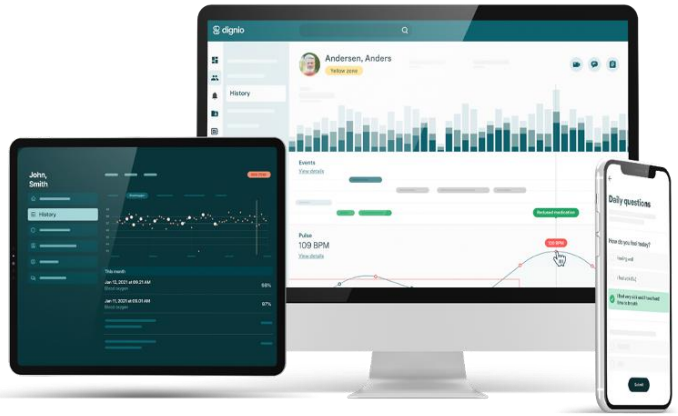
Defined patient tolerances

Patient <-> care team communications

Highly usable

Device integrations

Improves experience of patients and staff




NCA Digital

NHS
Northern Care Alliance
NHS Foundation Trust

"Covid-19 demonstrated how important technology was for us to communicate, this tool allowed staff to communicate with patients in a way that was more informative, quicker and more time-efficient. The app helps us stay connected with patients, collect up to date information and has resulted in real benefits for patients and staff.“

**Dr Hussain, Consultant Cardiologist**

**30% reduction** in re-admission for monitored patients

Patient experience improved

Enhanced clinical efficiency

NCA Digital

NHS
Northern Care Alliance
NHS Foundation Trust

Patients

Renal services

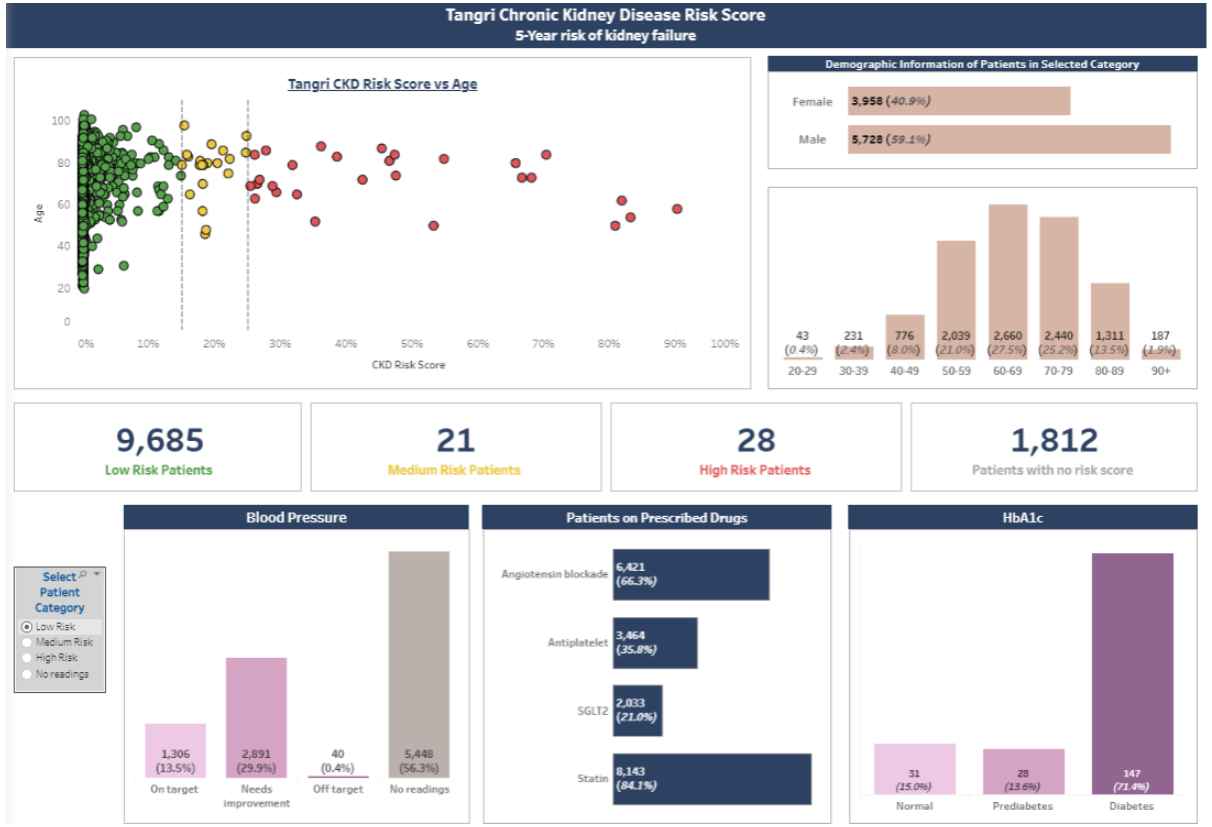
Regional CHF nurses

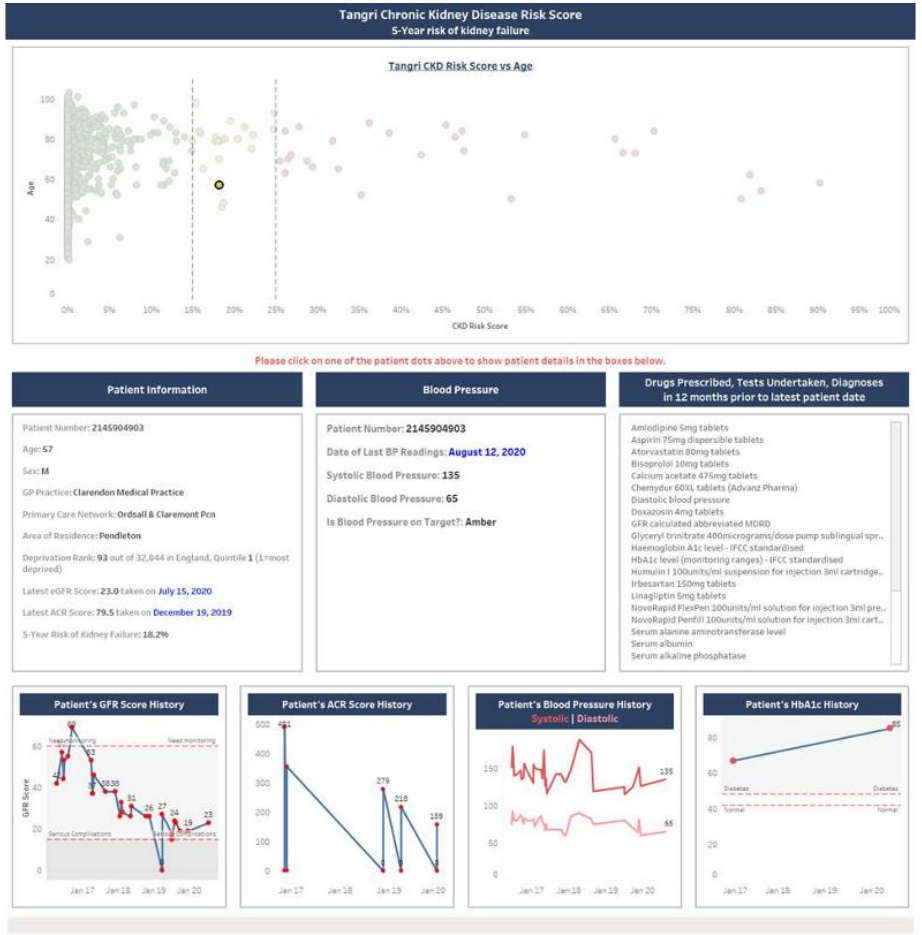
Virtual MDT

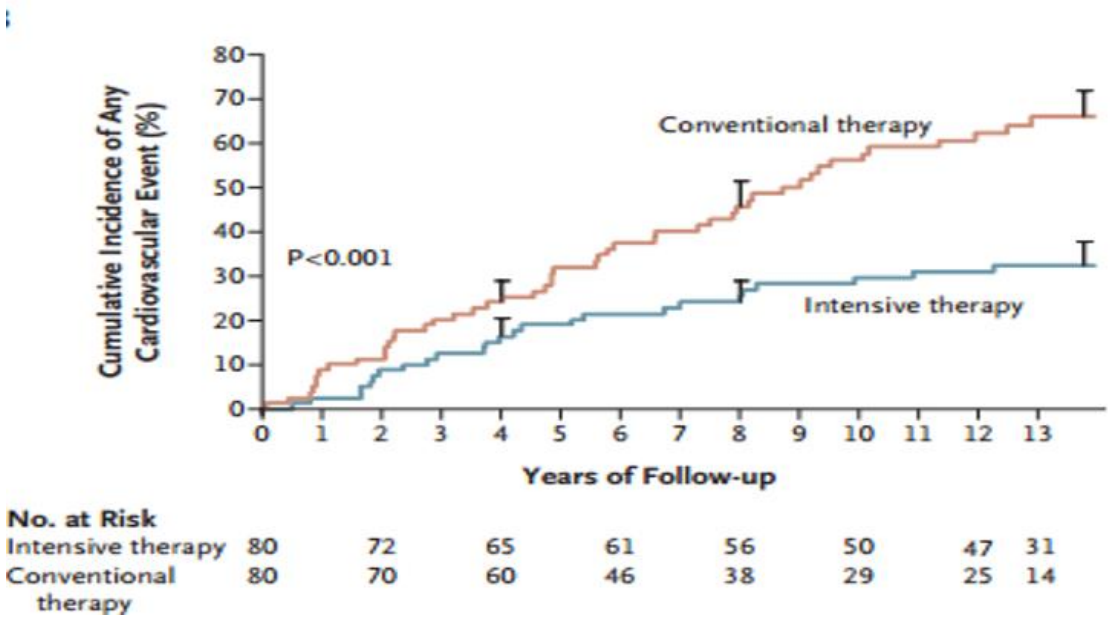
NCA Digital

NHS
Northern Care Alliance
NHS Foundation Trust

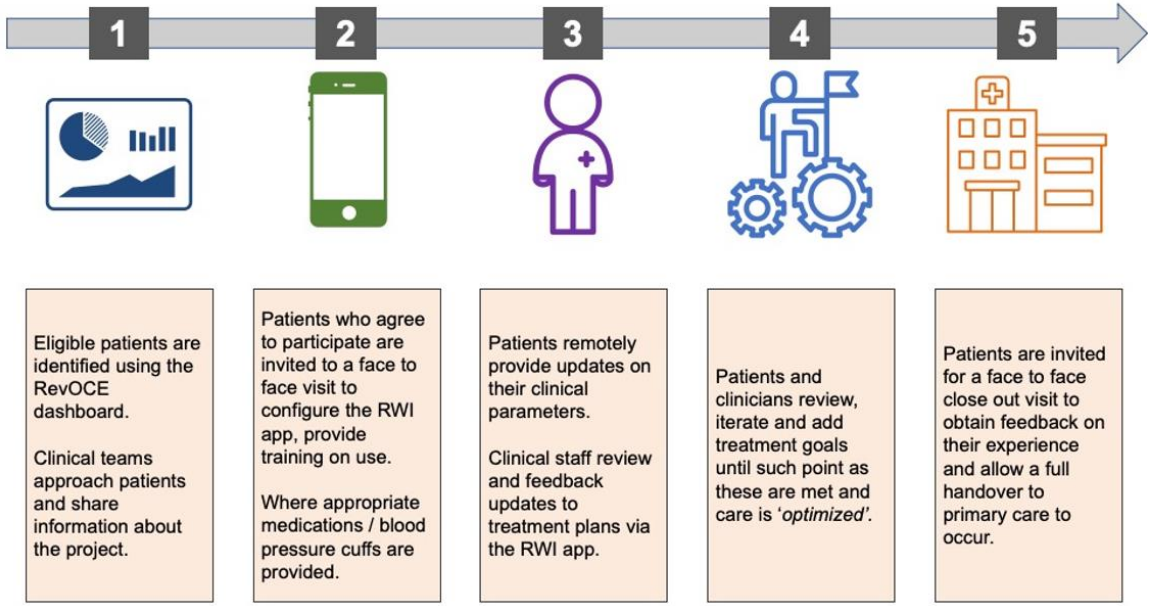
# personalised population health






*Gaede et al N Engl J Med 2008; 358:580-591*



NCA Digital

NHS
Northern Care Alliance
NHS Foundation Trust

# Many thanks

**Jim Ritchie - Chief Clinical Information Officer**

james.ritchie@nca.nhs.uk @cholrtonjim


# The NHS Virtual Wards Conference 2022

CONVENZIS

# UP NEXT...

doccla

# The NHS Virtual Wards Conference 2022

# SPEAKING NOW

Greg Edwards

Chief Medical Officer

Doccla

Louise Taylor

Lead Research Nurse

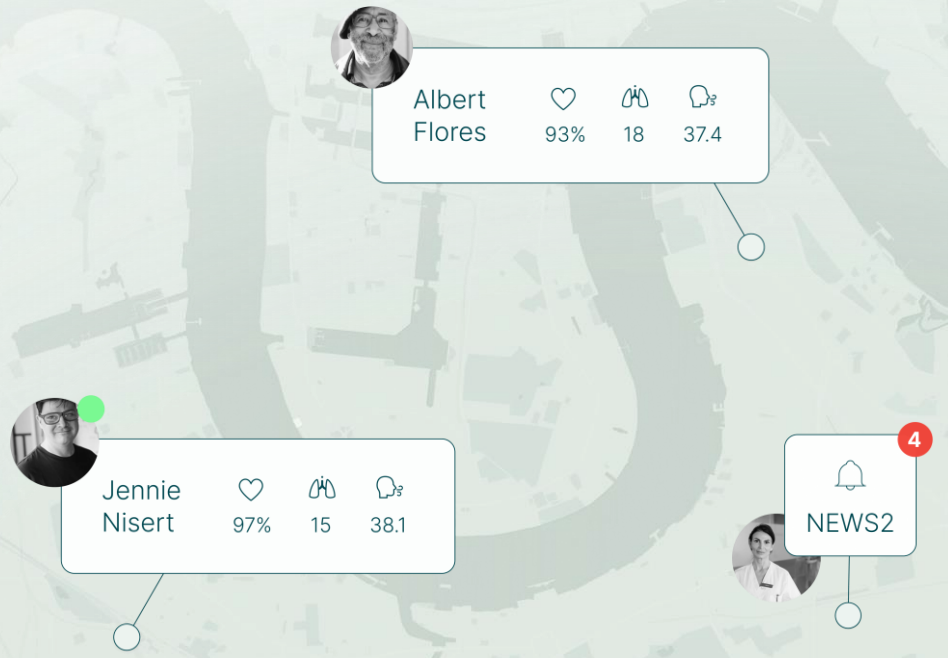
Doccla

## We will discuss…

"Enhancing peri-operative care through virtual wards: Findings from an interim analysis"

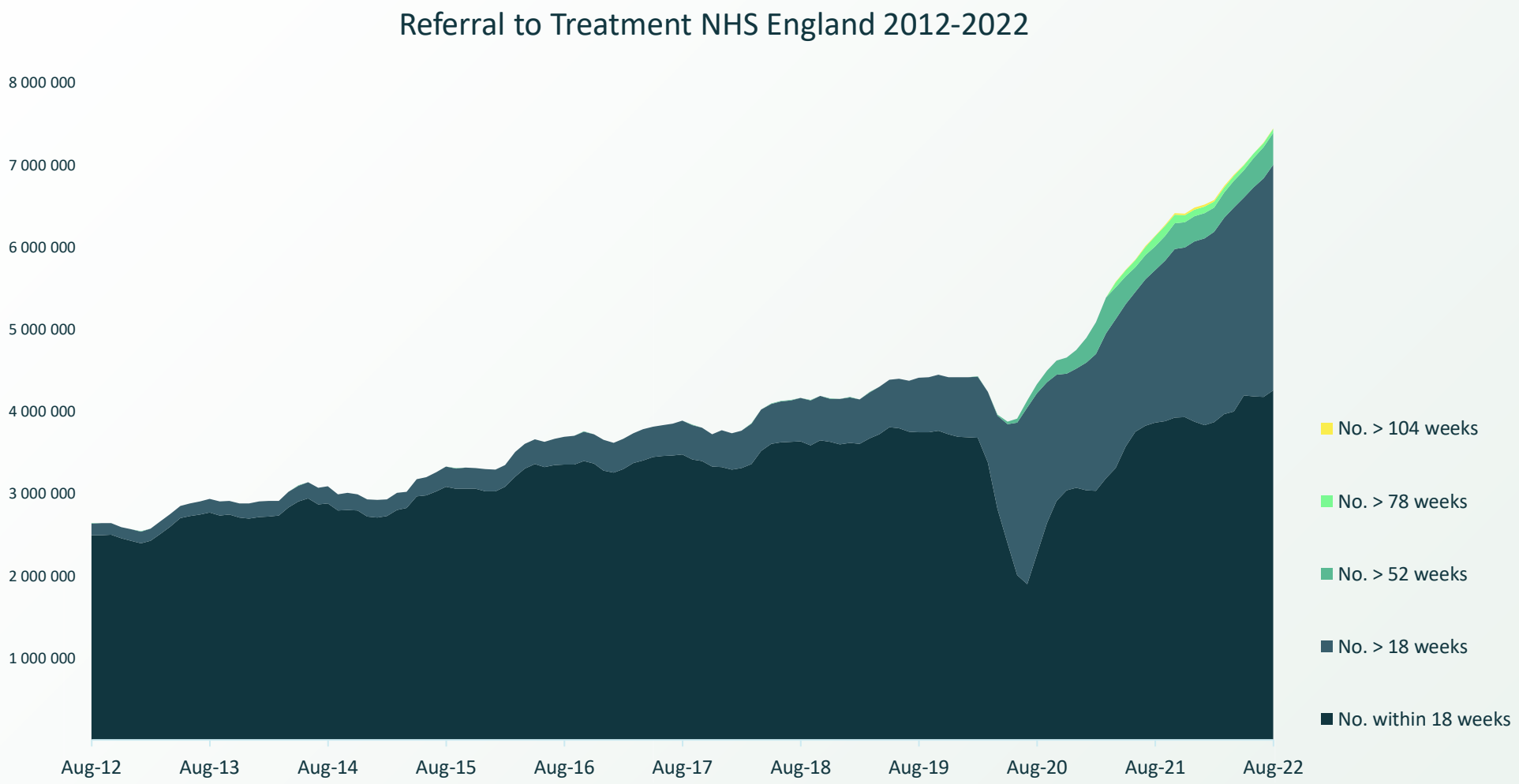
# Enhancing Peri-operative Care Using Virtual Wards

Findings from an interim analysis




doccla

# The Situation



# The Challenge

- Poor patient experience
- Deteriorating whilst waiting
- Prolonged recovery
- Bed pressure limiting operative capacity

Could Virtual Wards help?

Clement, N. et al (2022) Significant deterioration in quality of life and increased frailty in patients waiting for total hip or knee arthroplasty: a cross-sectional multicentre study *The Bone and Joint Journal* 104-B(11):1215–1224

# The Tools

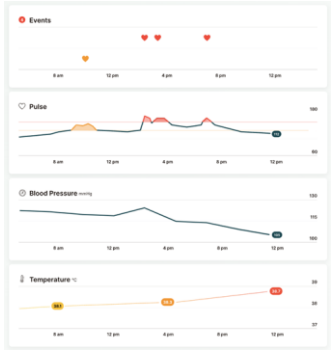
## Devices & Logistics

Wide range of devices – collect relevant patient health measurements. We deliver, collect and decontaminate.

## Patient App & Support Service

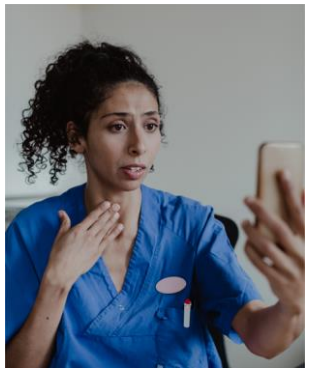
Personalised device and app - sends patients vital signs & symptoms. We onboard patients and monitor submissions

## Clinician Web Portal



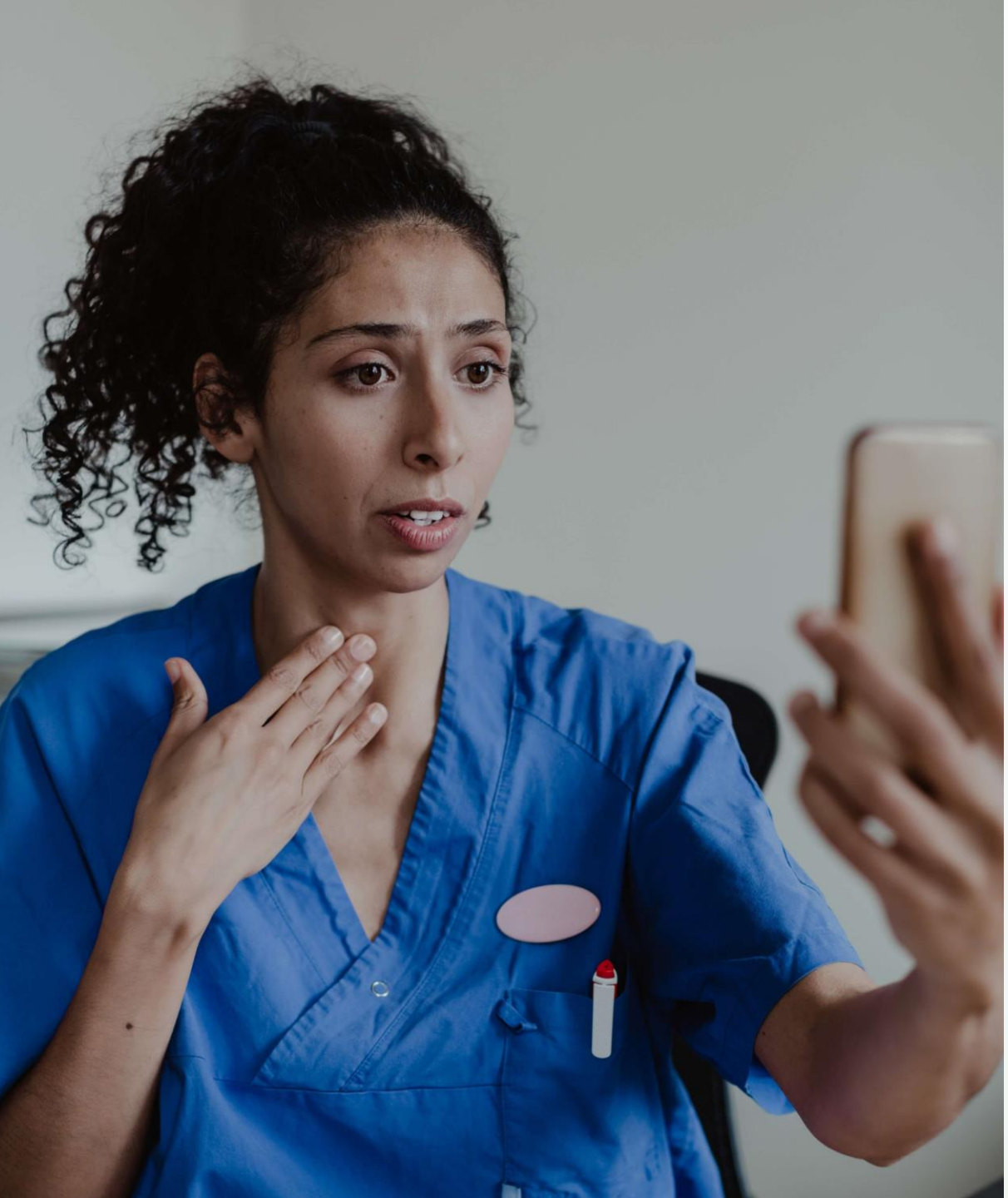

Clinical dashboard – 24/7/365 access to patient data with smart alert system

## Clinical Capacity



Clinical monitoring and last mile support to relieve healthcare staffing shortages

CareQuality Commission



# The Aim

In July 2022, we started planning the post-op virtual ward with our NHS partners (HCT).

The objectives were to:

- support patients to better manage their recovery following discharge;
- allow patients to recover from their operation safely and conveniently at home; and
- free up bed spaces so that more patients can get their joint replacement surgery sooner.

Post-operative virtual ward launched in Sept 2022

# The Patients

Screening for the virtual ward begins before the patient has their operation.

Suitable patients must:

- be able to give informed consent; and
- be able to use the monitoring equipment; or
- have someone who can help them use the monitoring equipment.

# The Pathway

## Onboarding

Three days pre-op

## Surgery

Patient undergoes elective operation

## Discharge

Early supported discharge when patient ready

## Virtual Ward

Vital signs
Questionnaires
Wound review
Activity monitor
Exercises

## Monitor

RPM nurses via dashboard

Escalate as necessary

## Discharge

Usually after 7 days

# The Impact

## 10 patients

Admitted to the virtual ward

## 100%

Compliance

## 0

Readmissions

- Knee LOS **2.3 days**
- Hip LOS **3.6 days**
- VW LOS **7.3 days**

* average LOS

# The Feedback

88%

Reported that the VW helped them to manage their health condition

“Really nice to know that I was being taken care of from my own home”

“I knew that I didn't have a temperature, that I was still getting oxygen in my blood, that my blood pressure was okay and getting feedback from the clinicians….was reassuring to have that after leaving hospital, gave me peace of mind”

“It was an excellent service being monitored after coming out of hospital and receiving feedback from the nurses every day was wonderful, we heard from them on a daily basis”

# Key Learning

- Patient recruitment
- Clinician engagement
- Data collection
- Patient information

# Next Steps

- Implement improvements
- Consider other operative pathways
- Enhanced pre-op support

Dr Greg Edwards
Chief Medical Officer
greg@doccla.com

Louise Taylor
Lead Research Nurse
louise@doccla.com

# Digital inclusivity

## Demographic

66[1]

Average age of patient

54%[1]

Patients over the age of 65

16 - 93[2]

Age range

## Accessibility

### Talkback

Screen reader software.

### Voice Access

Voice control function.

### Google Assistant

Virtual assistant.

### Translation Service

Over 150 different languages for onboarding and patient information leaflets.

## Connectivity

### Smartphone/Tablet

Provided as standard

### 4G data plans

Secure fall back if the patient does not have WiFi.

### Bluetooth

Preconfigured connection with devices.

### Remote access

Mobile Device Management software that ensures device and data security, including remote control.

1.Across Respiratory, Heart Failure and General Pathways at HCT and EPUT, August 2022
2.Across all pathways : Weekly reporting for the NHS, Doccla Ltd, July 2022.

# The NHS Virtual Wards Conference 2022

# SPEAKING NOW

Kirsty Osborn

Deputy Director Urgent Care Derbyshire
DHU Healthcare

## I will be discussing…

"Oximetry@home - Achieving Virtual, Safe and Compassionate Patient Care

# ‘Oximetry @ Home’ Achieving Virtual, Safe & Compassionate Patient Care

Kirsty Osborn – Deputy Director (Urgent Care Derbyshire)

Catherine Flynn – Head of Operations (Urgent Care Derbyshire)

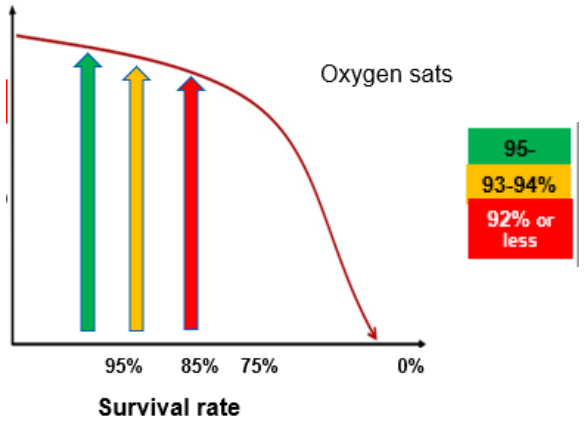
# Aims of the presentation

- To provide an overview of a hugely successful Virtual Ward service which commenced in the early stages of the COVID-19 pandemic
- To present a background of the service to include patient population, enrolment, monitoring and escalation/discharge
- To demonstrate key data and service feedback
- To highlight learning outcomes and the future

# Background of the service

- COVID-19
- National requirement (Dec 2020)
- Local system response – engagement
- Aligned to Red Hubs/Acute Visiting Service

# Evidence




- The lower the oxygen saturation, the higher the mortality
- Unpublished evidence from over 1,000 COVID patients' initial oxygen saturation recordings in the community (that were later admitted to hospital) shows that if they are below 93%, the mortality rate is nearly 30% https://jamanetwork.com/journals/jama/fullarticle/2765184
- Early identification is key
- Requirement to be remote/virtual to reduce infection transmission v's safe care

# Referral Pathways

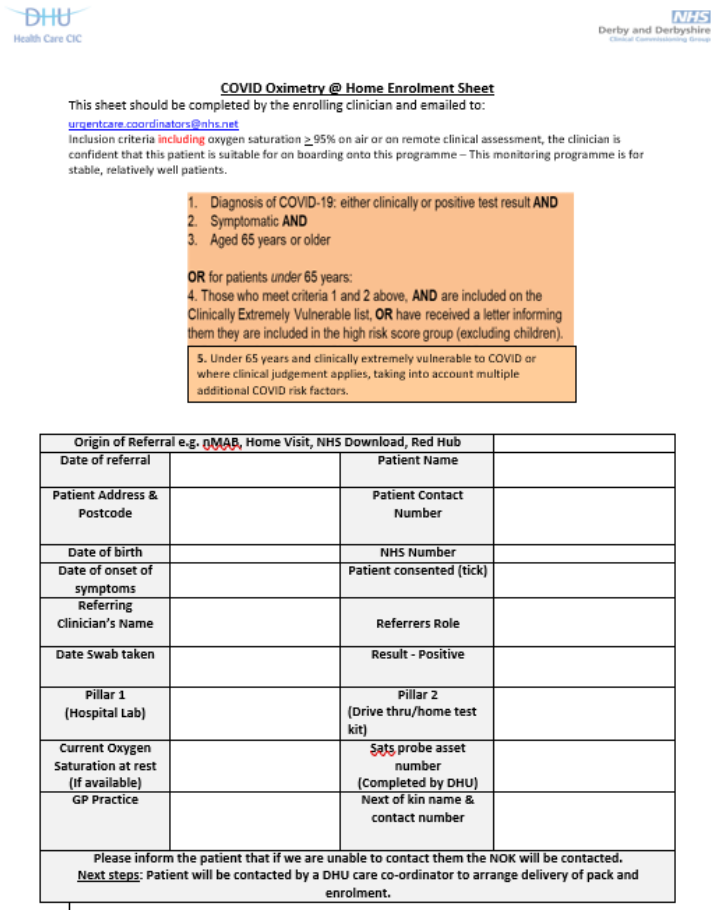
- Manual process
- Red (Hot) Services, Primary Care, EMAS, Emergency Department, Acute Specialities, Care Homes
- Linked to National Database, allowed proactive recruitment
- Dec 2021, implementation of COVID Medicines Delivery Unit (CMDU), direct referral pathway. Embedded within Red Services (community based)

# Inclusion criteria/Enrolment

i. Diagnosed with COVID-19: either clinically or positive test result AND
ii. Symptomatic AND EITHER
iii. Aged 65 years or older OR Under 65 years and clinically extremely vulnerable to COVID

Within 24 hours receive a pulse oximeter, symptom diary, safety netting instructions (dispatch/decontamination/recycling)

Advanced Practitioner review (flexible workforce)
Call back at days 2, 5, 7, 10 and 12
Discharge, day 14 (earlier as variants changed)



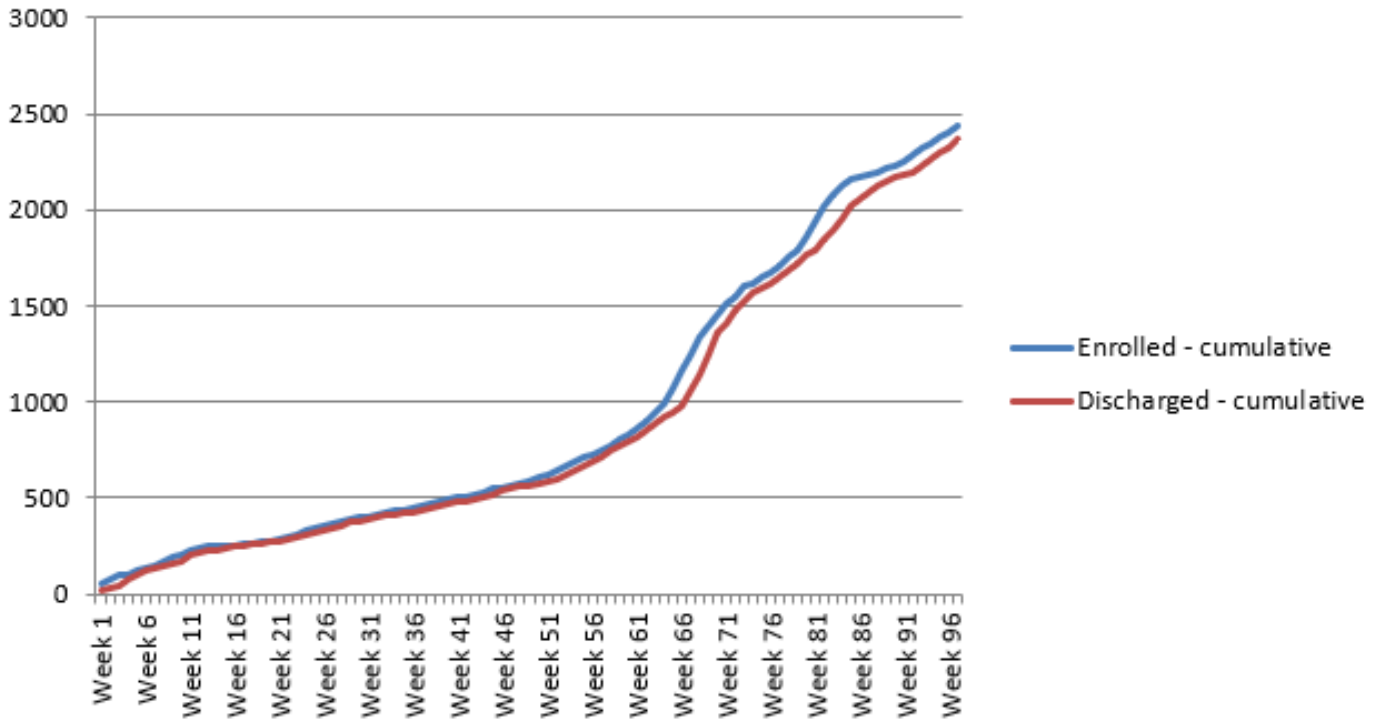
**COVID Oximetry @ Home Enrolment Sheet**

This sheet should be completed by the enrolling clinician and emailed to:
urgentcare.coordinators@nhs.net
Inclusion criteria including oxygen saturation ≥ 95% on air or on remote clinical assessment, the clinician is confident that this patient is suitable for on boarding onto this programme – This monitoring programme is for stable, relatively well patients.

1. Diagnosis of COVID-19: either clinically or positive test result **AND**
2. Symptomatic **AND**
3. Aged 65 years or older

**OR** for patients *under* 65 years:
4. Those who meet criteria 1 and 2 above, **AND** are included on the Clinically Extremely Vulnerable list, **OR** have received a letter informing them they are included in the high risk score group (excluding children).
5. Under 65 years and clinically extremely vulnerable to COVID or where clinical judgement applies, taking into account multiple additional COVID risk factors.

| Origin of Referral e.g. nMAB, Home Visit, NHS Download, Red Hub | | | |
|---|---|---|---|
| Date of referral | | Patient Name | |
| Patient Address & Postcode | | Patient Contact Number | |
| Date of birth | | NHS Number | |
| Date of onset of symptoms | | Patient consented (tick) | |
| Referring Clinician's Name | | Referrers Role | |
| Date Swab taken | | Result - Positive | |
| Pillar 1 (Hospital Lab) | | Pillar 2 (Drive thru/home test kit) | |
| Current Oxygen Saturation at rest (If available) | | Sats probe asset number (Completed by DHU) | |
| GP Practice | | Next of kin name & contact number | |
| Please inform the patient that if we are unable to contact them the NOK will be contacted. Next steps: Patient will be contacted by a DHU care co-ordinator to arrange delivery of pack and enrolment. | | | |

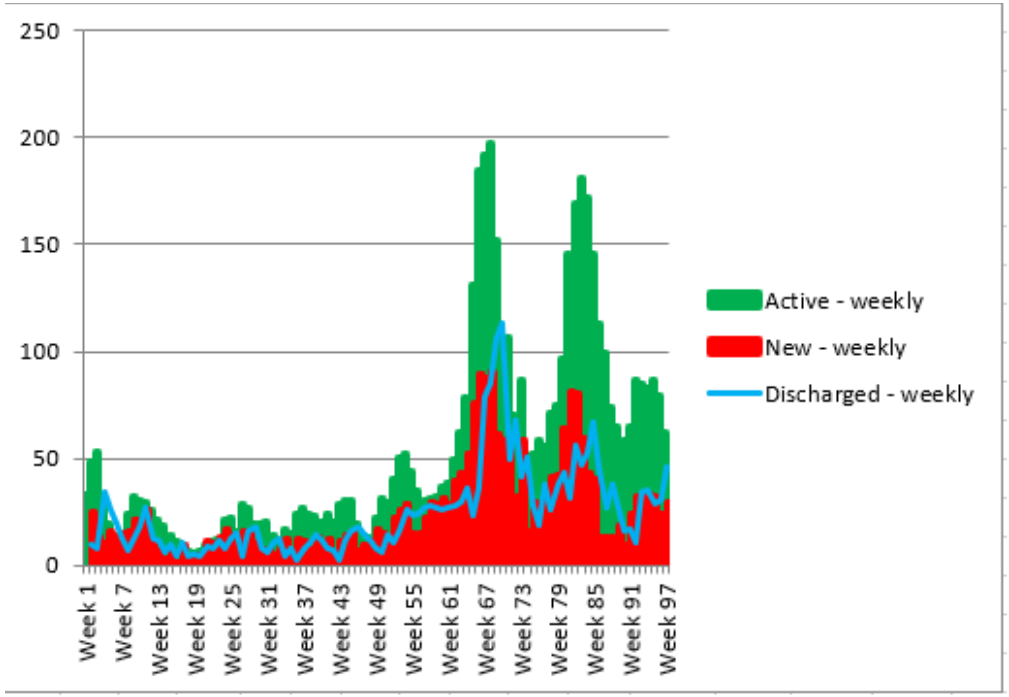


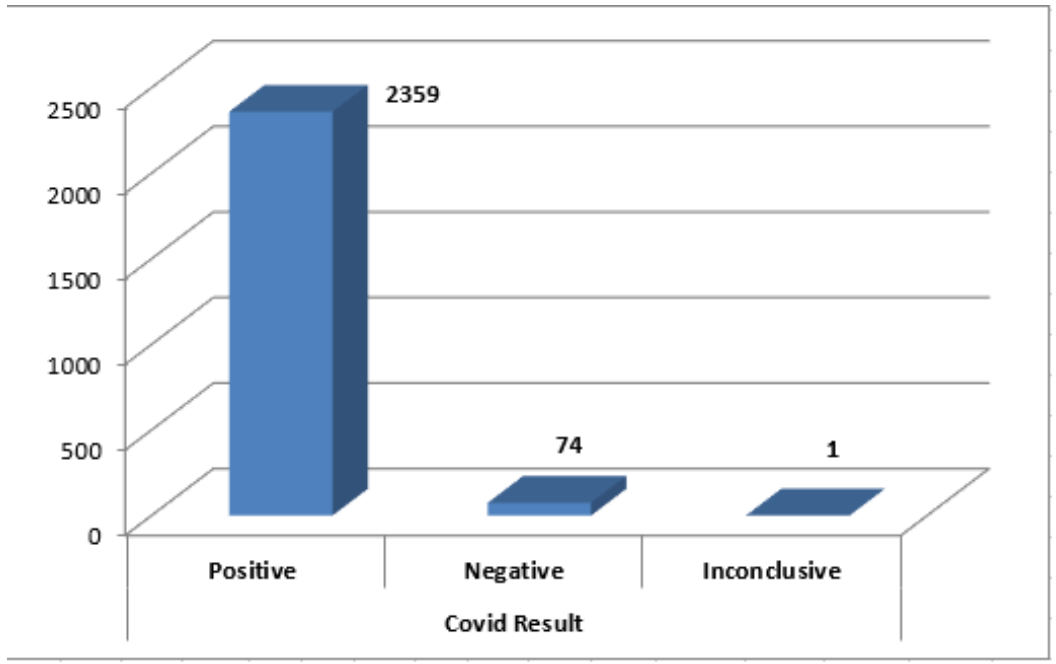

# How does the data look?

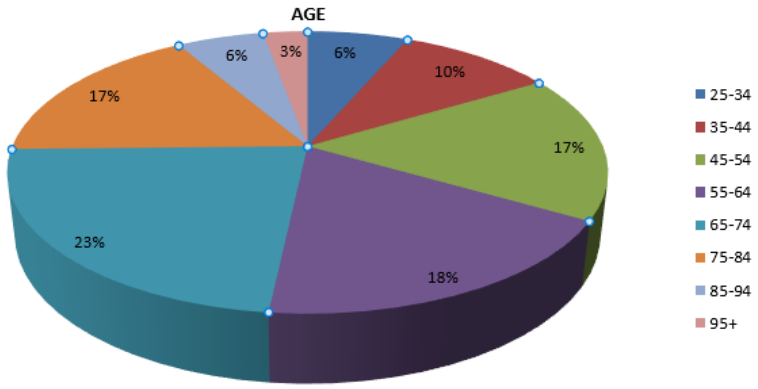
- Approx 2500 patients
- Approaching Week 100

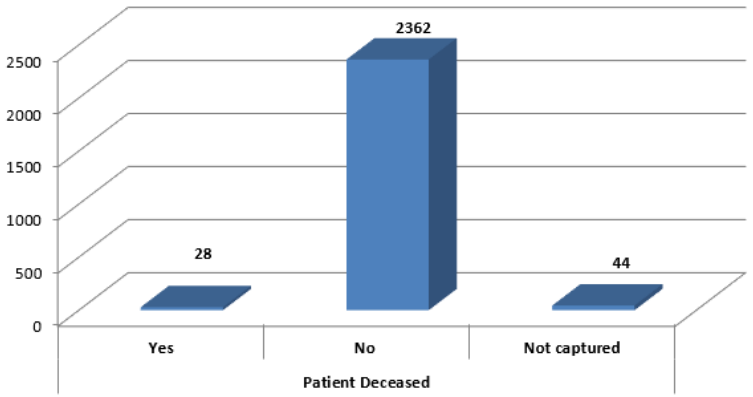
# Data

- Three peaks visible in the graph
- Up to 100 new patients per week
- Up to 200 active weekly
- Enrolled based on clinical symptoms, 3% subsequently negative (discharged)





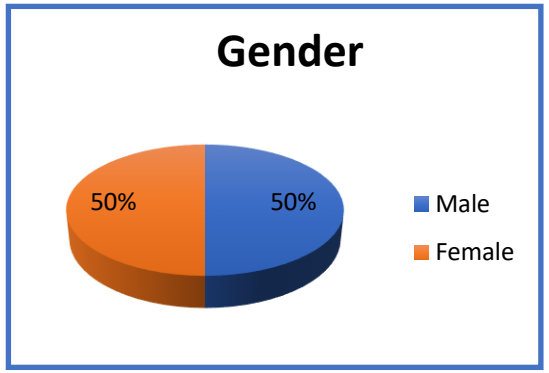

# More data

- 50% <65yrs, 50% >65yrs
- During the programme;
- Small number of deaths (1%)
- Minimal hospital admissions (1%)
- Positive outcome for 99% patients

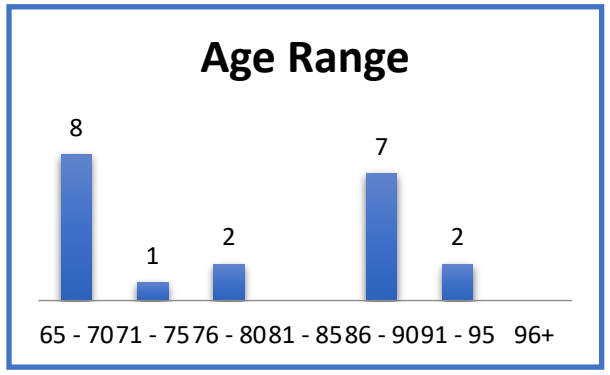
# Benefits

- Appropriate place of care
- Reduced infection transmission
- Reduced risk of hospital admission
- Improved patient experience
- Reduced anxiety
- Dispatch of patient packs
- Face to face referral pathway to support
- Use of Video Consultation
- CMDU data ensures early warning of increased activity (flex staffing model)

# Patient Feedback




# Patient Feedback




- Telephone audit; 20 patients discharged
- 100% found instructions easy to follow
- 100% reassured by support of the programme
- 1 patient found the device difficult to use
- Comments - ‘Very reassuring’, ‘Felt Safe’, ‘Nothing too much trouble’

# Summary & Future Learning

- System wide approach to the Virtual Ward
- Consistent workforce, flexibility
- Integrated services to meet current and future demand
- Community Respiratory Hubs
- Integration of data/outcomes
- Improved use of technology (balance)

# THANKS FOR ATTENDING


2022

## The NHS Virtual Wards Conference 2022

CONVENZIS

# REGISTER FOR OUR UPCOMING EVENTS!


Sign Up Here...

NHS RPA LIVE 2022

THE TIME FOR CHANGE

Sign Up Here...


Sign Up Here...