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A Holistic Approach to Lymphedema and Wound Care

MASD - 2024

AfterCare⁺

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— THANKS A LOT !

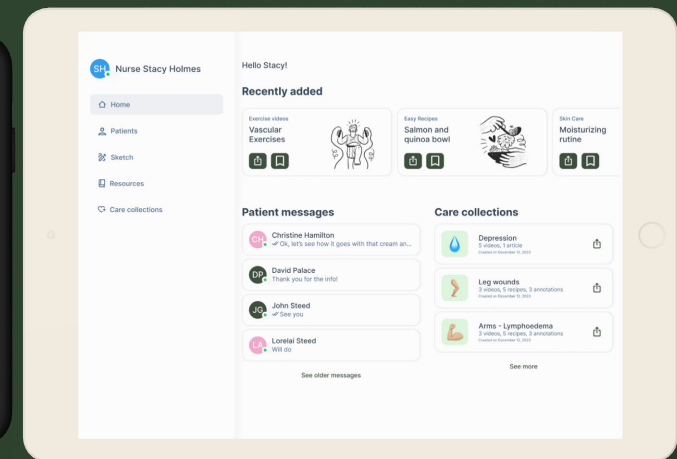
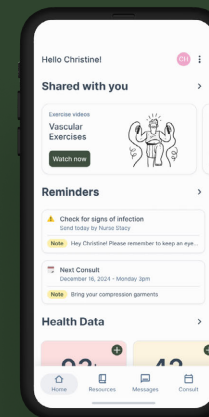
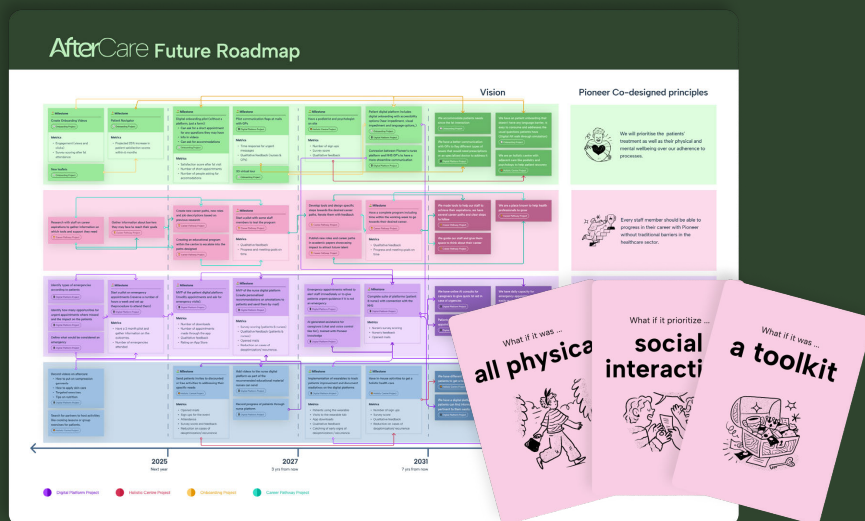
Project Summary

01

This service creates a more supportive healthcare environment for lymphoedema and wound care patients and their families within the National Health Service (NHS), as well as give tools to nurses and administrative personnel to use anticipatory innovation in order to keep improving their services. This service will consist on:

A workshop and future roadmap using anticipatory innovation and backcasting to plan for specific activities and goals across a 10-year span

An initial design of a digital platform to better support patients and nurses throughout the care journey



Project Summary

02

The whole design process was conducted in collaboration with the Pioneer centre and the Future Nurse organisation and involved a comprehensive research phase, co-design activities, and iterative development and testing of design proposals. Through an initial discovery phase, we found that while the trust's front-of-house operations and physical spaces had some minor issues, the more significant challenges centred around patient engagement and adherence after initial treatment.

Some of the key findings gathered from the research conducted included:

Patients struggle to understand and adhere to their full treatment plans

Managing the emotional and psychological aspects of their condition is just as important as managing their physical conditions

Effective communication across all the actors in the service is a main concern and can make a real difference in patient care

Regular follow-up appointments are essential for adjusting treatment plans but after some time, patients get appointments farther from each other and there is less support if they need it.

Project Summary

03

This challenge was address using two key approaches:



Holistic Care Approach:

Providing holistic treatment encompassing diet, fitness, and skincare; encouraging patients to persist with their full treatment plans; offering ongoing support and follow-up to ensure adherence; and integrating psychosocial support for patients and their caregivers.

Anticipatory Innovation

Using anticipatory innovation techniques to envision a preferable future for lymphoedema and wound care services, developing practical action plans to achieve this vision, and engaging stakeholders in future planning and innovation.



Finally, by taking a user-centred, design-led approach to address this challenge, this project demonstrates the value of service design and strategy through design in the NHS context and provides a model for scaling similar projects in the future.

Abstract

This report documents the service design project conducted in collaboration with Pioneer Wound Healing & lymphoedema Centres and Future Nurse organisation, focusing on improving aftercare support for people living with lymphoedema and chronic wound patients. The project employed a human-centred design methodology, incorporating design futures and co-design approaches. Through comprehensive research including stakeholder interviews, surveys, and site visits at multiple Pioneer centres, key insights emerged around the importance of holistic care and the challenges of maintaining long-term treatment adherence as well as the need to incorporate design approaches into the overall strategy.

The two main methodologies to tackle the overall project were: a holistic treatment approach addressing physical and psychological aspects of care; and an anticipatory innovation framework to guide future service improvements and incorporate design strategy into the centre management. The project deliverables include a workshop framework for anticipatory innovation and the initial design of a digital platform supporting both patients and healthcare providers.

This report details the end-to-end process from initial research through conceptualization and implementation, demonstrating how service design methodologies can drive meaningful innovation in healthcare settings. The outcomes provide a model for scaling similar user-centred design approaches across NHS services, while contributing to the broader discussion of design's role in healthcare transformation.

Keywords: Service Design, Healthcare Innovation, Patient Experience, Anticipatory Innovation, Co-design, Lived Experience, Holistic healthcare design, NHS, Wound Care, lymphoedema.



Glosary

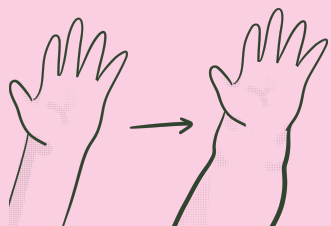
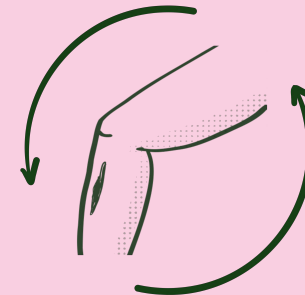


Chronic wounds

Chronic ulcers or wounds refer to injuries that have persisted for more than three months and that even with appropriate treatment are not fully healed after one year (Agale, 2013). About 1-3% of people over the age of 60 are affected by this condition and, as a result, they experience prolonged pain and restricted mobility, which end up reducing their quality of life significantly. Often, these ulcers take several months or even years to properly heal and there is often a chance of reappearance or recurrence which can result in a life long condition (Finlayson, Edwards and Courtney, 2014).

Recurrence

Is the reappearance of a skin break on the same anatomical place after it had achieved complete closure and persisting for more than six weeks (Nelson, Bell-Syer and Cullum, 2000). After the wound is healed, there is a recurrence of as many as 60% to 70% of patients because of the decline in after treatment adherence after a year to the main strategies recommended by health professionals (compression garments, exercising, skin care, etc.), or depression due to social isolation because of the restricted mobility they might suffer, or both. (Finlayson, Edwards and Courtney, 2014).



Deoptimization

Deoptimization in lymphoedema is a term used by nurses at Pioneer that refers to the deterioration of a previously well-managed lymphoedema condition, this is characterised by an increase in limb volume and changes in the affected tissue after achieving successful reduction through regular treatment such as usage of compression garments or complete decongestive treatment (Ferrell and Paice, 2019).

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01

Background

a.

About this Collaboration

"Future Nurse" is an organisation that promotes nurse-led Digital Transformation in healthcare and advocates for digital technology and data to better care for patients no matter their location or condition (Future Nurse, 2024). Future Nurse initiated a collaboration with UAL, to work alongside four MA Service Design students at three locations at NHS Trust with senior nurses to address previously identified problems. The objective of this partnership was to demonstrate the value of user-centred design approaches in healthcare settings and the power of collaboration between interdisciplinary professionals.

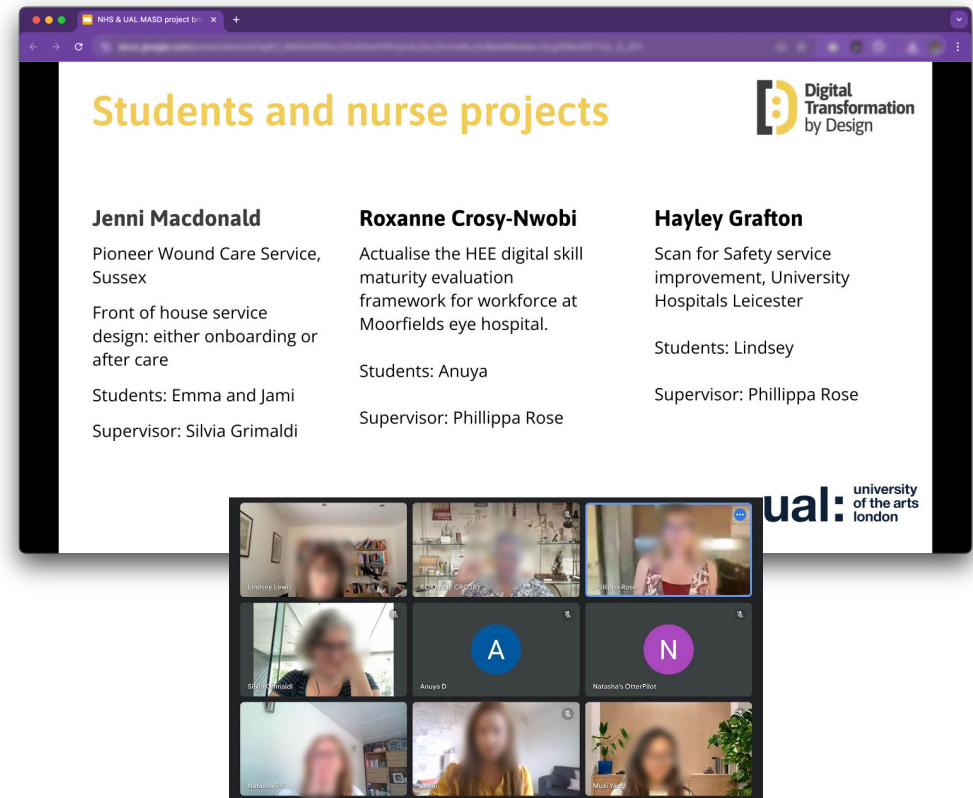


fig.1 Screenshot taken by Emma (Muzi Yang) June 24 2024

Throughout this project, four MA Service Design students were distributed across three NHS Trust locations and, unlike the other two students who worked independently with their assigned stakeholders, I had the opportunity to collaborate with Emma (Muzi Yang) at Pioneer Wound Healing & lymphoedema Centres. This collaborative approach proved beneficial to both as we were able to work together during the critical initial stages of exploration and reframing of the project, sharing research methods, comparing insights, and building upon each other's findings to develop a more comprehensive understanding of the challenges at hand.

While our initial collaborative research provided a strong foundation, Emma and I eventually identified different opportunities in Pioneer's service and we ended up focusing on distinct stages within the service, prompting us to develop independent projects that complemented rather than duplicated each other's work.



b. Initial Brief

The initial brief focused on front-of-house operations at Pioneer's Eastbourne Centre and the new Crawley Centre they were about to open, addressing challenges such as greeting practices, reception area layout, and wayfinding.

However, early research revealed surface-level issues that were easily fixable with some guidelines and small adjustments, and we could reframe the scope of the project to address other important pain points in the service and moreover, focus on design as a strategic methodology to deepen the knowledge of managing stakeholders at Pioneer on some initial concepts like co-design and the differences between Service Design and other design practices such as Interior Design.

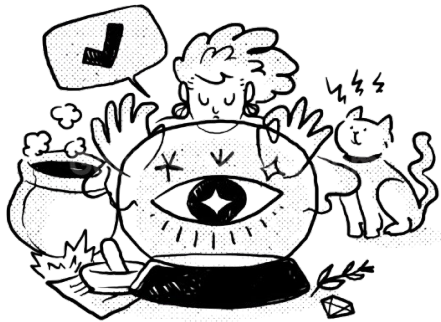
It was decided then that the initial brief would be treated as a separate project and use it as an opportunity to build trust and as a co-discovery exercise with stakeholders.



Methodology

a.

Academic Framework



Design Futures and Anticipatory Innovation

By employing design futures strategies, we can envision and strategise to shape the future into a preferable one. This approach would help Pioneer to keep on innovating proactively by incorporating elements of backcasting, defined by Quist and Vergragt (2016) as "working backwards from a particular desired future end-point to the present to determine (...) what policy measures would be required to reach that point." In this context, backcasting helped identify the necessary steps to achieve the desired improvements in the overall service with particular focus on patient aftercare support.

"Everyone designs who devises courses of action aimed at changing existing situations into preferred ones"

– Herbert Simon, 1996



Co-Design in Healthcare

Another central methodology is co-design, involving nurses, patients, and other stakeholders to collaborate in the research, design, test and strategy of the project. Bringing them into the development process helped gain their unique perspectives to better address their own problems with the knowledge of their lived experience, also known as experience-based co-design. This approach is particularly valuable in healthcare settings to lead a more effective and sustainable service improvement (Bate and Robert ,2020).

The co-design process included:

- Workshop facilitation with healthcare professionals
- Collaborative solution development activities
- Strategic future forecasting activities
- Participatory roadmap development

"Healthcare systems are shifting from a centralized and authoritative approach toward a decentralized and collaborative approach, which favors partnerships and co-creation. (...)The key philosophy is that people need to participate in the design of the healthcare products, services, and systems that affect them."

– Røhnebæk, Engen, & Bast, 2023



Integrated Care and Human-Centred Approaches

Embracing human-centred design principles within an integrated care framework allowed us to address problems within the service with a holistic approach that emphasises coordinating different healthcare touchpoints and experiences to consider the entirety of the patient journey rather than just the isolated experience of the centre. As well as to ensure that any proposed solutions not only address clinical or physical needs but also psychological and social aspects of care (Ku and Lupton, 2020).

"Recognizing social determinants is a crucial aspect of health care. Expanding on the particularity of each person's unique experience, health design thinking considers the broader demographic factors that cause health inequality"

– Ku & Lupton, 2020

b.

Research Methods

The methodology employed a mixed-methods approach including:

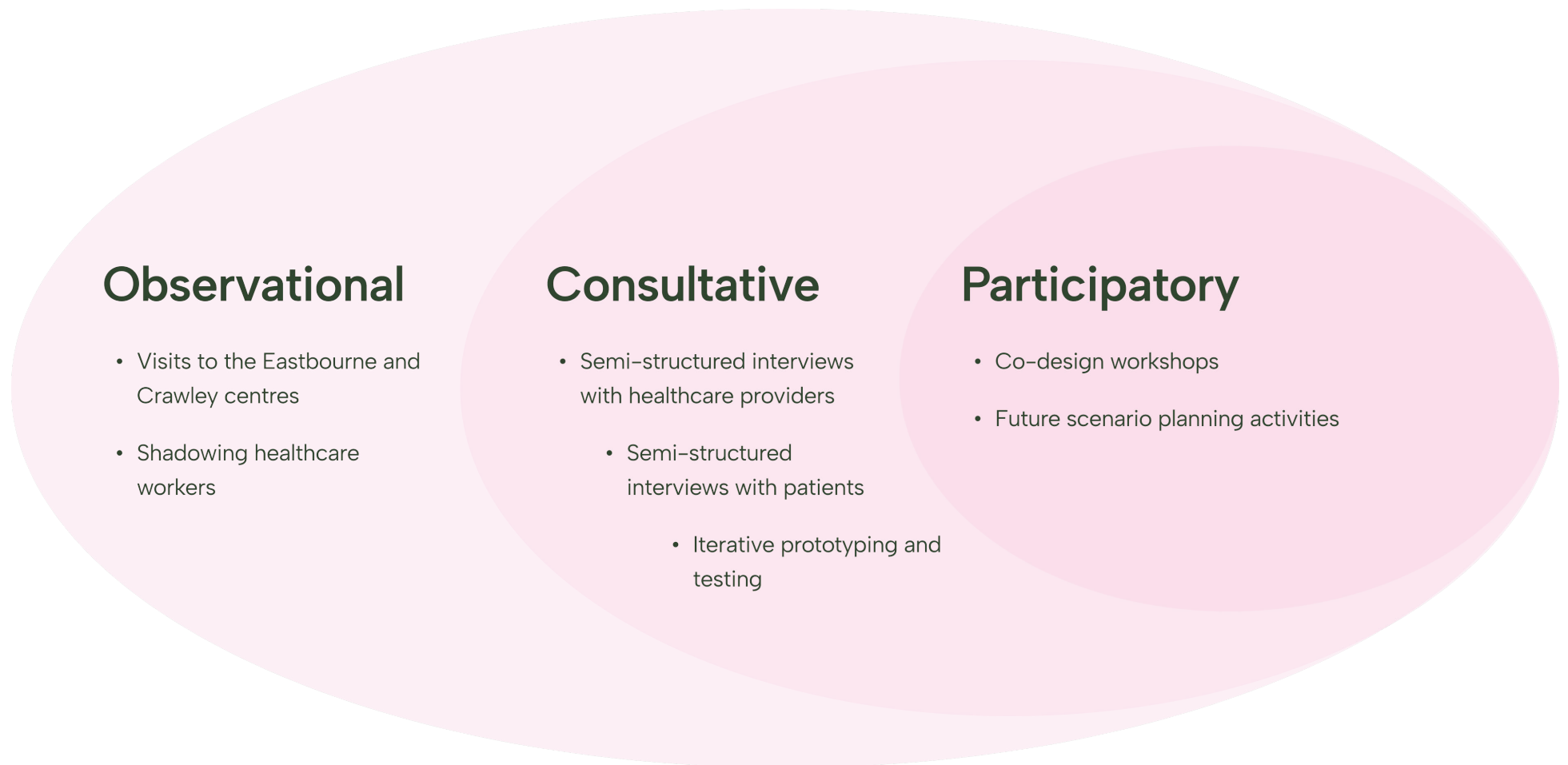


fig.2 Research Methods Graphic

Exploring

a.

Desk Research

About the Pioneer

Pioneer Wound Healing & Lymphoedema Centres is the UK's largest specialized wound healing and lymphoedema service provider, operating through a network of nurse-led teams. Headquartered in Sussex and operating for over 25 years, the organization has established itself as a leader in both specialties, consistently achieving exceptional healing outcomes and excelling in patient care and relationship building (Home - Pioneer Wound Healing and Lymphoedema Centres an Independent Provider).

Pioneer's network consists of six locations:

- Eastbourne (Main center)
- Crawley (New facility)
- Burgess Hill
- Norfolk (Lymphoedema specialist center)
- Birmingham
- Horsham (Planned closure)

These centres provide care through clinical inpatient treatment at their site, but also through telehealth and collaborative support for hospitals, hospices, community nursing and nursing homes.



Previous Surveys

Gathered data from anonymous patient surveys taken in April 2024 demonstrates an overwhelming patient satisfaction across Pioneers' services, patients consistently praise not only the clinical outcomes but also the personal care and friendly approach of the staff.

Notable testimonials include expressions of gratitude for pain relief and successful management of conditions and healing of chronic wounds, with several patients specifically acknowledging individual staff members' contributions.

"I cannot speak highly enough with regard to the care and friendly service I have received"

"I'm very very happy in every way, enjoyed chatting to the staff and have learnt so much"

And while most feedback was overwhelmingly positive, some constructive comments were received regarding facility access, specifically regarding car park navigation and lift functionality, indicating areas for potential improvement (Pioneer Centres, 2024).

How would you rate your overall satisfaction with the service provided?

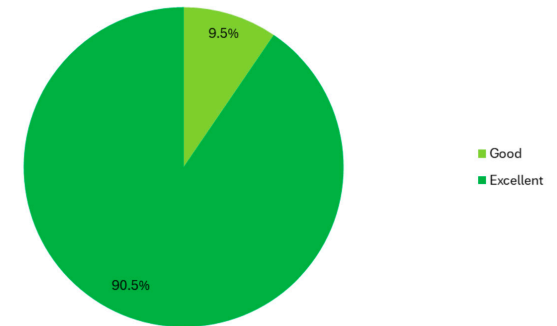


fig.3 April 2024 Survey Results on Overall Satisfaction (Pioneer Centres, 2024)

Ease of getting into the clinic (disabled access) and clinic facilities.

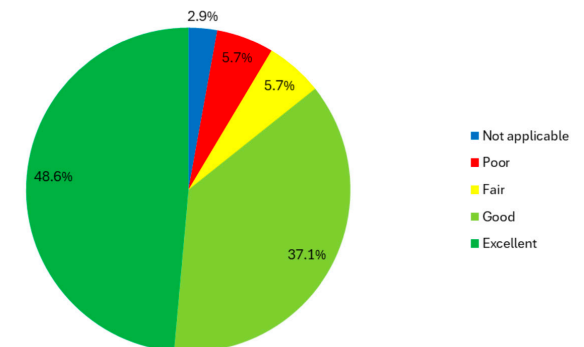


fig.4 April 2024 Survey Results on Accessibility (Pioneer Centres, 2024)

Conditions treated at Pioneer

Chronic Wounds

As mentioned earlier in this report, chronic wounds or ulcers are defined as lesions that persist beyond a 3 month healing period and fail to progress through normal healing care. At the Pioneer Centres, patients who had been treated to heal their wounds unsuccessfully, sometimes after several tries, are referred there to be attended by specialised professionals.

This is a summary of the main types of wounds, their characteristics and common treatment approaches according to Bowers and Franco (2020)

Type of Wounds	Characteristics	Treatment Approaches
Venous Ulcers	The most common type, typically occurring on the lower leg, appears due to poor blood circulation in the veins.	<ul style="list-style-type: none"> • Compression therapy • Regular exercise to activate calf muscles • Elevation of legs above heart level • Compression stockings or wraps
Arterial Ulcers	Usually appear on toes, feet, or lower legs due to poor blood flow to the extremities.	<ul style="list-style-type: none"> • Vascular surgery evaluation • May need a bypass surgery or stents • Limited debridement • Pain management
Diabetic Ulcers	Often found on the feet, particularly under pressure points, and can be surrounded by thickened skin.	<ul style="list-style-type: none"> • Offloading with total contact cast • Blood sugar control • Regular callus removal • Specialized footwear • Hyperbaric oxygen therapy
Pressure Ulcers	Develop over bony areas due to prolonged pressure, commonly seen on the lower back, hips, and heels	<ul style="list-style-type: none"> • Regular repositioning every 2 hours • Special support mattresses or cushions • Nutritional support • Proper skin cleaning and protection • Moisture management

Patient Profile



- Over 60yrs old
- May have an underlying condition:
 - Diabetes
 - Circulation problems
 - Limited mobility

(Bowers & Franco, 2020)

Often experience:

- Constant pain and discomfort
- Reduced ability to move around freely
- Impact on their daily activities and social life due to pain
- Emotional distress due to the long-term nature of their condition

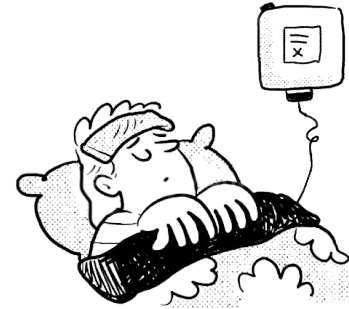
Lymphoedema

The second condition treated at Pioneer is lymphoedema, a chronic condition characterized by swelling in body tissues that usually affects arms or legs, although it can also present in other parts of the body. And while there is no cure for lymphoedema, proper management and lifestyle changes can help control symptoms and prevent complications (Ferrell & Paice, 2019).

This is a summary of care stages and common treatment approaches according to Fu and Deng (2014).

Care Stages	Actions
Initial Assessment	<ul style="list-style-type: none">• Evaluation of swelling• Medical history review• Lifestyle impact assessment• Measurements and photos for tracking progress
Treatment	<ul style="list-style-type: none">• Manual lymphatic drainage• Compression therapy• Exercise programs• Skin care education• Regular monitoring and assessment
Maintenance	<ul style="list-style-type: none">• Self-management training• Ongoing compression garment use• Regular follow-up appointments• Long-term lifestyle modifications

Patient Profile



- More prevalent in women (3:1 ratio)
- Range of ages, but many are older adults
- Many are post-cancer patients and often are breast cancer survivors

(Fu & Deng, 2014)

Often experience:

- Mobility issues due to swelling
- Physical discomfort
- Daily activities and work capabilities impaired
- Challenges with emotional wellbeing and self-image

Service Design in Health Care

Conducting research on existing service design methodologies in healthcare was essential to better address this project and it discovered some important insights that end up shaping the approach taken in this project:

Experience-Based Design

This approach involve end users in the design of the service meant for them and take advantage of their experiences and knowledge to make a more cohesive design.

"Experience-based design offers an alternative to the traditional view of patients and families as passive recipients of care and provides a way to see patients and families as integral to the improvement and innovation process"

– DiGioia & Shapiro, 2017

How this shaped AfterCare:

- Testing with patients initial concepts involving them as active participants rather than just objects of empathy (Ku and Lupton, 2020)
- Having a workshop with the patient advisory group and their families
- Include metrics on patient satisfaction in each one of the milestones in the Future Roadmap
- Develop tools and touchpoints in the designed service that facilitate dialogue between healthcare providers and patients

Impact of "Soft" Details

Being aware that details in a service involving health care are very important and help build confidence and reduce anxiety in patients.

“When it comes to healthcare, attention to detail in every aspect of care is essential. That means the big and little things. If we get the ‘soft’ or ‘little’ things right, patients and families will have confidence that we’ll get the big things right, too”

– DiGioia & Shapiro, 2017

How this shaped AfterCare:

- Being mindful of all touchpoints and seemingly minor interactions
- Considering the emotional impact of service interactions and the overall experience
- Create measurement tools that capture not only technical outcomes but also the experiential aspect

Early Prototyping as a co-design tool

Presenting tangible ideas early on to help users understand and participate in a more involved way in the development of the project.

"Insights gained through observing users and imagining solutions take form as tangible products or processes. Prototypes help us not only to communicate our ideas but also to allow others to experience them and give feedback"

– Ku & Lupton, 2020

How this shaped AfterCare:

- Using prototypes early in the project as a conversation starter on patient's and nurse's needs
- Using low fidelity prototypes to engage people to change, write over or highlight any part of it, in order to participate actively in the design decisions.

Being flexible in the process

A complex system like healthcare needs designers to be able to adapt and be flexible in both methodology and planning.

"The process evolved more organically, and the project team chose applicable methods and next steps based on considerations of the knowledge they acquired during the process and what they needed to know more about in order to proceed. The process was, in this way, adaptive and based on gradually emerging insights."

– Pfannstiel, 2024

How this shaped AfterCare:

- Maintaining flexibility in the design process
- Adapting methods based on the specific needs of the centre and the patients
- Trying to not be too rigid with predefined plans and having backup plans.
- Creating flexible frameworks rather than rigid solutions

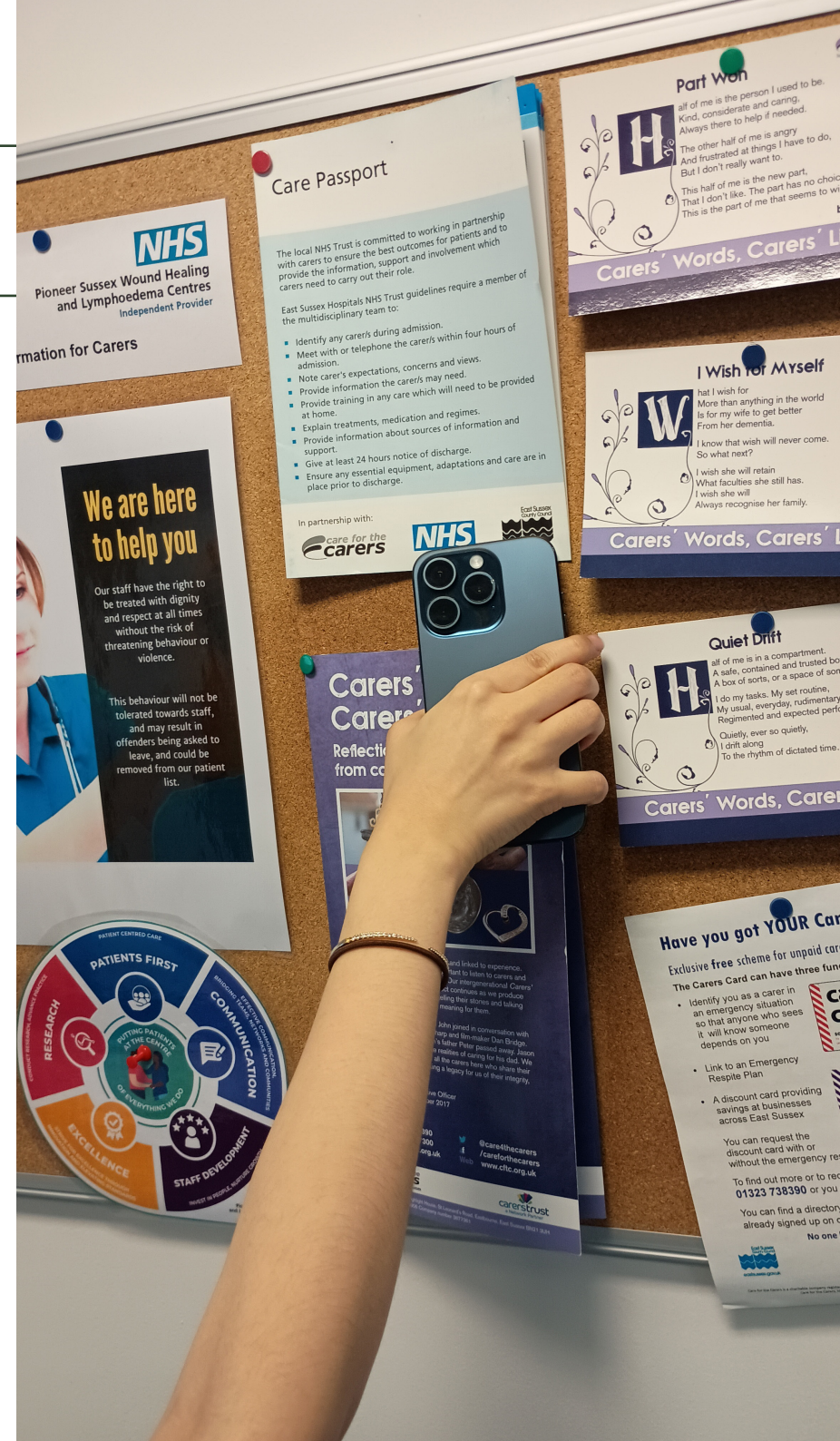
b. Field Research

Initial Visit

After an initial meeting with the Executive Nurse Director Jenni MacDonald, a field visit was arranged to begin the research phase by observing a full day at the Eastbourne Pioneer Centre. This first visit had three objectives: to observe the overall service delivery in action, to engage with staff members through informal conversations and to shadow health care workers during patient care. Stopping over also helped to build a relationship with stakeholders and administrative staff, and get their perspective about the operational challenges and opportunities.

Observations

- The Eastbourne Centre has 2 floors and the Lymphoedema rooms are upstairs, each floor has their own waiting room.
- Nurses do have a close relationship with patients. During the visit a former patient brought cookies for the staff.
- The Centre provide a lot of written material for patient education.
- The scale is located in a public area rather than a closed one.



Shadowing and Interviewing Nurses Takeaways

- Communication issues between clinicians and GPs is an important problem
- There is anxiety and stress among new patients due to long-term suffering
- There is difficulty in delivering information to patients for self care
- Patient adherence to treatment plans at home is a constant struggle

"One major problem is the lack of commitment of patients with their treatment, they think they are cured"

– Lisa, Lymphoedema Nurse

"Hopefully they are reading the leaflets" (They don't know if they are actually useful)

– Sam, Healthcare Worker

"There is only one channel to write to GPs, and there is no way to communicate urgency, so typical status messages like: 'Everything is fine' are no different from messages like: 'Urgent need of antibiotics!'"

– Lisa, Lymphoedema Nurse

Service Workflow Described

During the visit Nurse Laura Russel described the service workflow at Pioneer. This was 1st drafted insite and then polished after.

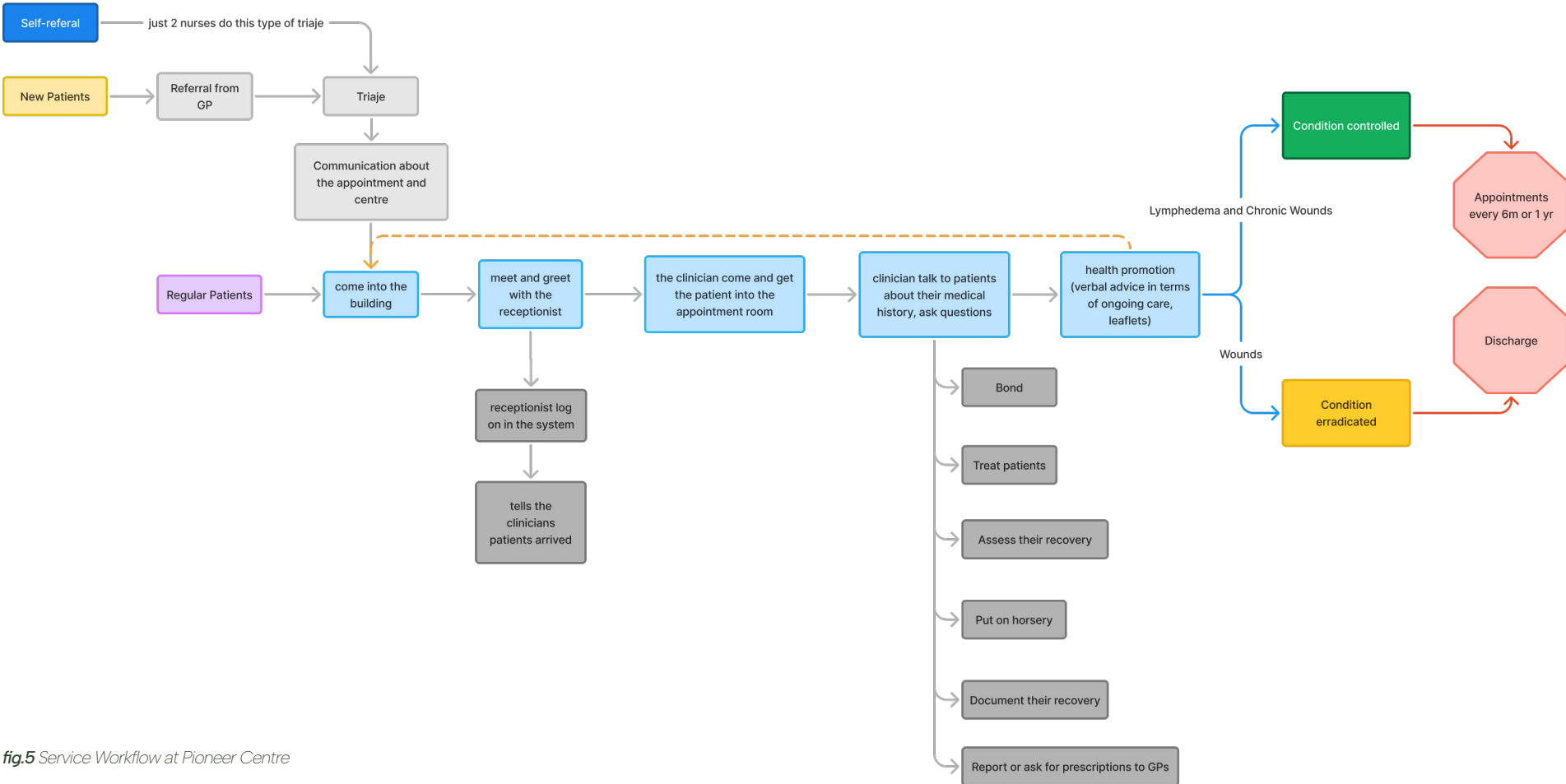


fig.5 Service Workflow at Pioneer Centre

Online Interviews

In order to fill some gaps on the findings from the visit to Eastbourne, online interviews were arranged to talk to Nurse Natasha Huggett, who has a hybrid profile thanks to the experience she gathered from multiple roles including administrative ones, and Healthcare Worker Damien Mahal, who has a more hands-on experience in wound care.

Key takeaways

- Importance in patient education.
- Need of a holistic approach rather than just caring for the specific condition
- Interest in helping patients to care for themselves at home
- Co-creation of a Stakeholder Map

“Patient education is very important, (...) because many of our patients come without knowing what compression is, or have misconceptions, which makes them resistant”

“As it comes to dietary exercise fitness, our patients really need to get the ball rolling and then we can sort of assess them and start to get them in a better health for the wound to heal from the inside rather than the outside”

Stakeholder Map

During the interview with Nurse Natasha Heggett, a co-discovery activity was conducted to map the most important stakeholders of the service. The activity not only helped to get some of the actors of the service and their dependencies, but also help understand which relationships could be strenghten or changed.

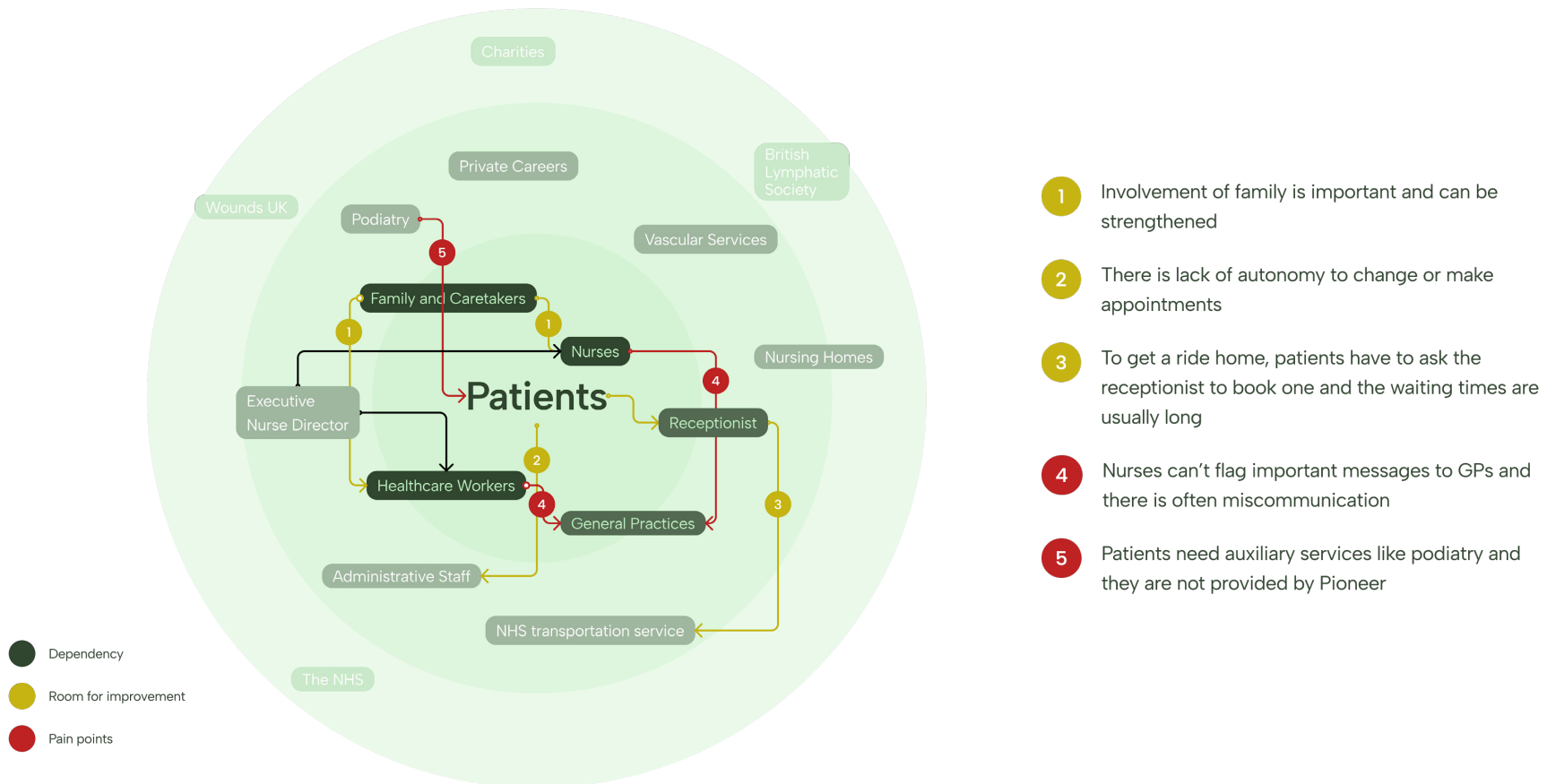


fig.6 Stakeholder Map, dependencies and improvement areas

Patient Advisory Co-discovery

To understand better pain points through the patient's journey, a Co-discovery workshop was set with the Patient Advisory Group. In this workshop patients and caretakers were encouraged to discuss, with the help of visual aids, their complete journey from their 1st appointment to how they imagine they are going to take care of themselves after their treatment.

Key takeaways

- They don't read the leaflets and can't recall the information they are given
- They also struggle with communication with their GP
- They find it difficult to maintain their treatment at home and get other types of care like podiatry

"I don't read the leaflets, The problem with leaflets in hard copy is that they're out of date as soon as they are printed. Web links are much better because you can guarantee that it's up to date."

"We'd suggest a bit more shared care, as now we also have to go to podiatry, two appointments can be one"

Crawley Project

As mentioned earlier, the initial brief from Pioneer Centre focused specifically on front-of-house design recommendations for their new facility in Crawley. This was their primary request and represented what they initially wanted to achieve through this collaboration.

And even though the focus of the final project changed, we made efforts to still address these requirements and a site visit to Crawley was conducted alongside patients to gather firsthand insights about the environment and user needs.

Emma and I treated this project as a medium to build trust with our stakeholders and delivered together concrete design suggestions. This way we used this small project as an opportunity to demonstrate our ability to meet their explicit needs while building credibility. This trust-building exercise proved essential, as it created a foundation of mutual understanding that allowed us to expand the conversation beyond the physical space into the more transformative territory of AfterCare and Navigator (Emma's Final Major Project).

After analysing the findings from this visit and extrapolating other feedback about the environment from the Eastbourne site we presented a blog post for them to publish on their website and a detailed report with design suggestions.

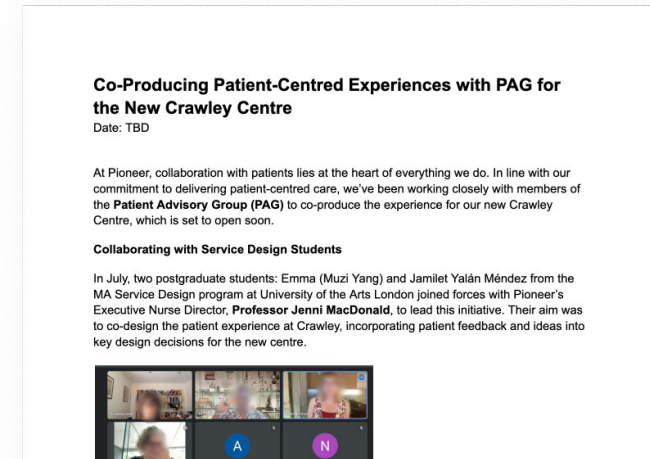


fig.7 Screenshot of the blog post draft

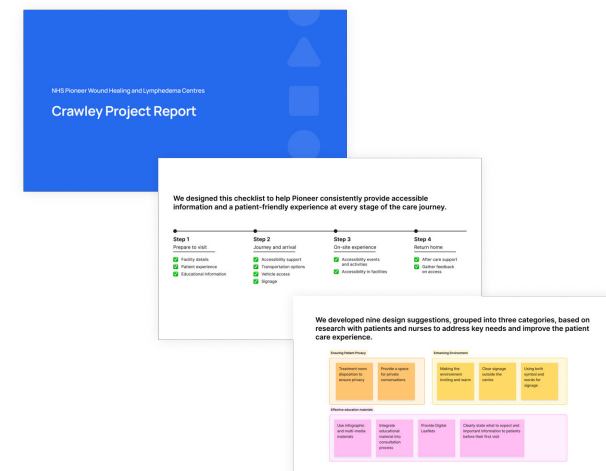


fig.8 Design Suggestions Report

Reframing

a.

Problem Scope

Main Findings

1

Patients struggle to understand and adhere to their full treatment plans

2

Managing the emotional and psychological aspects of their condition is just as important as managing their physical conditions

3

Effective communication across all the actors in the service is a main concern and can make a real difference in patient care

4

Regular follow-up appointments are essential for adjusting treatment plans but after some time, patients get appointments farther from each other and there is less support if they need it.

Finding Opportunities

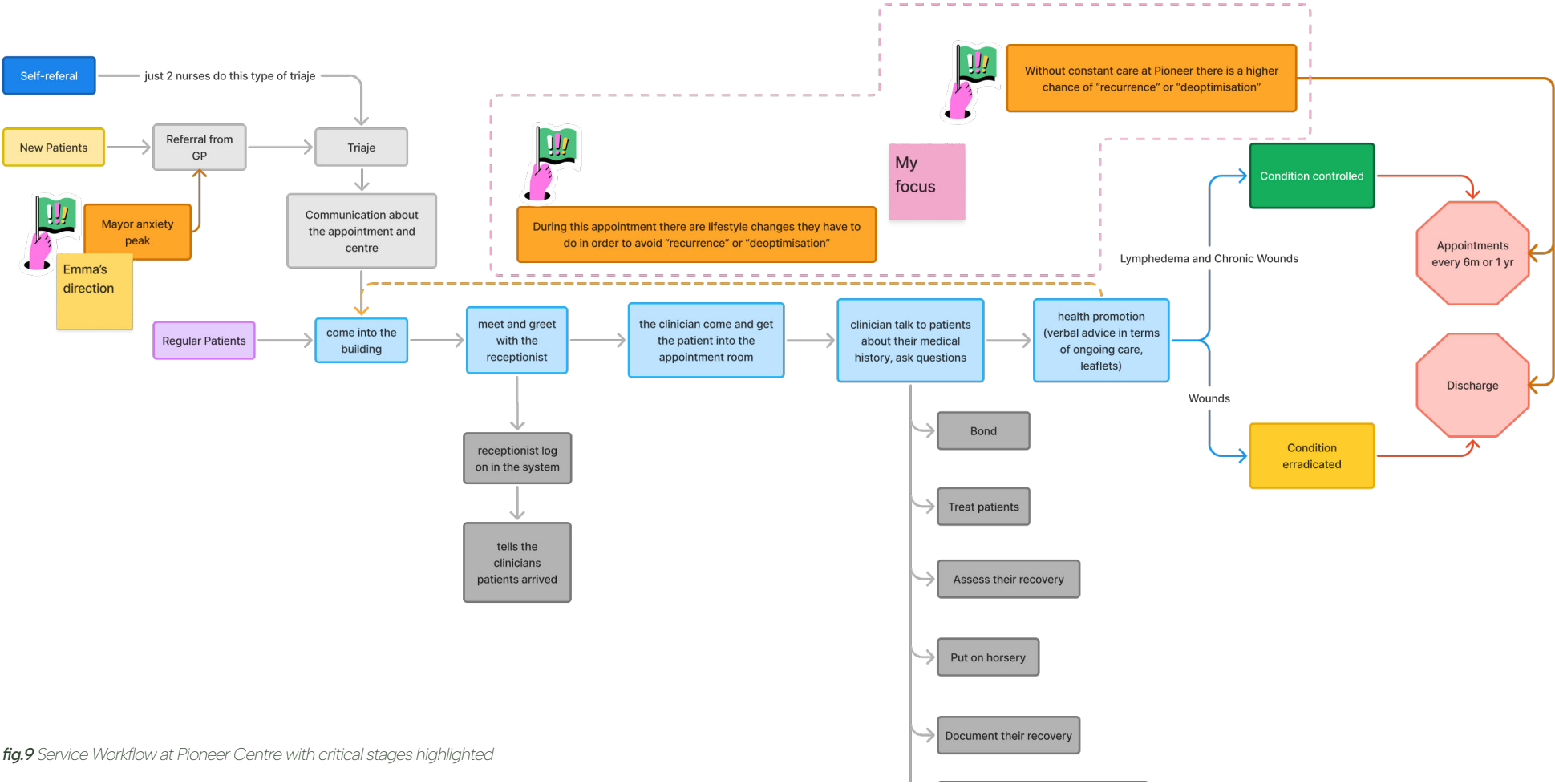


fig.9 Service Workflow at Pioneer Centre with critical stages highlighted

How might we provide support for patients after they got treated so they can keep engaged in their care and avoid future recurrence or deoptimize the state of their condition?

b.

Design Approaches



Holistic Care Approach

- Designing a service that provides a holistic treatment including diet, fitness, and skincare.
- Encouraging and facilitating patients to persist with their treatment plans and live style changes.
- Offering ongoing support and follow-up to ensure adherence.
- Integrating psychosocial support for patients and relatives.



Anticipatory Innovation

- Co-creating and facilitating nurses to envision a preferable future for lymphedema and wound care services.
- Developing practical action plans, milestones and metrics to achieve this vision.
- Engaging stakeholders in future planning and innovation to enhance their operational expertise with strategic thinking

Creating

a. Early Prototypes

Nurse Testing and Co-design

Digital Platform

To start ideating with nurses, storyboards as prototypes were used to help visualise how a digital platform could help healthcare workers educate and open a conversation with patients. This approach was very effective as a conversation starter and sparked an interesting discussion about patient autonomy and digital tools.

Their feedback highlighted both the clinical benefits of maintaining closer contact with patients and the potential for increased patient engagement in their own care journey.

“This can give patients ownership over their own treatment”

“This could be a place where they can manage all about their appointments”

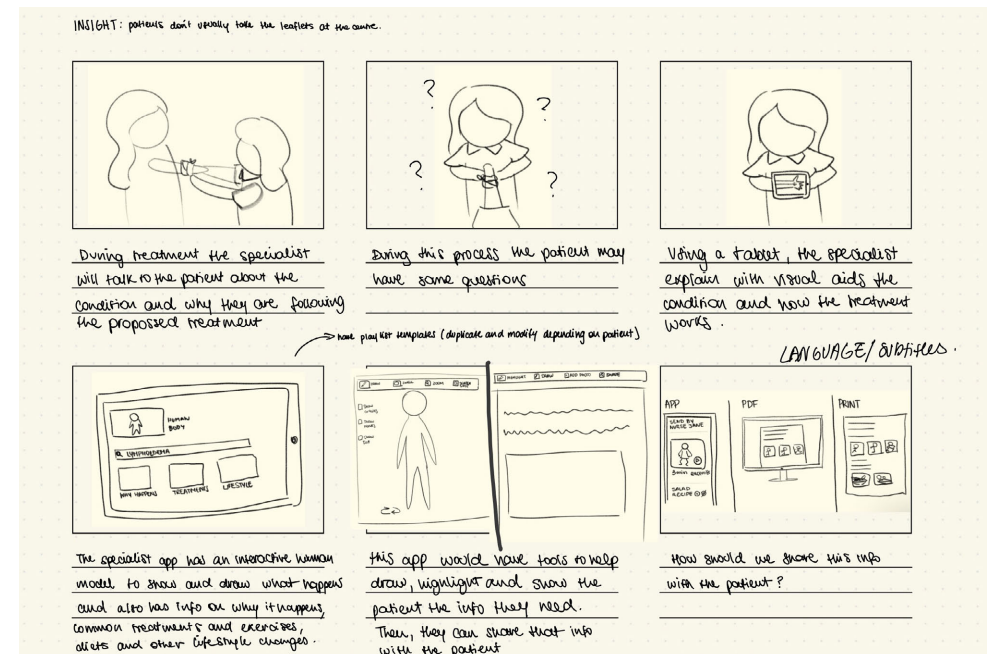


fig.10 Storyboard illustrating a digital platform that helps nurses educate patients and opens the communication channels.

“Patients could have a weight tracker to keep them motivated”

In person educational events

A second storyboard prototype was shown to nurses to explore with them the concept of in person community learning events, where patients could meet to share experiences and learn key aspects of ongoing care including nutrition workshops, skincare suggestions, and guided exercise classes designed for lymphoedema and wound care patients.

“It would be great for lonely patients”

“How would the business model work?”

“Do we know the frequency patients would be attending?”

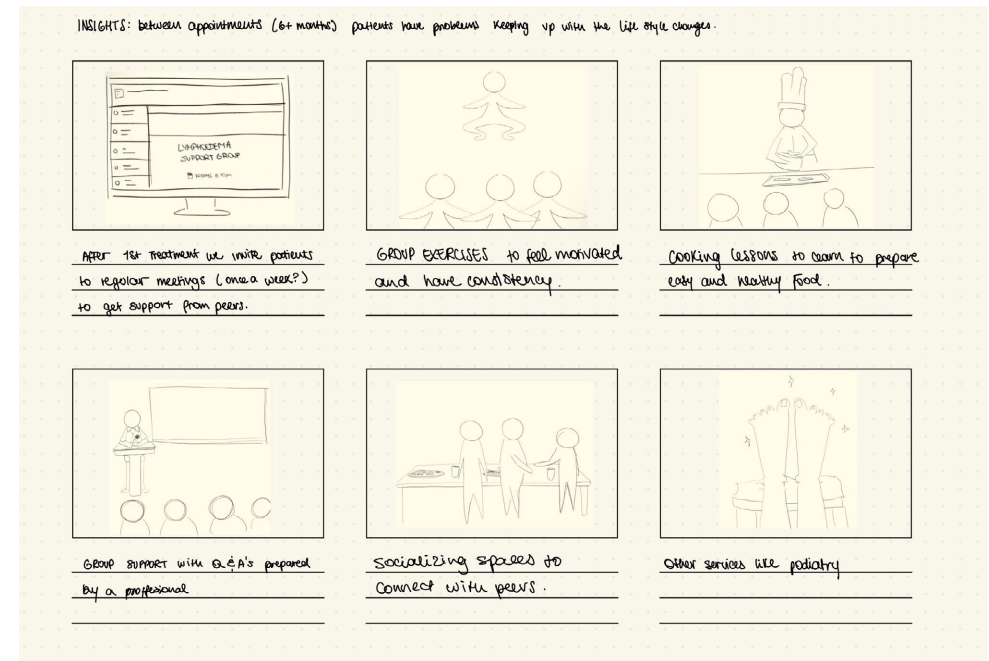


fig.11 Storyboard illustrating a series of patient educational meetings and in person services.

Prototyping with Patients

Card Sorting

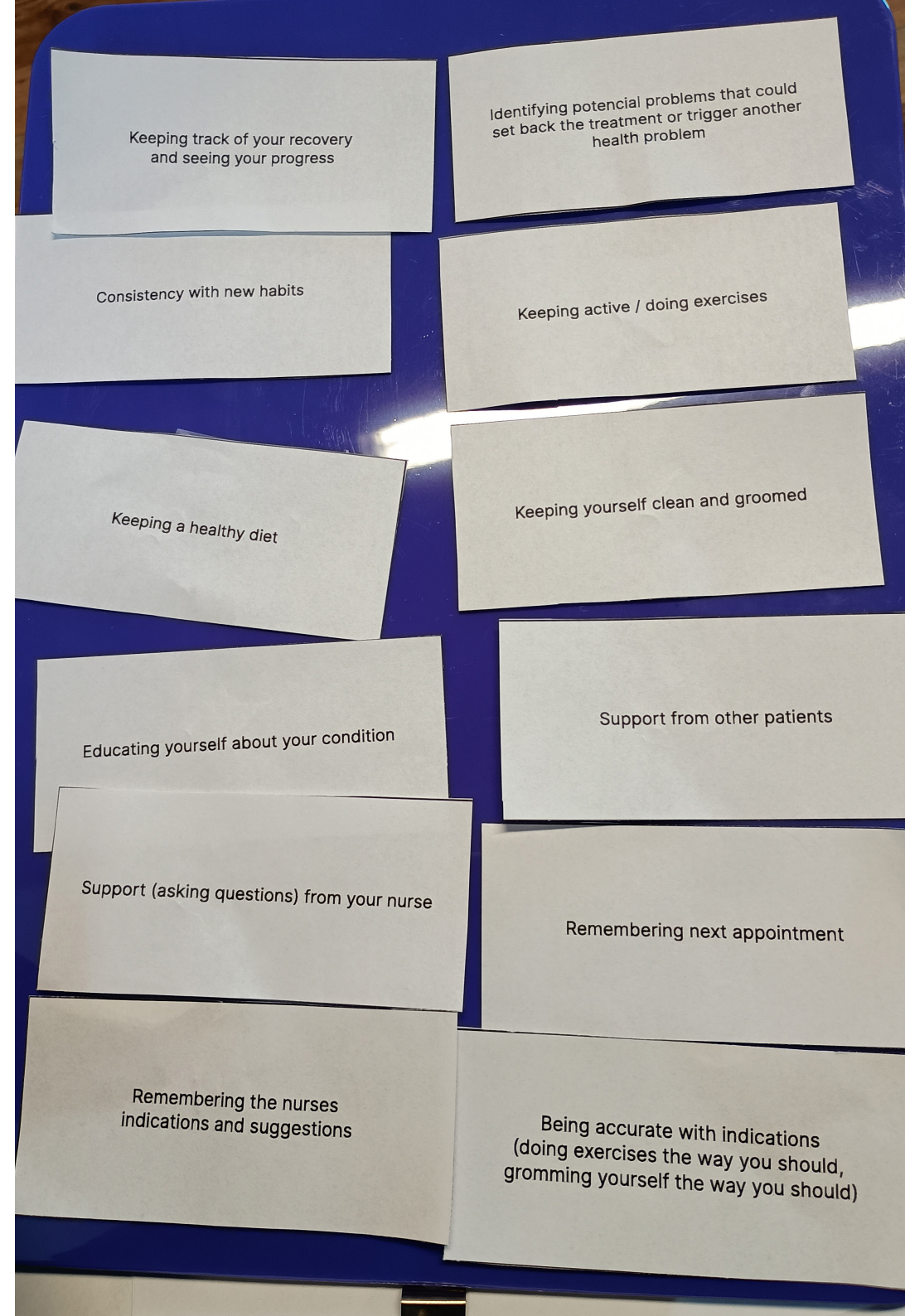
To understand the patient's priorities, patients were asked to order a series of possible worries they might have from the most pressing one to the least important one.

Possible worries to sort

- Keeping a healthy diet
- Keeping active / doing exercises
- Getting support from other patients
- Identifying potential problems that could set back the treatment or trigger another health problem
- Educating yourself about your condition
- Keeping track of your recovery and seeing your progress
- Getting support (asking questions) from your nurse
- Remembering the nurses indications and suggestions
- Keep consistency with new habits
- Remembering next appointment

Sorting result

1. Keeping a healthy diet
2. Keeping track of your recovery and seeing your progress
3. Identify potential problems before their next appointment
4. Getting support (asking questions) from your nurse



Patient's App

The patients were presented with an app paper prototype to use as a conversation starter on digital access, smartphone usage and expectations on a possible digital platform.

Key Takeaways

- Most of patients, even elderly ones, have and know how to use a smartphone
- Most of them know how to use the NHS app
- They are interested in particular in learning about healthy recipes
- They think that information should be delivered using videos

“I would be interested in learning some cooking recipes”

“I imagine there are going to be videos there”

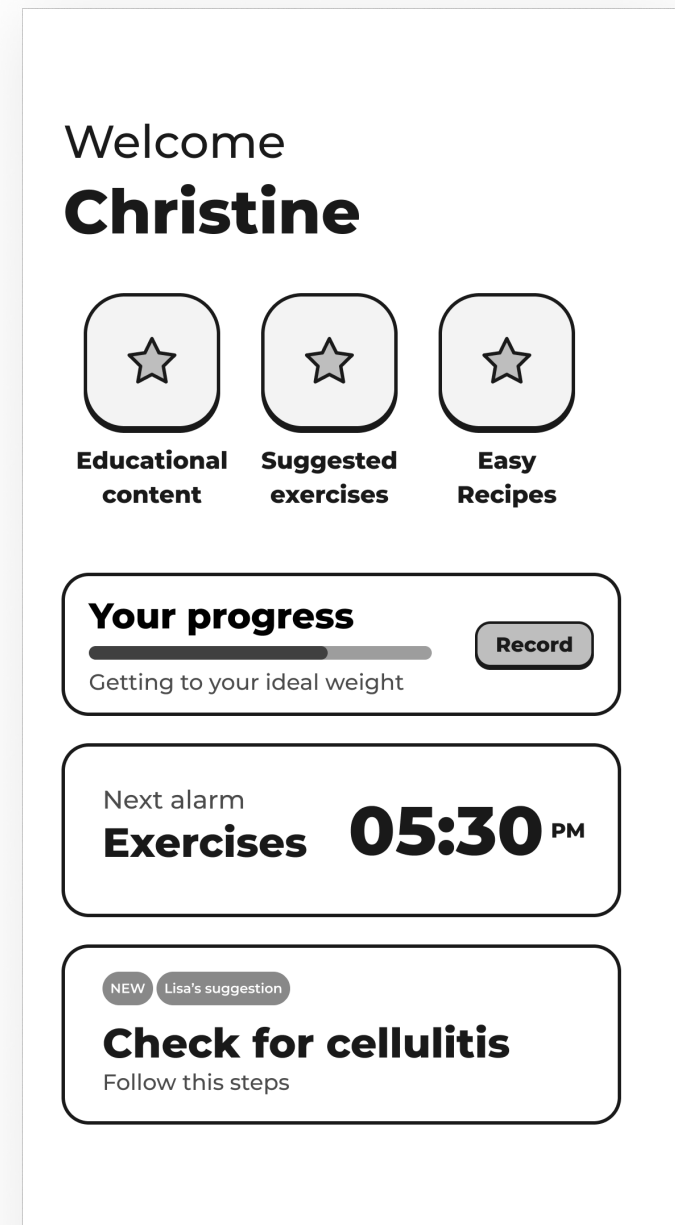


fig.12 Paper prototype of an app for patients

In person educational events


After presenting a storyboard on this idea to nurses, a lot of their comments were actually questions. This leaflet was used to illustrate to patients this concept to gather feedback and answer some of the questions raised.

Key Takeaways

- Patients are more interested in having a digital tool rather than an in person event
- They are willing to pay if there is a podiatry service
- Events shown in the leaflet are too targeted

“I wouldn’t want to go more than once a month”

“This could be recorded and available at the app”



Patient support group gatherings

Keep up with exercises, diet and other health care activities

Every Thursday at 5pm

Agenda changes every week, this month:

September 5th	Diabetic friendly exercises
September 12th	Podiatry visit
September 19th	Easy and healthy recipes
September 26th	5min a day exercises

NHS
Pioneer Wound Healing and Lymphoedema Centres
Independent Provider

fig.13 Leaflet for a fictitious series of in person events

b. Future Roadmap

Why?

After the initial conversation about a digital platform with nurses, they started to inquire about an old project that was launched to deliver a digital platform to patients. After asking around they found out that it was deprioritized.

They were really invested in this idea but there was a lack of strategic thinking in favour of an operational mindset and short term solutions. That's how the idea of delivering future roadmap was formed.

The idea is to not only giving them a ready to implement 10yr future plan but also to change their mindset by participating actively and keeping and using this tool for future projects.

Inspiration

This framework is a combination of ARUP's 1-3-10-30 (Roberts Cole, 2023) and Dr. Silvia Grimaldi's Roadmap for Change (Grimaldi Silvia et al., 2023). Mixing backcasting and strategic planning into one framework.

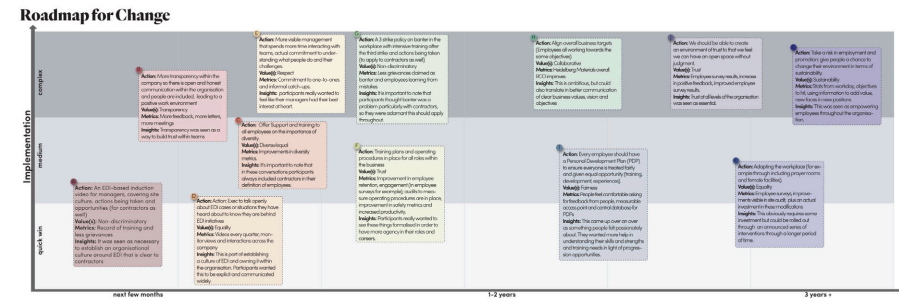


fig.14 Roadmap for Change (Grimaldi Silvia et al., 2023)

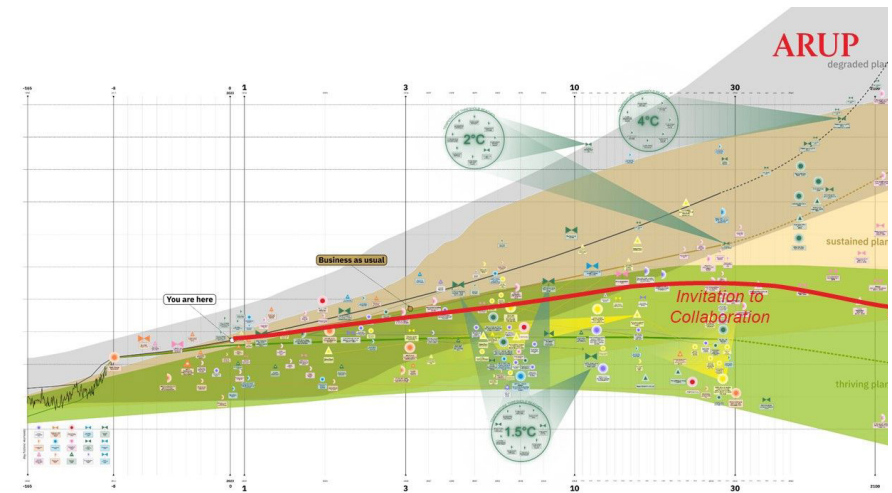


fig.15 1-3-10-30 Framework (Roberts Cole, 2023)

Day of the Workshop

Professor Jenni MacDonald, Nurse Director Siobhan Mccoulough and David Gray were invited to participate in the workshop. And even though they initially didn't understand that they were going to actively participate in the process rather than just give feedback (and one of them even got frustrated and left the meeting), the end goal and results were achieved.

In retrospective, this workshop would be better received in these kind of contexts with more background information and a clearer communication of the specific activities that were going to be performed.

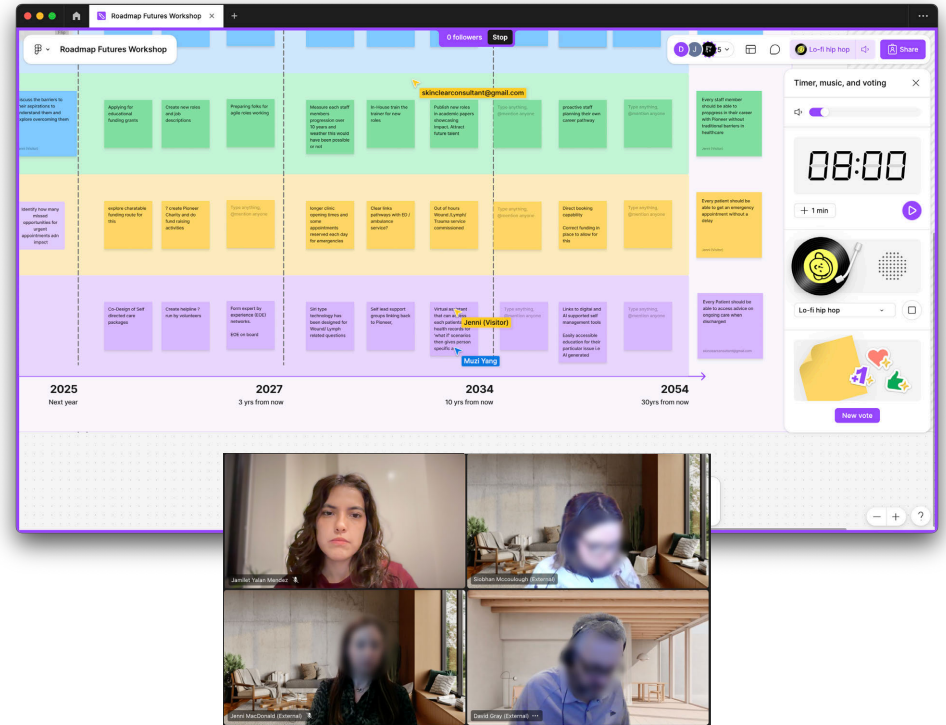


fig.17 Online Future Roadmap Workshop

The screenshot shows a Google Sheet titled 'Co-Design Workshop with Pioneer'. The sheet contains a table with the following columns: Time, Duration (min), Activity, Description, Outcome, Resources, and Actions. The table is organized into several rows, each representing a different activity in the workshop.

Time	Duration (min)	Activity	Description	Outcome	Resources	Actions
2	5	Waiting	Wait for people to get into the meeting	Have almost all attendants there	Background music Meet link	
3	5	Context	Why are we here	Understanding of what to expect in the session, why it is being conducted.	Presentation with agenda	
4	15	Design Principles	What's a design principle Why is this important Examples	Understanding what is a design principle to be able to propose a few	Presentation about design principles	Make presentation
5	10	Brainstorm principles	All people ideate principles	Co-create design principles	Figma post-its	Make figam
6	5	Voting	Vote for the principles we want to guide our roadmap	Get 3 or 4 main design principles	Figma stickers	
7	15	Set ideas into timeline	Add ideas into the future and set actions depending on the complexity and when are we planning to implement them. Use the highest level ideas to think what should we do to make them possible	Get the ideas into timeframes and complexity to have a roadmap to make them possible	Figma framework	Make the framework
8	5	Closing	Thanking them for their time and letting them know Im going to e-mail the final version.	Having them onboard with the roadmap we created	Mail	
9	60					
10	1.5hrs					

fig.16 Workshop planning

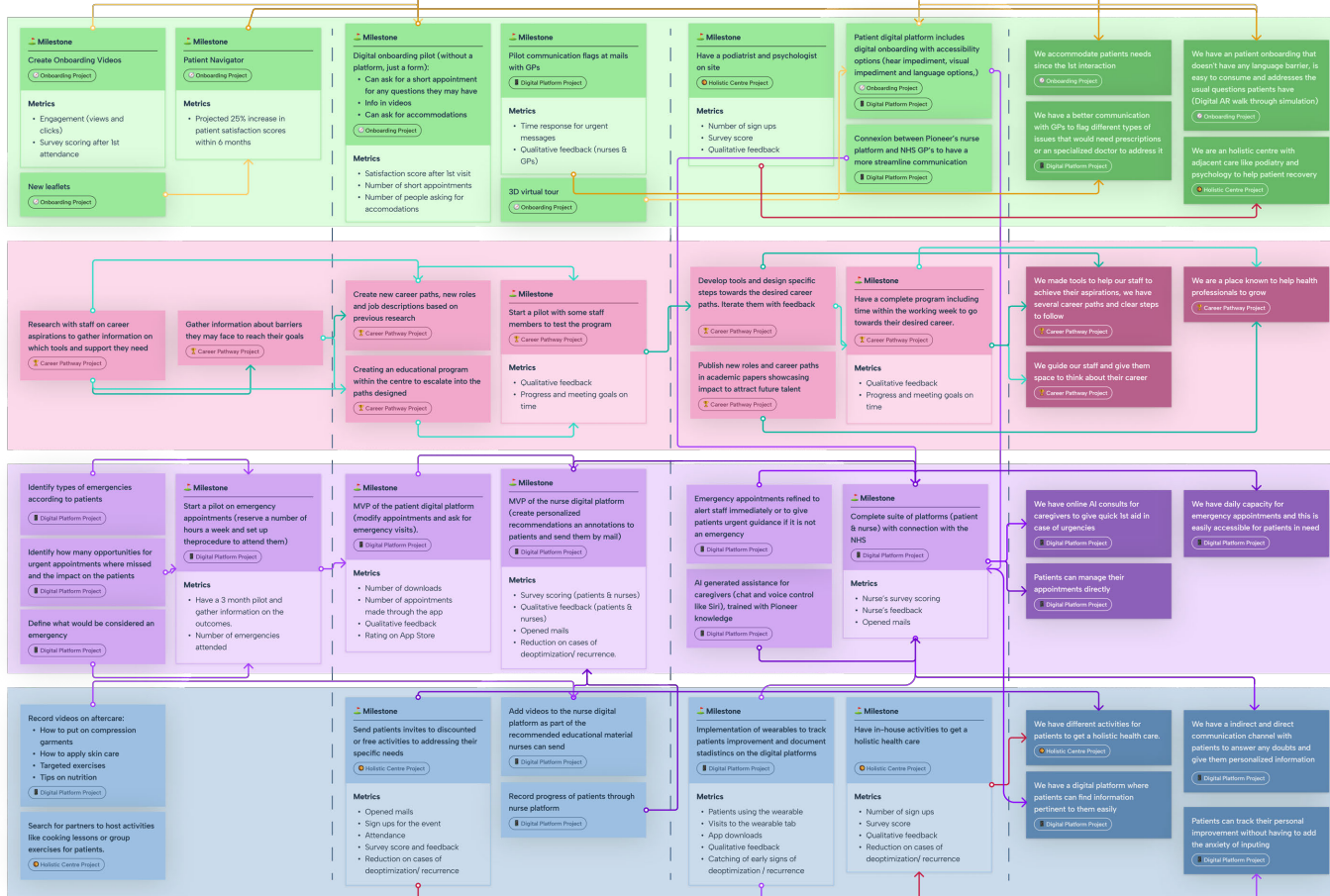
Catalysing

a. Future Roadmap

By Principles

Vision

Pioneer Co-designed principles



We will prioritise the patients' treatment as well as their physical and mental wellbeing over our adherence to processes.

Every staff member should be able to progress in their career with Pioneer without traditional barriers in the healthcare sector.

Every patient should be able to access to an appointment without having to accommodate around our us, specially if its an emergency.

Every patient should be able to access advice and relevant education in every stage of their care to be fully involved in their own care and reduce their anxiety.



2025 Next year 2027 3 yrs from now 2031 7 yrs from now 2034 10yrs from now

By Projects

Every patient should be able to access to an appointment without having to accommodate around our, specially if its an emergency.

Every staff member should be able to progress in their career with Pioneer without traditional barriers in the healthcare sector.

Every patient should be able to access advice and relevant education in every stage of their care to be fully involved in their care and reduce their anxiety.

We will prioritise the patients' treatment as well as their physical and mental wellbeing over our adherence to processes.



Vision

Projects

Onboarding Project

Career Pathway Project

Digital Platform Project

Holistic Centre Project



Workshop Template

1 Agenda

- Communicate the overall goal of the workshop
- Disclose the activities and time for each of them

Meeting goals
5 min

- Establish Design Principles
- Planning implementation based on the principles
- Create a roadmap

Agenda

Time	Activity
1:00	Agenda
1:10	Design Principles
1:20	Principles to be applied
1:30	Principles application
1:40	Principles
1:50	Principles to be applied
2:00	Principles application
2:10	Principles
2:20	Principles to be applied
2:30	Principles application
2:40	Principles
2:50	Principles to be applied
3:00	Principles application
3:10	Principles
3:20	Principles to be applied
3:30	Principles application
3:40	Principles
3:50	Principles to be applied
4:00	Principles application
4:10	Principles
4:20	Principles to be applied
4:30	Principles application
4:40	Principles
4:50	Principles to be applied
5:00	Principles application

Sandbox

2 Sandbox

- Space to quickly learn how to use the tool for the workshop, in this case Figma

3 Understanding Design Principles

A 5 min crash course on design principles

- What are they
- A real life example of how they are used to make design decisions
- Characteristics and good and bad examples for each one

Understanding Design Principles
5 min

What is it?

Call all the repeatable (and sometimes fundamental) practices that have guided real-world practice for centuries (if that, do no harm's), design principles provide enduring guidance for how we work and should be followed. They are the 2-3 compound that guides all decisions and actions toward your most important goals.

NHS Reducing violence and aggression

A good rule: Every patient and service user should be able to know when going to happen next at the emergency room without having to wait for 30-60 minutes!

This principle could result in decisions like:

- Information placed in visible places at the emergency room
- Personnel location they can take
- Markers with different meanings based on type of injuries

And has measurable results in aggression reduction.

Characteristics

- It's Actionable:** Can we make decisions based on this?
 - "Make every wall line production for patients"
 - "Provide good patient care"
- It's Specific:** Does it address an specific need we have?
 - "Double computers to make informed decisions within one conversation"
 - "Empower communication"
- It's Memorable:** Can people easily remember and share it?
 - "Have this, double computer"
 - "Provide support care when medically appropriate and logistically feasible"
- It's Obvious:** Is it specific to our context?
 - "Change the layout of our patient"
 - "Provide high-quality care"

Principle Ideation
20 min

What is it?

Generate ideas for design principles that will guide your work. This is done by using repeatable (and sometimes fundamental) practices that have guided real-world practice for centuries (if that, do no harm's), design principles provide enduring guidance for how we work and should be followed. They are the 2-3 compound that guides all decisions and actions toward your most important goals.

Characteristics

- It's Actionable:** Can we make decisions based on this?
 - "Make every wall line production for patients"
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 - "Have this, double computer"
 - "Provide support care when medically appropriate and logistically feasible"
- It's Obvious:** Is it specific to our context?
 - "Change the layout of our patient"
 - "Provide high-quality care"

Name your ideas

Every [what/who] should be able to [action]

We will prioritize [what] over [competing priority] when [situation]

3 min per idea

4 Principle ideation

To achieve a vision, participants are asked to create principles

- They are provided with user quotes from nurses and patients
- To help them there are also some templates of how to write design principles they can follow
- Later they will have 4 votes to get the best 4 principles to work with

4 Future Roadmap

Using principles as a compass, the activity starts by imagining how would 2034 Pioneer Centre will look like if we achieve what our principles dictate

- There are some ideation prompts they can use to help them imagine this future
- After finishing their vision for 2034 then we start planning each step and goals for each period of time, trying to get to that goal

Future Roadmap
20 min

Organize ideas into a timeline for implementation.

1. How should we start during next year to achieve our goals?

2. Which other activities have medium complexity and can be addressed next?

3. How do I think about long term projects we want to address that are more complex?

4. Which things we think that goal, how would it look like?

2025 Next year

2027 3 yrs from now

2030 7 yrs from now

2034 10 yrs from now

Closing Remarks
2 min

Key takeaways and next steps.

MY TASKS

- Complete the action items from the roadmap (new projects or services, improvements, new sites, etc.)
- Set up another steps in between
- Get in touch for collaboration
- Send mail with the new roadmap changes
- Create a new Figma and open it for 2 days to get asynchronous feedback
- Send their mail steps on destination

WHAT I ASK FROM YOU

- After sending the revised roadmap please give me feedback of Figma (using comments or post-its)

4 Principle ideation

To achieve a vision, participants are asked to create principles

- They are provided with user quotes from nurses and patients
- To help them there are also some templates of how to write design principles they can follow
- Later they will have 4 votes to get the best 4 principles to work with



Ideation Cards

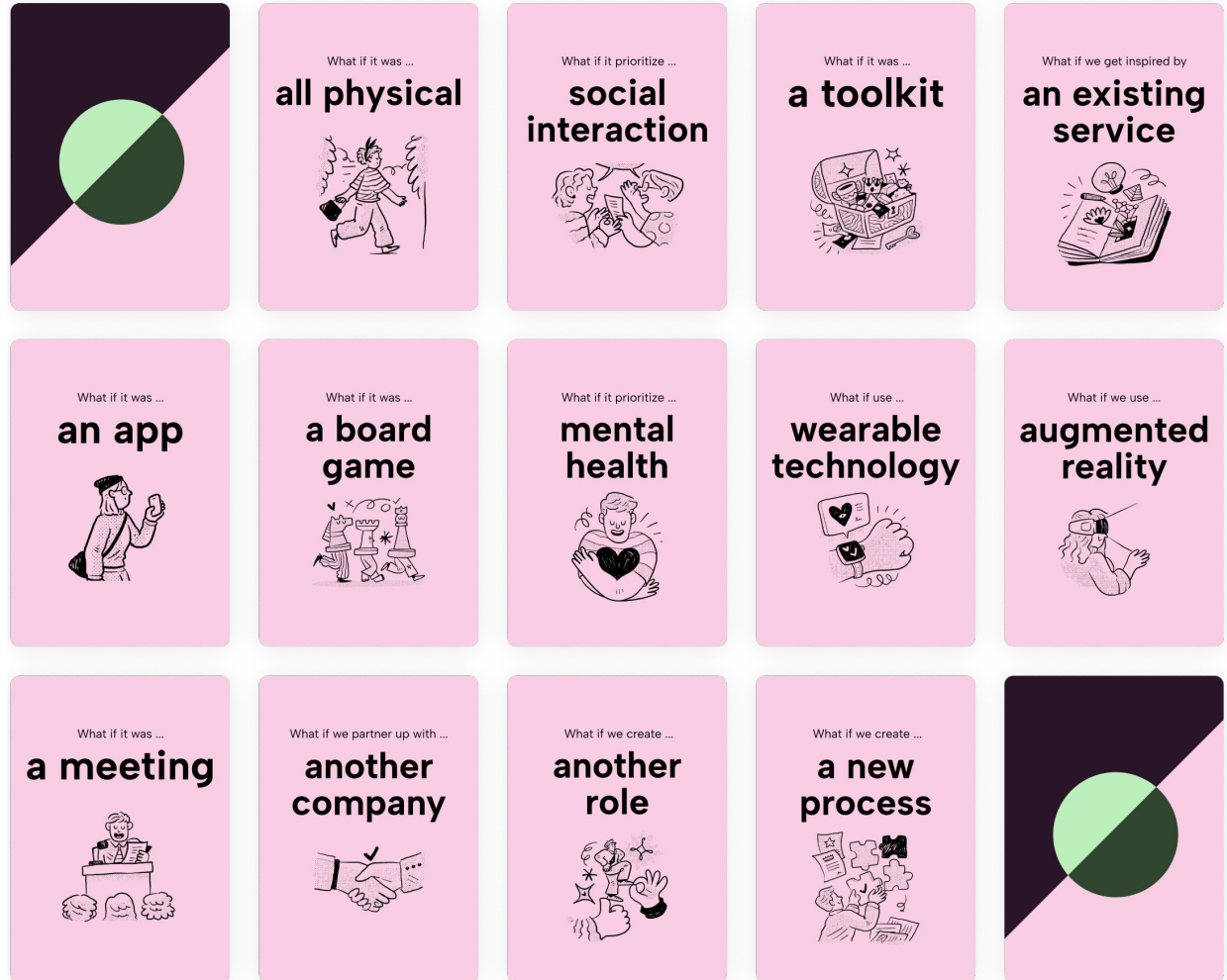
Why?

The Pioneer Centre staff were very focused on easy quick solutions when they were engaged in co-creation, so it was decided to use "What if?" cards to enhance the ideation process and spark creative thinking.

These prompts encouraged nurses and stakeholders to explore more possibilities: "What if the whole process was physical?" or "What if the solution prioritized mental health?"

During the future roadmap workshop, these cards were digitally drawn with the help of a Figjam plugin, to gently push participants outside their comfort zones and help them envision a preferable future for the Pioneer Centre in 2034 without the usual constraints of current systems and resources.

These cards served as creative catalysts, transforming discussions from "what can be done now" to "what could be achieved in the future."



b. Digital Platform

Patient's App

Key Features

- Educational videos and articles curated and shared by nurses
- Reminders and notifications to take care of themselves
- Managing their appointments
- Ask for emergency appointments
- Chat with their nurse
- Following their progress



Home

- 1st component displays recently shared (by your health worker) educational material.
- 2nd one are reminders with information of their last visit's wight, limb size, etc.

Resources

- 1st component displays recently shared (by your health worker) educational material.
- 2nd one are resources categories
- 3rd are suggestions based on behaviour

Shared with you

- Search bar
- Filters by categories
- Results

Resources

- 1st component displays recently shared (by your health worker) educational material.
- 2nd one are resources categories
- 3rd are suggestions based on behaviour

Consult

- Next consults
- Filter to see all Scheduled and Past Consults
- Health workers can add notes to consults
- Booking an emergency consult

Inside a consult

- Chat about the notes leaved there
- Edit consult
- Booking NHS transportation

Emergency consult

- What is an emergency
- What symptoms could be life threatening and should be handled by 999
- Confirm booking

Health Data

- Information recorded by health workers or yourself
- Set goal
- Information history

Nurse's Platform

Key Features

- Share educational information with patients
- Create “playlists” or “care collections” of educational content
- Send reminders and notes to patients
- Chat with patients
- Follow and update patient’s health data improvements
- Sketch and add 3d anatomy models to explain medical concepts to patients



Home

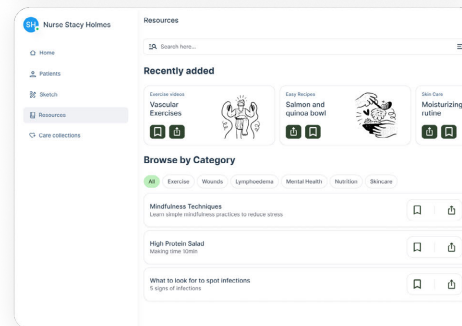
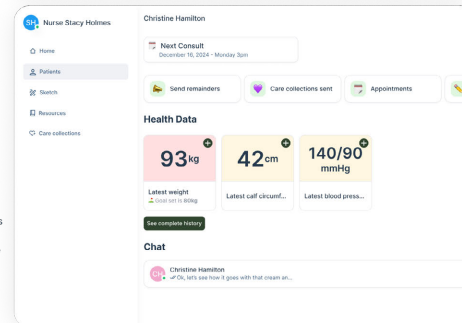
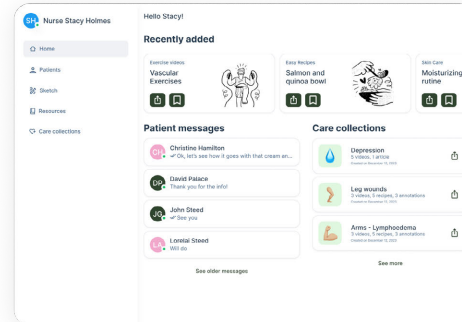
- 1st component displays recently added resources by the Pioneer Centre or NHS, they can share individually that resource or add it to a “Care Collection”
- 2nd one are recent patient messages
- 3rd are recently shared “Care Collections”

Inside a Patient Name

- 1st component displays when are they going to meet next
- 2nd one are buttons to send reminders, see care collections shared with them, past appointments, and sketches they might have drawn for them.
- 3rd is health data they have on the patient and a button to see their complete history (could be inside this platform or open another platform)
- 4th are the recent messages with the patient

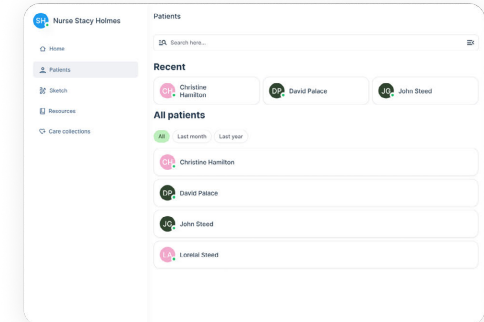
Resources

- Search bar
- 1st component displays recently added resources by the Pioneer Centre or NHS, they can share individually that resource or add it to a “Care Collection”
- 2nd one is a Browse by category section



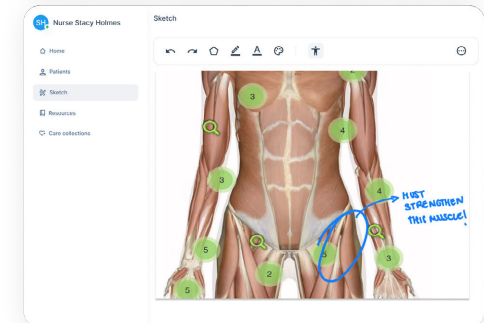
Patients

- Search bar
- 1st component displays recently contacted patients
- 2nd one let you filter all patients by last month or year



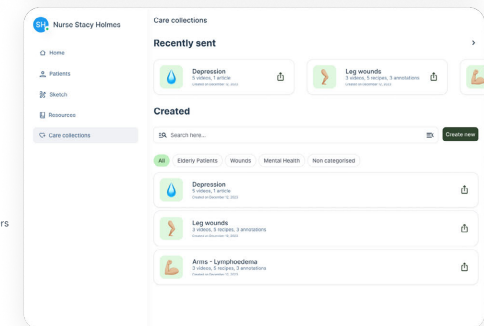
Sketch

- A drawing interface to explain patients and educate them in their specific condition
- A 3D feature to look for a specific human part and sketch on top of it
- Health workers can share this drawings with patients



Care collections

- 1st component displays recently shared educational material with a share button to easily reshare
- In the 2nd one you can search or create a new “Care collection” to have pre curated educational information for specific types of patients or conditions health workers had encountered.



c.

Retrospective

When I first started working with Pioneer I was really impressed by the close relationship they have with their patients as well as an awesome success rate. This actually made me reflect a lot on my journey here. I chose to study in the UK because I wanted to work in public services, and I saw how the UK had reached a level of design maturity in their public services that simply doesn't exist in Peru yet. Coming from a context where we face so many challenges, from basic inefficiencies to healthcare worker desensitization, I was impressed by the Pioneer Centre and how they were delivering such great service within NHS guidelines without massive financial investment.

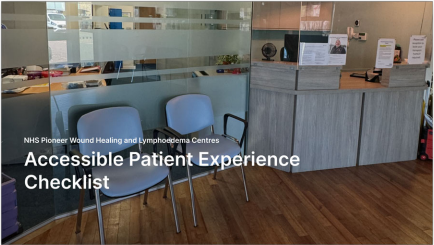
Because of how well they were already doing, it was actually pretty tough to pick a direction for my project at first. But then I started thinking – okay, this place is doing great work, but what happens when patients are no longer here? What about their continued care journey? That's when I found my focus. As I started co-creating with the healthcare professionals, I noticed something interesting about their mindset. Because they deal with strict timelines and emergencies every day, they tend to operate in a reactive and operational mode, focusing on immediate needs rather than long-term planning. This observation led me to develop not just immediate solutions, but also tools to help them visualize and roadmap their future goals.

The process wasn't without its challenges though. During the Future Roadmap Workshop, even though I had sent an email explaining the objectives of the meeting, there was some resistance. David, one of the stakeholders, wasn't really interested in creating or contributing because he thought he was only meant to give feedback and he ended up leaving the meeting to walk his dogs. It was definitely a learning moment about managing unexpected workshop situations, and it made me think hard about how this could have been prevented. Looking back, I realize that it's really difficult to plan ahead when you're not familiar with all the participants, but it taught me the importance of crystal-clear communication about workshop activities – something I'll definitely incorporate religiously into my future practice.

I'm really grateful for the opportunity to work with the NHS through this project. I believe this experience and hopefully working in UK public services after finishing my MA, will give me the practical knowledge and insights I need to eventually go back to Peru and make a meaningful difference there. While the contexts are different, the principles and approaches I've learned here will be invaluable for driving positive change in Peru's healthcare system.

Appendices

Crawley Project Report



We designed this checklist to help Pioneer consistently provide accessible information and a patient-friendly experience at every stage of the care journey.

Step 1	Step 2	Step 3	Step 4
Prepare to visit Facility details Patient experience Educational information	Journey and arrival Accessibility support Transportation options Vehicle access Signage	On-site experience Accessibility events and activities Accessibility in facilities	Return home After care support Further feedback on access

Step 1 Prepare to visit

Many patients rely on digital devices to check if a site is welcoming, safe and accessible. On-site information should include details about accessibility in relation to:

- Facility details:** Contact channel and contact numbers, Opening times and prices, Location and access information for cars, wheelchair and other facilities.
- Educational information:** Information to gather fears and other emotional activities and worries, Promote educational information.

Accessibility: Pre-visit information should be available or request in alternative formats such as: Audio, Braille.

Feedback design should be:

- In large font print
- Using plain language

Step 2 Journey and arrival

The more checks people have to sign to reach the centre, the more accessible it will be. Things that may be improved include:

- Accessibility support:** Wheelchairs available, provide seat, Staff and volunteers trained in quality awareness, Staff and volunteers with users skills such as sign language, Free entry to essential support workers, carers and companions, Access staff available to provide support.
- Transportation options:** Clearing one bus, leaving at least 15 minutes, Drop off and pick up, leaving 15 minutes before arrival, Clear signage, Welcoming entrance with helpful information.
- Vehicle access:** On large sites, consider allowing car access to parts of the site, Enough parking spaces, Accessible car parking spaces.

Step 3 On-site experience

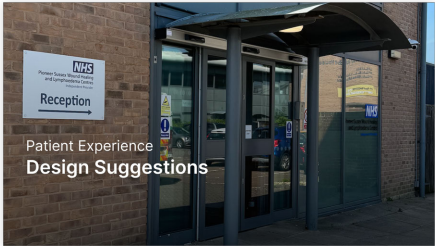
Access improvements fall into these categories:

- Accessibility in events and activities:** Events and activities are designed to include disabled people, Information and interpretation is designed to include people with disabilities, Highlights are accessible and experiences of equal quality are created.
- Accessibility in facilities:** Facilities such as toilets, waiting rooms and treatment rooms are made accessible, Routes and signposting improvements, Staff and volunteers have disability awareness training.

Step 4 Return home

It is easy to overlook this final step, but problems at this stage can cause an immense quality risk. Things that can improve the patient experience:

- Aftercare support:** Provide information about how to take care at home, Providing information that encourages people to become involved in Patient Advisory Group.
- Survey feedback on access:** Measure whether access improvements have worked, and ask patients' ideas for further improvement, Making it easy for people to give feedback on their experiences.



We developed nine design suggestions, grouped into three categories, based on research with patients and nurses to address key needs and improve the patient care experience.

- Resolving Patient Privacy:** Treatment rooms designed to ensure privacy, Provide a space for private consultations.
- Enhancing Environment:** Making the environment inviting and warm, Clear signage outside the centre, Using both symbol and words for signage.
- Effective educational materials:** Use infographic and fact media materials, Integrate educational material into consultation process, Provide Digital Leaflets, Clearly state what to expect and request information to patients before next visit call.

On-site experience Enhancing environment

Making the environment inviting and warm

- Applying colour accents to make the space less cold
- Using warm materials like wood
- Using indirect warm light instead of only white ceiling lights
- Having artwork and plants

Related Quotes:

"There could be some artwork on the wall, making it not white, and make an artistic writing to ease the anxiety." (Dore Patient in Crawley)

On-site experience Enhancing environment

Clear signage outside the centre

- Making a visible signage so patients can easily view from the road where is the centre located.

Related Quotes:

"I think also having a relatively big sign outside the centre." (Lenny - Nursem)

"It is quite difficult for people to find the centre, signs that direct it that on the occasions they don't know where it is." (William patients and Barbara (nurse) Eastbourne)

On-site experience Enhancing environment

Using both symbol and words for signage

- Make visible signals from the reception desk pointing to rooms and bathrooms.
- Use both symbol and words to ensure understanding in case of any language barrier or dementia patients.
- Have accessible toilets near non accessible ones to keep consistency.

Related Quotes:

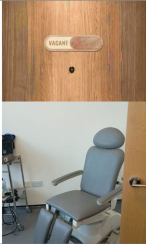
"Need to clearly mark where reception, so the new patient wouldn't wander where you are, otherwise a trip out of the street where you arrive." (Dora - Crawley)

Crawley Project Report

On-site experience **Ensuring Patient Privacy**

Treatment room disposition to ensure privacy

- Patient bed should be in the right side and not directly point to the door
- To ensure privacy we should add a "Do not disturb" sign so others can be mindful of opening the door without announcing themselves.
- Usually the first visit there will be so many questions to ask patients, so it's important to keep movable/multi-functional desk for clinicians, so that they can talk to patients while taking notes, more flexible



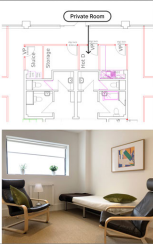
On-site experience **Ensuring Patient Privacy**

Provide a space for private conversations

There should be a comfortable sitting area to create an atmosphere where patients feel relaxed. This space should feel warm and inviting.

Related Quotes:

- "There need to have a generic consultation area, because we've experienced long waiting in a small waiting area where a clinician has come out and had a quick chat but to me, very personal conversation" (William patient and Barbara walk) (Eastbourne)
- "To have a private room to talk is very good. I don't want to share my condition in public area." (One patient in Eastbourne)




On-site experience **Effective education materials**

Use infographic and multi-media materials

To make the information more engaging and understandable, we can apply more images, infographics, videos, and virtual tool etc.

Related Quotes:

- "The one-visit letter use infographic instead of words would be better" (William patient) and Barbara (walk) (Eastbourne)




On-site experience **Effective education materials**

Integrate educational material into consultation process

Most patients don't read the leaflet, but they willing to listen to nurses' individual suggestions. To provide effective support, we can consider using educational materials into the consultation, after explaining the nurse can give to the patient.

Related Quotes:

- "I haven't read the leaflets, actually, I prefer to ask Sam" (One Patient in Crawley Centre visit)
- "I don't read any stuff as the nurse has explained everything" (One Patient in Eastbourne)
- "The information is always very helpful and informative, if I ask anything or if I had asked anything or requested anything, it's always been explained by nurse fully" (Neil) (Crawley)




On-site experience **Effective education materials**

Provide Digital Leaflets

As patients are more and more sustainable conscious, we could put QR code and wifi information for digital leaflet on the wall, while having printed copies to give on demand at the reception desk as well.

Related Quotes:

- "I know physical leaflets encourages people just leave it lying around cause it's easier to miss" (Neil) (Crawley)
- "I think electronic is the way forward. I wouldn't even necessarily look for a paper. I'd always look online then. Laptop" (Hazel patient)
- "I don't read the leaflet. The problem with leaflets in hand copy is that they're not of date, and links are much better because you can guarantee them that it's up to date" (Neil) (Crawley)




Prepare to visit **Effective education materials**

Clearly state what to expect and important information to patients before their first visit

Contact patient before their first visit via email or phone call, make sure they are physically and mentally ready. Also offer them an effective contact channel for immediate contact.

Related Quotes:


- "I suppose it's slightly easier because you don't know what and who you're going to be faced with" (Sara) (Crawley)
- "Obviously we don't quite know what to expect" (Neil) (Crawley)
- "I want to know is there gonna be anyone to park?" (our last thing you wanna do is be late for your first appointment) (Sara) (Crawley)
- "I called as I was late, but the message does not seem to pass on to the clinic staff or the front desk."



On-site experience

Other Suggestions:

- Be mindful where to put the toilet paper so its visible and accessible when using the toilet (ie. not behind the toilet)
- Provide hot drinks and vending machines with snacks.
- Having entertainment like TV, books, magazines at the waiting area.
- Play some interesting and educational videos regarding to lifestyle management, wound/lymphedema care at the reception area TV.
- Don't use carpet to maintain the environment clean.



NHS Pioneer Wound Healing and Lymphedema Centres

THANK YOU!

Video about the project

Script

Over a million people in the UK live with chronic wounds – injuries that remain open for more than 3 months. These persistent wounds primarily affect the elderly and people with diabetes. The same goes for lymphoedema, a condition causing limb swelling, which often emerges as a side effect of cancer treatments.

At the NHS Pioneer Centre, they ensure these conditions are well treated and, if not completely eradicated, managed and optimised.

Here, health professionals maintain a close relationship with their patients and aim to provide personalised, holistic care that considers their whole person, not just the wound. But what happens after patients end their treatment at Pioneer?

The numbers tell a worrying tale: 4 in 10 people with chronic wounds see their condition return within half a year. This raised a crucial question: How might we provide support for patients after they get treated so they can keep engaged in their care and avoid future recurrence or deoptimize the state of their condition?

To understand this complex challenge, 5 main activities were performed:

1 observation day to see the daily goings-on at the centre, 5 in-depth interviews with nurses, 1 workshop with the patient advisory group, 5 interviews to gather patient insights, and finally 1 future roadmap workshop with nurses.

Through collaborative design with nurses, we developed guiding principles to then start roadmapping a preferable future for them and their patients. That's how, using co-creation, anticipatory design, and ideation methods we ended up with 4 projects and several milestones to achieve in the following years.

- The Career Pathway Initiative breaks down traditional healthcare barriers, empowering medical professionals to advance their careers and provide better care.
- The Holistic Centre transformation expands Pioneer's services to include essential specialists like podiatrists and psychologists and where patients can access practical resources such as nutrition guidance and tailored exercise programs designed for their specific conditions.
- The Comfort-First Onboarding Experience addresses the anxiety of beginning treatment by creating a clear, supportive journey from day one.

Finally there is the Digital Platform project. A comprehensive system that delivers educational resources and facilitates seamless communication.

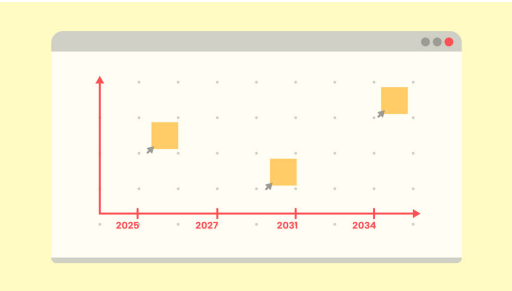
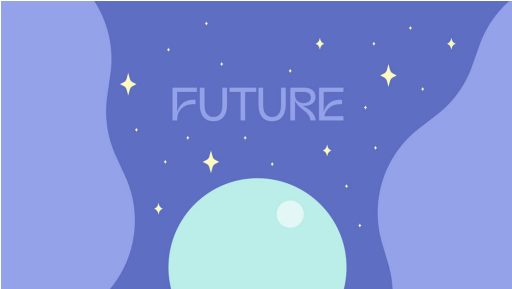
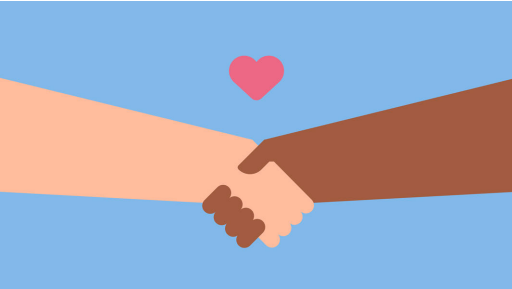
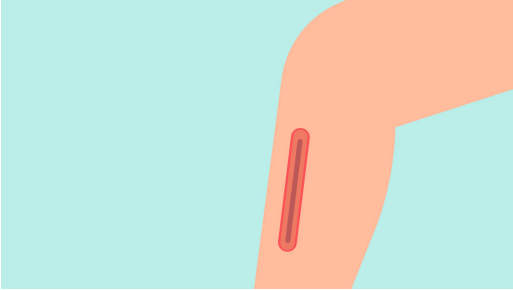
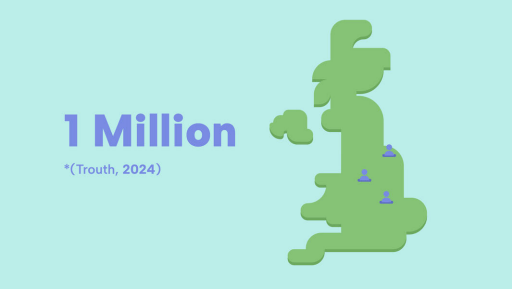
This is the biggest project and features both patient and nurse interfaces, delivering educational resources and facilitating seamless communication.

And a bit down the roadmap, this would be integrated with the existing NHS systems, enabling direct communication with GPs.

Together, these initiatives will transform Pioneer Centres into a connected healthcare ecosystem, ensuring that healing continues long after patients leave the centre's doors.

Video about the project

Illustrations and QR to video



Video and Illustrations made by Franco Salazar, Voiceover by Anuya Desai

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