

# NWAHC: Personas and Journeys Creation

Final Deliverable

April 2025

# Summary of Workshops Insights

PERSONA



## Medical Secretary

KEY INSIGHTS FROM CURRENT STATE

- Responsibilities and the breadth of activities carried out differ across Trusts and departments.
- Medical Secretaries feel they spend too much time correcting forms, letters, and handling tasks outside their defined roles.
- The role is busy and telephone-based, often leaving little time for lunch breaks and lacking support during staff absences
- Some are dissatisfied with career progression opportunities and the current band structure.
- Staff spend a lot of time navigating multiple systems and logging in in the mornings.

KEY CHANGES FOR FUTURE STATE

- There is a desire for a better work routine and freeing up capacity to take proper breaks and lunch breaks.
- Medical Secretaries want more support with their tasks, including training other staff to fill out forms and submit notes more accurately, reducing rework.
- There is a need for faster and more efficient systems.
- There are some worries about the impact of AI on their jobs, and they want to use technology to make their jobs easier but believe the human element is key.



## Digital Service Help Desk

- Some of the main challenges include handling a high volume of requests, many of which could be addressed through self-service, and spending a lot of time on the phone.
- Teams appear well-structured and organised, but there is little time available for self-development.
- Staff would like to provide more in-person support but lack the capacity to do so.
- Staff juggle competing priorities but must try to focus on solving patient-impacting issues first.

- Looking ahead, there is a desire to reduce time spent on calls through the use of self-serve tools and resources.
- Some teams would like to establish a tech bar for in-person assistance as it provides an official route for in-person assistance which can be managed more effectively.
- There is a desire to spend more time learning about AI and using it to log and resolve complex tickets and automatically log issues instead of submitting them manually.
- They would like to be able to spend more time ensuring great customer service.



## Carer of a frail patient

- Carers are often exhausted and there is a lack necessary support from healthcare providers, such as finding wheelchairs, accessible parking spots, or assistance with patient transport.
- They feel undervalued and unrecognised by the healthcare system, despite the savings they represent for the NHS in terms of providing care to patients.
- Carers find that hospital staff do not fully understand the needs of patients, especially those with comorbidities, and sometimes fail to consider these in the person's care.

- In an ideal world, clinicians and services would visit patients, reducing a lot of the mental and physical effort carers usually spend in getting patients to the hospital.
- They wish there were more specific helplines, centres, and support groups for the specific needs of frail patients.
- More accommodating hospital facilities for frail individuals e.g. bookable disabled parking
- They want to feel like their opinions and voice are taken into consideration for the patient's care plan.



## Mental health patient attending an acute hospital

- The hospital environment, especially A&E, does not cater to the needs of mental health patients and is often overwhelming, noisy, and highly stimulating.
- Patients often feel judged and misunderstood by staff, and feel there is a lack of presence and support from mental health-specific staff.
- Patients feel they are discharged too early at times without helpful safety netting or appropriate support.
- Patients often experience delays in receiving community mental health support.

- In the future, there is a desire for better-designed wards, mental health specific ED units, and offering single rooms for patients.
- Improved information sharing between hospital departments and and other organisations involved in a patient's care to make it easier to understand individuals' specific needs.
- Patients want to feel valued, understood, and cared for, rather than just being part of a tick box exercise when it comes to discharge.
- Having alternatives for step down care to provide that extra reassurance and monitoring.

# Personas and Journeys



# Tyler

## L1 Digital Service Help Desk Team Member

### DIGITAL CONFIDENCE



### PROFILE

Male
 27 years old
 Norwich

British
 L1 Digital Service Help Desk Team Member

### COMMUNICATION METHOD OF CHOICE

Post 
 Phone 
 SMS 
 Email 
 In-app

### KEY FUTURE STATE TECHNOLOGIES USED

- Single Sign-On
- Virtual Assistants
- Help desk Omnichannel portal and ticketing system
- Single Service Desk Portal
- Remote desktop connection
- Diagnostic tools
- Video conferencing (e.g. Zoom or Teams)
- Hospital Intranet

## Story

Tyler has been a L1 Digital Service Help Desk Team Member for 2 years. He works 5 days a week on site, but his working hours vary slightly as he alternates between two different shifts. Tyler has always had an interest in information and technology. He has good attention to detail and problem solving skills, and can work effectively under pressure, particularly if there are a lot of urgent tickets or there is a critical incident.

Outside of work, Tyler is passionate about hiking and photography. He likes being in nature and spending time with friends.

### CURRENT STATE

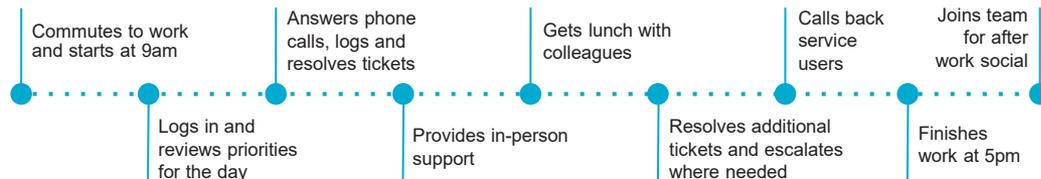
#### Goals

- Providing good customer service and quick resolution to people's queries
- Maintaining a healthy work-life balance
- Maintaining a good relationship with his colleagues
- Upskilling himself and his team in their role in emerging technologies, such as AI, to make their day-to-day work more efficient

#### Challenges

- High volume of requests that could be solved with user self-service
- Patient-impacting issues come first but sometimes there are many conflicting priorities
- There is a variety of ways staff can request help and it is difficult to log and track this
- Critical incidents, which create a large number of tickets with pending resolution

## Day in the life



# CURRENT STATE Tyler: LI Digital Service Help Desk Team Member



## MORNING PREPARATION

## QUERY RESOLUTION

## LUNCH

## QUERY RESOLUTION

## END OF DAY

### STEPS

The steps that the user takes in their journey, interacting with different services and technologies along the way.

Tyler starts work at 9am today. He begins getting ready a couple of hours in advance to ensure he has enough time to organise himself, commute, and prepare for his shift.

He arrives at his desk at 8.45am, logs into the digital service help desk ticketing portal, and quickly scans through his list of queries for the day.

At 9am, Tyler starts receiving phone calls. He answers them while managing his ticket backlog on the portal. He spends the next few hours answering calls.

Throughout the day, Tyler is interrupted by people walking into the service desk office to request support. He submits a ticket for them while he helps them with their issue.

At 1 pm, Tyler takes his lunch break and socialises with some of his colleagues.

Back at his desk, Tyler tries to tackle tickets on the portal, but the phone keeps ringing. He manages to get some work done but feels a bit overwhelmed.

He receives a call from someone having issues with the a device on a ward. Tyler escalates the ticket to the L2 support team for more appropriate support.

At around 3 pm, phone calls slow down and Tyler spends some time focusing on resolving as many tickets as possible.

At 5 pm, Tyler is ready to leave work. He is tired from a few calls that took longer than expected to resolve, as he had to call service users back.

After work, Tyler joins his team for drinks at the nearby pub.

### CHALLENGES

User challenges that affect their experience going through the journey.

The ticketing portal is not user-friendly for service users - tickets are submitted under the wrong heading which impacts prioritisation.

Tyler would like to investigate, complete and learn from some of the issues he is being called for, but the volume of calls or tickets does not allow him to spend enough time doing this.

Staff find submitting tickets through the portal frustrating and some prefer to walk in to resolve their issues in-person.

As a number of tickets are assigned to each digital service help desk team member, the tickets sit unresolved as Tyler takes his lunch.

As phone calls keep coming in, it becomes difficult for Tyler to tackle his initial set of tickets, affecting the resolution time for some cases.

Tickets Tyler cannot resolve have to be manually escalated and still take some time out of Tyler's busy day.

Most tickets relate to queries which can easily be resolved if staff had access to the right information. Instead, Tyler searches for the information and sends the instructions as responses to the tickets, or working with service users to solve the issue.

Digital service help desk staff have a 15 minute call time. If calls go over that limit, team members are asked to wrap up the call and give service users a callback.

There are a high number of tickets relating to password resets, which could be solved with user self-service.

Staff sometimes call the digital service help desk or walk-in because ticket templates do not match their requirements.

Walk-ins make it hard for Tyler to focus on helping people via phone and the portal, which affects his customer service.

Tickets can only be reassigned if a team member goes on leave.

Tickets and issues need to be manually re-assigned if someone has a large workload.

Tyler receives tickets for EPR issues and has to escalate these to the EPR team/supplier and add to their backlog which takes time to implement or resolve.

Walk-ins not being tracked can impact metrics.

### PLUS POINTS

Positive experiences that stand out during the user's journey.

Team days are great for socialising with colleagues and learning from each other.

The ticketing portal automatically prioritises tickets which are then assigned to help desk agents automatically.

Staff appreciate the ability to access the Help Desk team through phone calls if they are unsure.

Tyler is able to use Microsoft Teams to seek help from other digital service help desk team members when needed.

Taking a lunch break is encouraged by leadership to promote efficiency. This also allows Tyler to catch-up with colleagues.

Tyler enjoys talking to people and prides himself on his great customer service.

Tyler appreciated having tools such as Copilot to help him resolve tickets more rapidly.

After-work socials are a great way to catch-up and decompress after a long and busy day.



MORNING PREP

DAY AT THE TECH BAR

LUNCH

WORKING GROUP

END OF DAY

STEPS

The steps that the user takes in their journey, interacting with different services and technologies along the way.

Tyler starts work at 9am today. He gets ready a couple of hours before his shift to organise himself, commute, and prepare before his shift starts.

Today, he is doing one of his two in-person days, and he will be working at the tech bar.

He arrives at his desk at 8.45am and logs into the omnichannel help desk portal using biometrics. No service users are waiting at the tech bar yet. His virtual assistant informs him that a ticket has been assigned to him. He starts working on resolving the ticket using tools like Copilot, the hospital intranet, and community forum to find a resolution.

This is a new issue for Tyler involving the EPR. Tyler receives a flag on his system and the issue is automatically escalated to the EPR supplier to address. Tyler provides a temporary resolution and logs this as a knowledge article on the intranet too, previously notifying and receiving approval from his manager.

People start arriving at the tech bar with queries. They check-in and submit a ticket on a tablet at the tech bar or by scanning a QR code. They receive an estimated wait time and can wait in the seating or are notified on their device when it's their turn. The system automatically prioritises assigning in-person tickets to Tyler to limit queues.

When the tech bar is empty, the system resumes assigning other types of tickets to Tyler. He answers phone calls, uses live chat to solve queries, or takes on new online tickets. Today, a staff member working from home needed help accessing a hospital system. Tyler assists them through a Teams call and using a remote desktop connection.

At 1 pm, Tyler takes his lunch break and socialises with some of his colleagues. He gets lunch from the hospital's canteen and is able to pre-order and see how busy it is online.

In the afternoon, Tyler joins a call with some members of his team. He is part of a working group that identifies recurring queries and suggests fixes to reduce the number of similar queries in the future. Automated reporting also gives Tyler an idea of the most common issues service users experience.

Before leaving for the day, Tyler sets himself as closed for incoming tickets on the portal and resolves his last ticket for the day.

He quickly checks his personalised dashboard to get a view of his performance the day relative to the rest of the team.

After work, Tyler joins his team for drinks at the nearby pub.

BENEFITS

Staff benefits that close the experience gap between the current state and future state of the journey.

★ *Moment of truth where the user's current state challenges are addressed*

Tyler has increased flexibility in his role, allowing him to work from home three days a week while maintaining the social aspect of his job.

This enables him to bond with teammates and provide excellent customer service both in-person and virtually.

★ Tickets are intelligently triaged and assigned to team members based on their skillset, one ticket at a time to prevent backlog for any single team member. A demand-capacity dashboard helps ensure the team is upskilled to meet demand. If Tyler can't find a resolution for an issue, he escalates it and will be assigned another ticket to work on.

★ ITSM technology detects potential issues before staff raise them, allowing Tyler to focus on strategic initiatives. Automated resolution of recurring low-level issues means reduces Tyler's effort on repetitive tasks like password resets, which are automated using RPA. Users can also self-serve via a chatbot linked to an AI-powered knowledge base, resulting in fewer calls and more accurately labelled tickets.

★ In person visits and requests are now logged and tracked.

The tech bar allows Tyler to focus on delivering a service in one area, instead of juggling phones, ticket portal and walk-ins. This helps him deliver better customer service and resolve queries quicker.

Having multiple ways to submit tickets at the tech bar helps manage queues during critical system failures and still enables ticket prioritisation.

Remote connection technology enables staff to get help even when working remotely, allowing the team to support service users across the hospital group.

Service users can carry out an automated diagnostic using the chatbot to diagnose their IT issues. In some cases, the issue can be solved automatically, and in more complex cases, it gets submitted as a ticket for the Help Desk team.

Internet of Things sensors allow Tyler to check which cafe or restaurant is less busy to avoid long queues and spending too much time waiting.

Since Tyler does not have a backlog of tickets, ticket resolution remains efficient. New tickets are automatically assigned to other help desk team members while he goes on his lunch break.

★ Being part of the working group allows Tyler to grow in his role and find solutions to improve the overall experience of service users across the hospital group. As a result, login issues have decreased due to the implementation of biometric SSO.

The working group drives transformation initiatives within the hospital by using data on recurring issues, and takes input from clinical and operational staff on improvements.

★ Being automatically assigned tickets one at a time allows Tyler to leave his desk on time. Tickets coming in after 5pm are assigned to other team members who work different shifts.

Tyler can stay on top of his performance metrics and get a sense of achievement at the end of the day.

After-work socials are a great way to catch-up with the team and decompress after work.



MORNING PREP

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DAY AT THE TECH BAR

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LUNCH

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WORKING GROUP

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END OF DAY

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STEPS

The steps that the user takes in their journey, interacting with different services and technologies along the way.

EPR-ENABLED CAPABILITIES

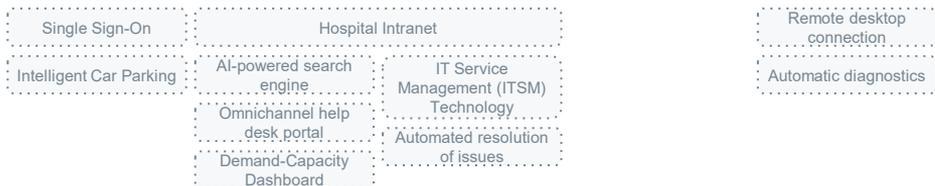


NHP CAPABILITIES

- Fabric
- Footprint
- Flow



ADDITIONAL CAPABILITIES





# Susan

## Carer of a frail or decompensating patient

### DIGITAL CONFIDENCE



### PROFILE



### COMMUNICATION METHOD OF CHOICE



### KEY FUTURE STATE TECHNOLOGIES USED

- NHS Website/App
- Wearable technology
- Remote monitoring
- Digital Front Door
- Enterprise-Wide Electronic Patient Record (EPR)
- Mobile Clinic
- Asset and Location Tracking
- Automatic Dispensing

## Story

Susan acts as an unpaid carer to her father, William (87), who has been diagnosed with dementia and is considered moderately frail. She is the main person responsible for his care and had to opt for early retirement following her father's worsening condition. Susan is responsible for arranging hospital visits and helping William with day-to-day activities. To make caring for her father easier, William moved into her and her husband's house. Susan relies on siblings and other family members to take care of William when she is unable to. Before becoming a carer, Susan used to enjoy sailing and travelling. Her children have all left home and have families of their own, but don't live nearby to support her.

### CURRENT STATE

#### Goals

- Ensuring William's needs are addressed and he is as comfortable and pain-free as possible
- Ensuring William's end of life wishes are respected and she is trusted as a carer
- Provide a voice for William and ensure he is given appropriate care
- Be recognised as a carer

#### Challenges

- Strained personal relationships (e.g. marriage) due to her full-time carer role
- Financial pressures
- Adjustments to her home to accommodate William's needs
- Looking after her own wellbeing when she is caring for William 24/7

## Day in the life



# CURRENT STATE

# Susan: Carer of a frail or decompensating patient



## STEPS

The steps that the user takes in their journey, interacting with different services and technologies along the way.

## CHALLENGES

User challenges that affect their experience going through the journey.

## PLUS POINTS

Positive experiences that stand out during the user's journey.



PREPARING FOR HOSPITAL VISIT	AT THE HOSPITAL	POST-HOSPITAL VISIT
<p>Susan starts her day at 5am, when she hears William wake up. She checks on him and makes sure he has breakfast and takes his medication.</p> <p>Today, William has a hospital appointment. Susan helps him get ready and put on clean clothes. William is being uncooperative and is refusing Susan's help.</p>	<p>Susan finds the appointment location and checks William in at reception. They take a seat in the waiting room and have some snacks while waiting. The clinic is running late so they will be seen 30 minutes after the scheduled appointment time. While waiting, Susan talks to William to distract him from the unfamiliar environment.</p>	<p>After the appointment, Susan drives William home. They are both exhausted, so Susan decides to skip doing William's physio exercises today. They have a microwave-meal and a cup of tea.</p> <p>Susan gives William his evening medication before helping him get ready for bed.</p> <p>Susan's husband ties up after dinner whilst Susan reviews her diary for the next day, ensuring everything is in place and she is aware of any upcoming appointments and care responsibilities.</p> <p>She sits down to watch some TV with her husband and falls asleep on the sofa.</p>
<p>Susan reviews the logistics for the appointment, making sure she knows where they are going. She grabs the hospital bag her husband packed earlier, which includes snacks and a drink, incase they get delayed.</p> <p>Susan calls the hospital to confirm everything is set up for their arrival, but no one picks up the phone.</p>	<p>William needs a wheelchair as he is unable to walk long distances. Susan has to leave William alone in the car while she goes to find one. Wheelchairs aren't readily available at the entrance, but Susan finds a volunteer who kindly tracks one down for her.</p>	<p>At the end of the appointment, the clinician briefs Susan about different carer support groups and resources for carers, which may help make her and William's lives a bit easier.</p>
<p>Susan takes William to the hospital. Today, they need to drive to NNUH for a pacemaker appointment. Driving to NNUH is longer than their normal drive to JPUH, which does not provide this service.</p> <p>The appointment is at 2pm but they leave the house at 10am.</p>	<p>Susan and William arrive at the hospital at 10am, where they struggle to find any available disabled parking spots. Susan ends up having to park further away from the entrance.</p>	<p>William receives care and support from many organisations, so organisations don't have complete visibility of William's healthcare information. There is heavy reliance on Susan's notes and memory when relaying information to clinicians to ensure he is cared for holistically.</p>
<p>Susan has difficulty sleeping peacefully at night as she is worried that William might need her.</p> <p>Susan forgets to eat breakfast as she is focused on taking care of William.</p> <p>Susan helps William need to leave a lot of room around the appointment for any potential issues.</p> <p>While driving, Susan has to constantly remind him of where they are going and why, which is straining.</p>	<p>There aren't enough parking spaces and disabled ones are often all full, which makes accessing the hospital very difficult for Susan and William.</p> <p>Susan's only option to ensure they are dropped-off at the hospital's entrance is to take a taxi. However, these are expensive and she would have to wait around an hour after the appointment to find one to take them back home, adding stress to the journey.</p> <p>It takes Susan a long time to find a wheelchair. Had she not found the volunteer, she is not sure that she would have been able to get a wheelchair.</p> <p>It requires considerable effort to get William in and out of the car.</p> <p>Susan is grateful for the volunteer who was able to help her find a wheelchair.</p>	<p>Going to the hospital was tiring for Susan and William, and disrupted his routing and daily activities, like sitting in the garden, listening to music, and doing his physio exercises. This affected his wellbeing.</p> <p>Susan has little energy left to make a home-cooked meal. Getting William ready for bed is physically tiring and she is left feeling exhausted mentally and physically.</p> <p>Susan does not have time to spend with her husband, friends and family, and often feels that her overall health is not being looked after.</p>
<p>As the two hospitals are connected, William is given an appointment at NNUH despite being a patient at JPUH. Susan did not have to arrange the appointment herself.</p>	<p>The staff are trained to deal with patients with dementia and make sure William is comfortable.</p>	<p>Susan appreciates being involved in conversations surrounding William's care. The MDT team is good at considering William's needs holistically.</p> <p>Susan finally gets to relax for a bit at the end of the day and spend time with her husband.</p>



MORNING PREPARATION

MOBILE CLINIC APPOINTMENT

HOSPITAL APPOINTMENT

END OF DAY

STEPS

The steps that the user takes in their journey, interacting with different services and technologies along the way.

Susan wakes up at 7am feeling well-rested after a good night's sleep, reassured that the remote monitoring system would have alerted her if William needed help.

Today, William has an appointment at the mobile clinic. Susan chose this option but an appointment could also have been made at her local community hub.

After ensuring William has breakfast, Susan helps him get ready and dressed. William takes his medication from an automatic tablet dispenser after brushing his teeth. Susan is notified that he has taken his medication, and his medical records are updated.

William's appointment was scheduled for 10am. At 9.30am, Susan receives an SMS and email that the mobile clinic will be late by 30 minutes, so she takes the extra time to have breakfast and watch some TV with William.

At 10.30am, the mobile clinic arrives at Susan's house and William is seen by a clinician with experience dealing with older adults and dementia patients.

As William is in a familiar environment, the appointment occurs with no major disturbances.

The clinician informs them that William will need an in-person appointment with a specialist to check his pacemaker. They request an appointment and find a free slot for the same day at their local/regular hospital.

Susan agrees to drive William to the hospital and updates her husband before preparing to leave.

Susan receives William's appointment details via SMS and email along with a link with directions to the hospital. She books a parking space as part of the appointment process using an AI chatbot.

They arrive at the hospital, and Susan plugs her car into the charger available at her parking space.

At the hospital, a volunteer is waiting with a wheelchair and helps get William out of the car. The volunteer has been assigned to take William to his appointment and offers to push the wheelchair to give Susan a break. The volunteer guides them to their appointment.

As they walk, the volunteer asks Susan about her experience as a carer and directs her to relevant resources. They arrive in the waiting room, which is equipped with tools to keep William engaged while they wait to be called. When William needs to go to the toilet, the volunteer accompanies him and Susan is offered some tea.

William is called for his appointment. During the appointment, Susan discusses William's condition and his care plan.

Important information from the appointment, such as changes to William's care plan are sent to Susan via email as soon as the appointment ends.

After the appointment, Susan drives William home in time for his community support group and her carer support group meeting. As William's event is led by a trained volunteer, Susan feels safe leaving William on his own, and attends her carer support group meeting.

Back home, Susan, her husband, and two of their friends cook a meal together. They eat and William takes his medication before Susan helps him get ready for bed.

Before going to sleep, Susan spends some time reading and talking to her husband.

BENEFITS

Staff benefits that close the experience gap between the current state and future state of the journey.

★ *Moment of truth where the user's current state challenges are addressed*

Remote monitoring technology such as video cameras and home sensors allow Susan to stay informed on William's activities, e.g. if he opens the door late at night.

Wearable device that William has will notify Susan if William has experienced a fall, provides live location tracking and will contact Susan if he needs help.

As they do not have to go to the hospital, Susan is less anxious, which has a positive effect on William's behaviour. William can take his medication independently when he is lucid, and only sometimes required Susan's intervention. His list of medication is also always up-to-date reducing risk of unwanted interactions.

Susan is notified when the clinician is running late, allowing her to take some time to herself. She is able to see the number of stops the mobile clinic has to take before hers and is given an estimated time of arrival.

Being seen at home puts Susan and William at ease and they have all their information to hand.

The mobile clinic allows William to be seen in a familiar environment; they do not need to drive to the hospital, find a wheelchair while there, or wait in a crowded waiting room.

It also enables clinicians to get an accurate view of William's living situation to provide more personalised care.

The hospitals across the group have a single EPR system with a patient portal with real time clinic availability, allowing patients to book appointments to fill clinic slots after another patient cancels their appointment.

An affordable community car service is available to take them to the hospital if Susan didn't want to drive.

Susan was able to request adjustments using technology she was familiar with.

All communications mention the patient's first name to avoid confusion with the carer.

As William is a patient, Susan was able to park for free. She used an AI chatbot accessible through SMS to book a designated parking bay.

Asset tracking enables quick location of an available wheelchair and Susan doesn't have to leave William on his own.

A volunteer was assigned to William based on his accessibility requirements and previous needs while visiting the hospital.

They easily find their appointment location.

Susan and the volunteer can easily see which disabled toilets are available nearby in real time using IoT sensors.

Susan was already aware of the information available to her as this was shared with her at her when she first became William's carer. This information is readily available on her NHS App and Trust website, but she enjoyed talking to the volunteer.

The hospital has shared care records, so the clinician does not have to rely on Susan's notes to get a complete view of William's past medical history and current status. Susan is able to be fully present and engaged during the conversation and not have to make notes because she knows she will receive a summary of the conversation afterwards.

The clinic uses ambient voice technology to capture the conversation, summarise it, and provide clarity about next steps.

As patient and carer community support groups occur at the same time nearby, Susan is able to take some time to care for her mental and emotional wellbeing. She also has access to a carer portal where she can access moderated forums and get advice from other carers, as well as keep up to date with services available in her area.

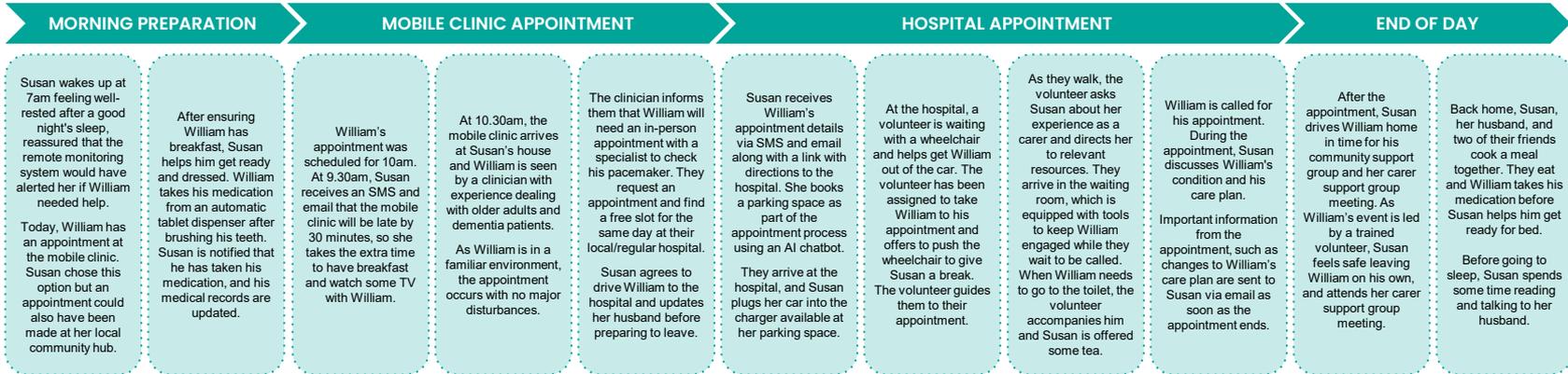
Remote monitoring for William is constantly on in the background. It will notify Susan or call emergency services if the need arises, giving Susan some peace of mind as she goes to bed.

Susan has more energy to spend with family and friends and this has a positive impact on her mental health.



STEPS

The steps that the user takes in their journey, interacting with different services and technologies along the way.



EPR-ENABLED CAPABILITIES



NHP CAPABILITIES

- Fabric
- Footprint
- Flow



ADDITIONAL CAPABILITIES





# Lily

## Medical Secretary

DIGITAL CONFIDENCE



### PROFILE

Female   
 50 years old   
 Aylsham  
 British   
 Medical Secretary at the NWUHG

### COMMUNICATION METHOD OF CHOICE

Post    
 Phone    
 SMS    
 Email    
 In-app

### KEY FUTURE STATE TECHNOLOGIES USED

- Enterprise-Wide Electronic Patient Record (EPR)
- Single Sign-On
- Integrated Virtual Assistants
- Voice Recognition Tools
- Voicemail to email
- Smart Rostering Tools
- Smart Scheduling Tools
- Analytics Systems
- e-Referral Systems

## Story

Lily has been a Medical Secretary for 22 years. Prior to this, she worked as an administrative assistant at a local GP clinic. In her current role, Lily is responsible for typing and sending letters to patients, GP surgeries, and Consultants, maintaining patient records, scheduling some appointments, and supporting Consultants. She is very organised and excellent at multitasking. Lily's favourite part of her job is helping patients and making a difference in their experience. However, she often struggles with financial wellbeing and is worried about the increasing cost of living. Outside of work, Lily has a 17-year-old son and enjoys spending time with him, as well as reading in her free time.

### CURRENT STATE

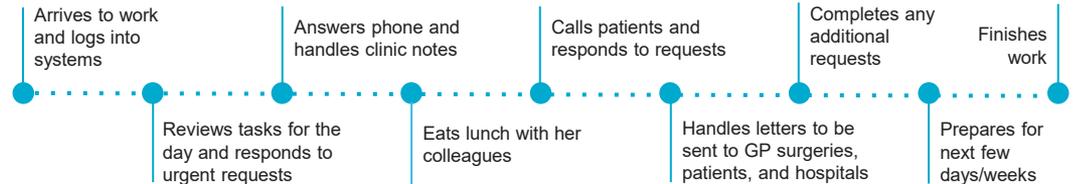
#### Goals

- Advocating for patients and providing them with compassionate and timely support
- Prioritising and juggling multiple tasks and requests effectively
- Supporting clinicians to deliver the best patient experience possible
- Supporting colleagues and ensuring turnaround times for requests are met

#### Challenges

- Increased workload, high demand and staff shortages, leaving no time for wellbeing
- Using multiple hospital systems that are inefficient and have poor user experience
- Managing patient expectations amid competing priorities and performance goals not always aligned to patient's best interests

### Day in the life



# CURRENT STATE

## Lily: Medical Secretary



### STEPS

The steps that the user takes in their journey, interacting with different services and technologies along the way.

#### MORNING PREPARATION

Lily arrives on site 30 minutes before her official start time to allow her enough time to set up her workspace and log into the necessary systems before starting her day at 9am.

Lily starts her day by checking her answering machine for any overnight messages or urgent requests. She then goes through her emails and Teams chats, responding to or noting any urgent matters. Finally, she prints out anything that was approved overnight.

Lily spends the first few hours booking emergency appointments, answering phone calls, and checking her email and other systems. She's busier today, supporting Consultants for her colleague who's on leave. At the end of a call, a patient warmly thanks Lily for her help, putting a smile on her face.

#### MORNING WORK

Lily then types up letters about referral rejections and requests for tertiary care. She also reviews clinic letters and validates that every item has been actioned or if something needs following up.

Most of Lily's morning is spent reviewing and following up on patient pathways. She reviews outcome forms submitted by clinicians and often corrects them to ensure patients are on the right pathways and not hitting roadblocks that could stop their care.

#### LUNCH

Lily is busy and eats lunch at her desk while checking her email inbox for any new high-priority requests. She wanted to attend a wellbeing activity organised by the hospital but is too busy to do so.

In the afternoon, she spends some time booking patients for procedures and operations, as well as booking them for pre-op assessments, and checking patients have been added to waiting lists if required. She has to finish her mandatory training this week, but has no time to do it.

#### AFTERNOON WORK

Most of Lily's afternoon is spent typing letters to patients, GP surgeries, and other hospitals. She uses templates to make her job easier. During this time, the phone rings in the background, but she's too busy to pick it up.

She then sorts out more clinic notes and outcome forms, and makes sure all letters are printed, scanned, and ready to be posted. She also takes some time to manage consultant and junior doctor sickness/leave and their rota to ensure minimal impact on patients.

#### END OF DAY

At the end of the day, Lily checks her answering machine and clears it. She replies to as many emails as possible to try to tackle her busy inbox and prepares anything in advance for the following day.

Lily is ready to leave at 5:30 pm when a Consultant asks her to cancel a clinic. She sends an email for approval since it's less than 6 weeks away and ends up leaving her office at 6pm.

### CHALLENGES

User challenges that affect their experience going through the journey.

Lily uses personal time to log into several slow and inefficient systems, which can take up to 15 minutes. It takes even longer if she's working from home.

Lily's laptop is old and very slow, and the wifi connectivity isn't reliable and robust.

Lily has to check multiple systems for tasks and keep track of some items and patient records on paper. This can be tough to manage.

The role is very departmentalised and sharing data between sites and teams is difficult, particularly if a consultant works across sites.

Many queries from patients could be solved with self-service.

Lily feels pressured to meet patients' expectations in a very busy environment.

Lack of support when colleagues go on annual leave, maternity leave, or leave for menopause.

There are no links or Electronic Referral Systems with other hospitals so these need manual input.

Dictation and voice recognition tools are not accurate.

Having to manually validate clinic letters and look through multiple systems to check if an item has been actioned.

Checking multiple systems for outcomes can be a hassle.

Consultants often struggle with completing outcome forms and don't understand how to fill them out. Lily spends a lot of time correcting these and figuring out what they meant to do.

Lily has no time for breaks which takes a toll on her mental and physical health. Lily rarely steps away from her desk.

Hospital teams promote wellbeing by hosting various activities, but these are often during work hours, so Lily is unable to attend.

Booking and doing pre-op tasks is long and can take up to 10 minutes per patient.

The demanding schedule means Lily has no time for mandatory training or personal development activities.

Some days, the phone doesn't stop ringing, and Lily has to let it go to voicemail to get work done.

There are inconsistent ways of using templates across hospitals and too many different templates for the same purpose.

Since Lily supports multiple Consultants, her days can often become hard to manage due to the volume of work that comes up and the admin tasks she has to pick up.

Lily often deals with last minute clinic cancellations or openings which are hard to manage.

Lily rarely has a clear inbox or answering machine which can be overwhelming.

Lily often ends up working longer hours to complete tasks and meet service targets.

Lily struggles to manage her wellbeing and stop thinking about work and open tasks.

Consultants often come in with last minute requests.

### PLUS POINTS

Positive experiences that stand out during the user's journey.

Lily really appreciates helping patients and receiving a 'thank you' from them.

Having the clinical team close by in the office is great for any queries.

Lily loves having supportive colleagues around.

Lily is proud of the quality of her typing with the amount of work she does.

Lily has a good relationship with the consultants she supports, understands the positive work they do, and likes contributing to that.



MORNING PREPARATION

MORNING WORK

LUNCH

AFTERNOON WORK

END OF DAY

STEPS

The steps that the user takes in their journey, interacting with different services and technologies along the way.

Today, Lily is working on site, where her main consultant is based for the day. She arrives 5 minutes before her 9am start. She logs into her assigned laptop using biometrics and waits a few seconds for the systems and tools to load.

Once logged in, she uses the integrated virtual assistant to review her schedule for the day and view a summary of urgent tasks and updates on patient records. Any overnight queries that need her attention have been added to her daily tasks.

Lily then spends some time answering phone calls and providing support to patients who don't feel comfortable using technology. She books them in for procedures and pre-op assessments, and has the chance to make meaningful connections with them.

Lily takes a short break. Once back at her desk, she proofreads clinic notes and letters to ensure accuracy of medical terms and that they correspond to the patient's history. Any referrals are done automatically by the system.

She then spends some time reviewing patient pathways and sorting through any notifications of unactioned items in clinic letters. She rarely needs to rectify pathways since Consultants understand the process and are supported to fill it out.

Lily goes on her lunch break, enjoying a nutritious meal from the hospital's canteen while socialising with colleagues. She then spends the last 10 minutes of her break walking around the hospital's green areas for some light exercise.

After lunch, Lily quickly reviews virtual and in-person appointments for her Consultants, cancelling necessary clinics and ensuring there are no overlaps or errors in the upcoming schedules.

Lily uses her standing desk for the rest of the afternoon. She approves more letters and focuses on data analysis tasks for national reporting, audits, and patient experience improvement, flagging any issues to Consultants. Finally, she takes a short break.

Lily then has a one-to-one meeting with her line manager to work on a career plan in one of the hospital's working rooms. She steps away from her desk and will come back to her tasks later.

At the end of the day, Lily checks her email and virtual assistant for any urgent queries that have come up in the afternoon. She then goes through her personalised dashboard to get an overview of what she achieved today.

Lily logs out to secure her accounts and leaves the office at 5 pm. She takes her laptop with her as she will be working from home tomorrow.

BENEFITS

Staff benefits that close the experience gap between the current state and future state of the journey.

★ *Moment of truth where the user's current state challenges are addressed*

Thanks to the EPR as a single source of truth, Lily has all the key information in one place instead of multiple disjointed systems. SSO allows Lily to automatically log into all systems within seconds. Lily can set up her laptop to match her preferences and connect to a second screen if needed.

Lily doesn't have to check multiple sources. The integrated virtual assistant summarises and prioritises all outstanding tasks. Thanks to call routing, there are fewer phone queries for Lily, and calls are routed to the right departments. Any overnight tasks needing Lily's attention are added to her list using voice recognition and RPA.

Lily can provide support to patients who really need it. Patients can choose their communication preferences, with the EPR automating comms accordingly, and defaulting to paper if unaccessed. Most patients receive a digital pre-op assessment, and the EPR pulls data from other systems to make filling forms easier for Lily.

Ambient Voice technology automatically generates letters and highlights sections requiring Lily's attention enabling her to proofread more quickly than before. With the converged EPR and automation, Lily can support more Consultants and assist them across different sites. Referrals are all done through the EPR or an integration.

Using dynamic fields, clinical decision support tools ensure Consultants complete outcome forms correctly. Clinic letters are produced by Generative AI and follow-up actions are automatically completed by the system using event-driven triggering. Lily has less outcome forms to review and only looks at complex cases.

Lily has time to eat a nutritious lunch and get some movement during the day. She can check which cafe or restaurant is less busy to avoid long queues. She gets back to work feeling refreshed.

Patients can book, confirm, cancel, and reschedule appointments online, through their health app, or by phone. Lily is notified if there are clashes and only has to approve changes. Consultants communicate all clinic availability and cancellations in good time to avoid last minute changes.

Lily's role now expands to strategic work to better inform healthcare decisions. AI-generated reports mean she doesn't need to do create reports from scratch. Lily can help create reports to share with clinicians. Predictive analytics then helps analyse this patient data and identifies risk patterns, allowing for early intervention, personalised treatment plans, and workforce resource planning.

Lily has time to focus on her development and discuss her aspirations with her line manager. She doesn't feel guilty stepping away momentarily as she feels supported by the technology and her team. When she goes on annual leave, her tasks are dynamically assigned to the most suitable colleague using an AI-driven system.

Automated EPR reporting and analytics allow Lily to see clinic and service metrics in real-time, and get a sense of achievement for everything she has been able to do. She can also see waiting times and notifications about patients about to breach RTT.

Lily feels grateful to have flexibility at work and be able to go home to relax. She really appreciates this great work/life balance. Systems are cloud-enabled to ensure she has access to all her work and important files remotely.



MORNING PREPARATION

MORNING WORK

LUNCH

AFTERNOON WORK

END OF DAY

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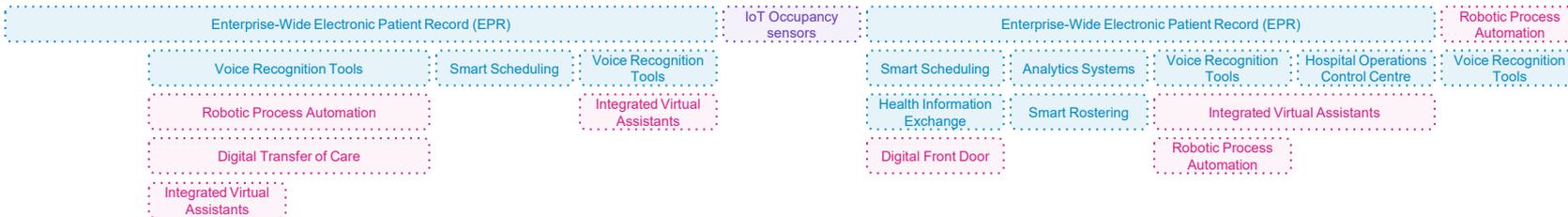
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EPR-ENABLED CAPABILITIES



NHP CAPABILITIES

- Fabric
- Footprint
- Flow



ADDITIONAL CAPABILITIES





# Joe

## Mental Health patient attending an acute hospital

### DIGITAL CONFIDENCE



### PROFILE

 Male
  20 years old
  Norwich

 British
  History student

### COMMUNICATION METHOD OF CHOICE

 Post 
 Phone 
 SMS 
 Email 
 In-app

### KEY FUTURE STATE TECHNOLOGIES USED

- NHS App and Digital Front Door
- Wearable Technology and Medical Devices
- Digital Patient forms
- Remote Monitoring, and Telemedicine
- Virtual Reality / Augmented Reality Headsets
- Integrated Bedside Technology and Smart Beds
- Electronic Prescribing & Medicines Admin

## Story

Joe has a keen interest in medieval history and is studying a degree in History at the University of East Anglia. Diagnosed with anxiety and depression, Joe finds social activities challenging and struggles to focus on his studies during low days. Running helps him stay calm, and he had been attending therapy sessions regularly on the NHS until his prescribed treatment period ended. Over the past two months, Joe had a relationship breakdown and his mental health has declined rapidly, leading to feelings of hopelessness and isolation. In a moment of crisis, he took an overdose of paracetamol and is now being seen in A&E at NNUH.

### CURRENT STATE

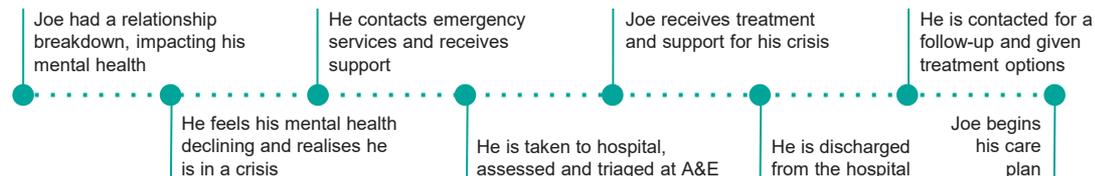
#### Goals

- Receive immediate help for his overdose and mental health support
- Feel listened to, understood, and taken seriously by medical staff
- Continue progressing his degree in History
- Stabilise his mental health and develop strategies to prevent a future mental health crisis

#### Challenges

- Feeling isolated, finding it hard to engage and open up to people around him
- Difficulty accessing timely mental health support when mental health starts to decline
- Ineffective or unhelpful resources
- Balancing his studies with his mental health struggles
- Hospital environments can make his mental health worse

#### Day in the life



# CURRENT STATE

## Joe: Mental Health patient attending an acute hospital



### MENTAL HEALTH CRISIS

### GETTING HELP

### ATTENDING HOSPITAL

### DISCHARGE

### FOLLOW-UPS

#### STEPS

The steps that the user takes in their journey, interacting with different services and technologies along the way.

Joe feels his mental health declining. He is feeling hopeless, anxious, and extremely low. He takes an overdose of paracetamol to numb the pain.

He quickly realises what he has done and calls 999 as he knows his life could be in danger and wants to get advice on what to do and where to go.

Joe is advised to get to A&E urgently but he has no one to take him. There are very few ambulances available but the person on the phone manages to find one and sends it to Joe's address.

Once the ambulance reaches Joe, the paramedics see that he is in a mental health crisis. They stabilise him and drive him to the nearest hospital A&E.

Joe is triaged and assessed in the hospital. He starts treatment for his overdose, which takes several hours. Because of the infusion time, he stays overnight in the hospital, with staff checking in on him regularly.

Joe is referred to the mental health liaison team at the hospital. They see him very briefly, ask a few questions to evaluate his mental state, and decide if he needs further treatment or referrals.

Joe's liver results come back normal, so he's at low risk of liver damage. After finishing his treatment, Joe has a mental health assessment to determine his mental state and is given approval to be discharged.

The staff give Joe some leaflets with information about resources he can access. They also inform him about next steps and provide support lines he can call if needed.

Joe is discharged to his community mental health team and can now go home. He has no one to take him home, so he gets a bus home.

Two weeks later, Joe decides to call his GP to book an appointment to discuss his mental health, as the community mental health team hasn't followed-up with him yet. The earliest he can see his GP is in a month.

3 weeks post-discharge, the community mental health team follow up with Joe. 1 month post-discharge, Joe attends his appointment with his GP. He is prescribed some medication and put on a 6 month waiting list for therapy.

#### CHALLENGES

User challenges that affect their experience going through the journey.

Joe has not had regular mental health check-ups with a therapist or his GP.

He previously had therapy sessions through the NHS, but these ran out, and he didn't want to go through the tedious process of applying for further sessions.

Joe wasn't aware of the support available to him in this scenario and that he could have called the 111 mental health line.

Joe lives on his own and does not have his family close by for support or to take him to the hospital.

The ambulance takes longer than he expects to arrive.

Joe feels lonely and worried as he is transported to the hospital. He is uncomfortable in new environments.

Paramedics aren't trained to deal with mental health concerns.

Ambulance crew notes aren't easily received by the hospital, leading to a slight delay in triage and patient acceptance.

The busy and noisy waiting room affects Joe's mental health.

Most staff aren't mental health specialists and might not fully understand its importance.

Joe feels uncomfortable discussing his mental health in an environment with little privacy and dignity.

The mental health team are often stretched for time and do not have the capacity to follow-up with Joe regularly while he is in hospital.

Some staff seem prejudiced or unsympathetic towards Joe because his condition is "self-inflicted." This makes him feel dismissed and unimportant.

Liaison staff are often busy and have limited availability. Joe feels he is being rushed through the assessment and doesn't understand the purpose of some of the questions.

Joe is hesitant to go home and feels like he needs more support.

Joe feels like he is being discharged too soon and the whole process feels rushed.

Joe doesn't find the leaflets useful and knows he'll forget about them or misplace them if he needs support later. He isn't signposted to any other support services.

Joe is scared to be alone and does not want to go home.

Staff are too busy to arrange transport for discharged patients, and Joe can't be picked up by family or friends. He has to arrange his own transport.

There is no follow-up from the mental health team at the hospital and it takes Joe longer than he would like to see his GP or the community mental health team.

Joe is frustrated at the lack of support on post-discharge and scared he will start feeling very low again soon.

Joe worries about how long he will be on medication for his mental health. He would like to come off it at some point when he is better, but knows this might be a long journey.

Therapy waiting lists are extremely long and alternative options might lack impact or are too expensive.

#### PLUS POINTS

Positive experiences that stand out during the user's journey.

Joe appreciated being able to receive therapy through the NHS.

The 999 call responder Joe speaks to on the phone is very empathetic.

Joe is grateful an ambulance was able to take him to the hospital.

Joe feels listened to and understood by some of the mental health staff at the hospital.

Joe is grateful to see his GP and be contacted by the community mental health team to receive treatment and improve his mental health.



## MENTAL HEALTH CRISIS

Joe's mental health is declining. He's feeling hopeless, anxious, and extremely low.

His wearable devices tracks his activity and vitals, and he receives a prompt through his mental health app to seek help urgently as he might be in a crisis.

Joe immediately uses his phone to seek mental health support via his mental health app.

The app connects him to a healthcare professional who gives advice and directs him to the nearest mental health A&E unit.

## GETTING HELP

Joe is at a risk to himself and needs to get to A&E. Because he is on his own, the healthcare professional arranges for a mental health responder to take him to the hospital.

They stay connected with Joe via video call to provide reassurance and monitor his condition until the responder arrives.

Once the mental health responder arrives, they quickly assess Joe's condition. They stabilise him, update the EPR, and take him to the nearest hospital, where he is admitted to the dedicated mental health A&E department at NWUHG.

## ATTENDING HOSPITAL

At the mental health A&E ward, Joe is promptly triaged and seen by a mental health specialist who checks his immediate well-being and vital signs. He's offered food, water, and tea to help him feel more comfortable while he waits. The ward's low-stimulus environment helps Joe feel more at ease.

Joe is taken to a private room where he receives treatment. He can adjust the lighting, temperature, and other elements of the room to help him feel comfortable, and use digital wayfinding to find a vending machine. Doctors in the ward monitor him remotely using advanced technology in the room and assist if needed.

Joe stays overnight for observation and treatment monitoring. In the morning, the mental health team assess him and deem him fit for discharge. They provide him with discharge and treatment options. Joe chooses to be discharged to the Virtual Ward along with receiving therapy sessions.

## DISCHARGE

When Joe is discharged, transport is arranged to track his journey and ensure he gets home safely. He is provided with wearables to monitor his symptoms and a Virtual Ward pack to set up at home, as well as being assigned a community mental health contact who will follow up with him regularly.

Joe gets home and sets up the equipment, which only takes 5 minutes.

When he's at home, he receives a call from his community mental health contact to check on him. He also gets a message on his health app about being referred for therapy with options for appointments in the same week.

## FOLLOW-UPS

Over the next week, Joe's mental and physical health are monitored remotely. He doesn't need to change his routine; he simply checks in using his smartwatch and has daily video calls with his community mental health team. Information about his vitals and medication is automatically added to his records.

At the end of the week, Joe has a virtual appointment with a mental health specialist who discharges him from the Virtual Ward. Together, they co-produce a care plan, which is sent to him via email. He returns his Virtual Ward pack and equipment by pre-paid.

## BENEFITS

Staff benefits that close the experience gap between the current state and future state of the journey.

Joe's wearable devices track some of his vitals and metrics.

Predictive analytics use passive symptom tracking, analysing data from his wearables and social interactions to alert Joe that his mental health might be declining and prompt him to seek help.

Joe can connect with a mental health crisis team directly and quickly through their dedicated channels.

With access to Joe's EPR and mental health app, the healthcare professional can review his records and provide better advice over the phone.

The healthcare professional is trained to handle mental health crises, supporting and calming Joe. He feels listened to and taken seriously.

Joe appreciates having transport arranged, as any delays could mean he wouldn't attend or get help.

The mental health professional uses remote EPR access to update Joe's record for the receiving hospital team, avoiding lengthy in-person handovers. The receiving team can now view Joe's information and initial assessment on the system in real time.

Joe appreciates not being asked the same questions repeatedly thanks to the EPR.

The mental health A&E ward is welcoming and less stimulatory, with a comfortable waiting area.

Patients have the option to wait in single rooms for more privacy and to make them feel more comfortable having open discussions.

VR headsets are available to immerse patients in a more calming environment while they wait.

Joe can discuss his treatment and circumstances in a private environment. He feels reassured knowing doctors will be with him if needed thanks to remote monitoring.

Connected records allow hospital staff to access any therapy or counselling notes and treatment he has previously received from other organisations or hospitals.

Joe's stay is pleasant, and he feels grateful to be in an environment catered to his mental health needs, with healthcare professionals who listen and understand him.

All relevant medical teams access Joe's health records using handheld devices.

The hospital staff ensure Joe gets a secure mode of transport home.

Being discharged to a Virtual Ward means Joe can go home and still be supported and monitored.

Integrated care records and smart referral forms ensure that referrals for Joe's continued treatment are made quickly and go to the right people.

Joe feels cared for as he makes it home safely and receives a prompt follow-up from his mental health contact.

Setting up the Virtual Ward pack is easy and Joe feels grateful to be receiving support in the comfort of his own home.

His is contacted according to his communication preferences.

Joe feels supported and is happy that someone checks in with him regularly whilst he is recovering at home.

Video calls with his community mental health team have been vital in helping him feel better. He is also able to access an AI-powered therapist for out of hours, continued care.

Joe likes the feeling of having a plan around his mental health and knowing that despite being discharged, he will continue to have his mental health looked after.

He is grateful to get a timely therapy appointment and to be able to return his Virtual Ward pack easily.

★ *Moment of truth where the user's current state challenges are addressed*



### MENTAL HEALTH CRISIS

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### FOLLOW-UPS

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### EPR-ENABLED CAPABILITIES

Mobile EPR

Smart Triage

Mobile EPR

Integrated care records

Digital Front Door

Event-driven triggering

Digital transfer of care

Electronic Prescribing & Medicines Admin

### NHP CAPABILITIES

Medical devices

Enterprise-Wide Electronic Patient Record (EPR)

Smart Triage

Smart Beds

Digital Transfer of Care

Electronic Prescribing & Medicines Admin

Remote Monitoring and eObservations

Integrated care records

Digital Front Door

Integrated Bedside Terminals (Integrated Bedside Technology)

Remote Monitoring

Digital Wayfinding

Personal Health Record

Telemedicine

### ADDITIONAL CAPABILITIES

Wearables

Ambient Voice Technology

Virtual Reality / Augmented Reality headsets

Intelligent Nurse Call

GPS tracking

Predictive analytics

Digital therapeutics

- Fabric
- Footprint
- Flow