My Online Care

NHS
Nottingham University Hospitals NHS Trust

My Online Care Project Showcase

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03rd July 2019

DrDoctor

Nottingham Hospitals Charity
At the heart of your care

East Midlands Academic Health Science Network
Igniting Innovation

A Short Film About the Project

https://www.drdoctor.co.uk/blog/my-online-care-how-weve-partnered-with-nottingham-university-hospitals-to-reduce-unnecessary-follow-up-appointments

My Online Care

The Problem

BBC NEWS

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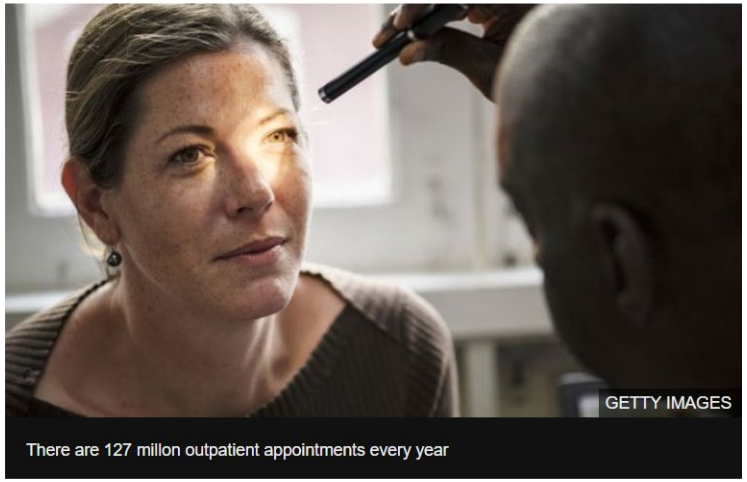
NHS outpatients service 'stuck in the 18th Century'

By Nick Triggle
Health correspondent

09 November 2018 | Health



There are 127 millon outpatient appointments every year

The way hospitals in the UK run outpatient clinic appointments is stuck "in the 18th Century", leading doctors say.

Every year millions of people travel to hospitals, where doctors check up on their health and discuss their care.

The Royal College of Physicians said many appointments were unnecessary - and outdated, inefficient systems meant large numbers were missed or cancelled.

Could patients become their own doctors?

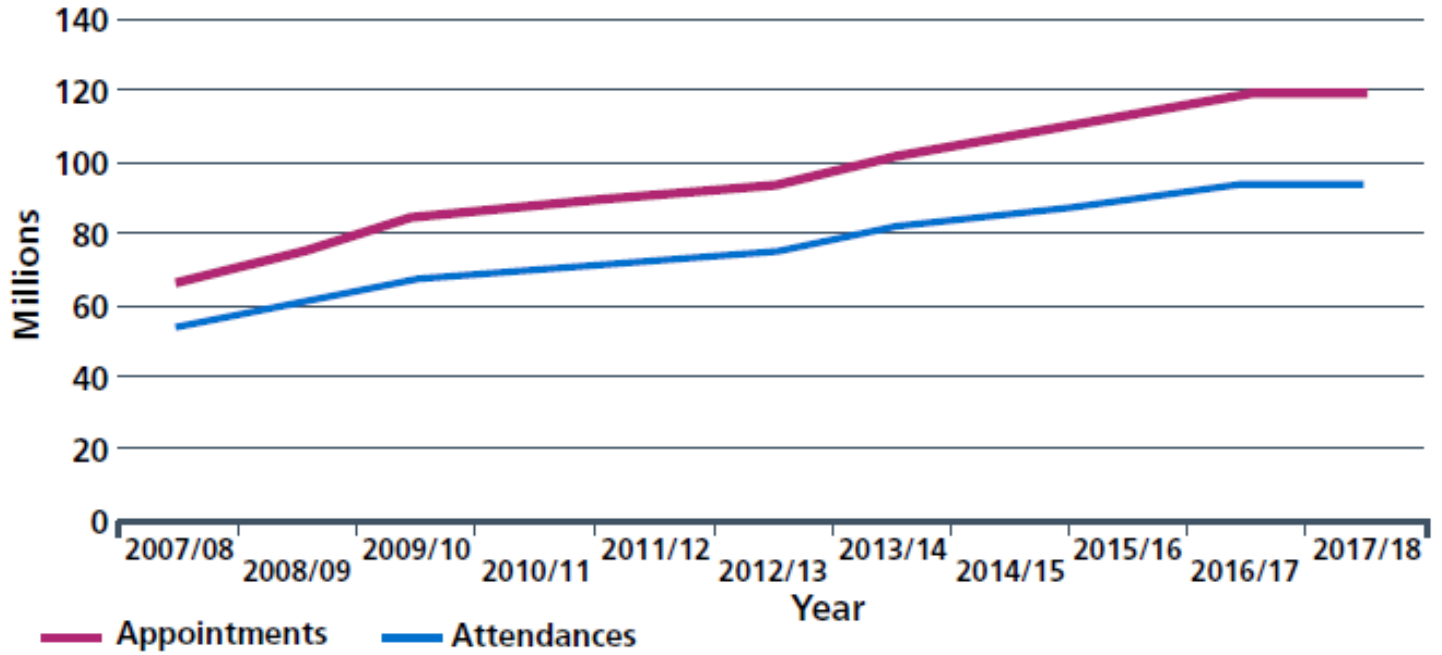
Hugh Pym
Health editor
@BBCHughPym

12 February 2019

An NHS where patients stay at home and rarely attend GP surgeries or hospital out-patient appointments is likely in a decade's time, according to US health expert Dr Eric Topol, who was asked by ministers to look at how technology would change the role of health staff in England.

Outpatient Activity 2017-18

Figure 7: Outpatient appointments and attendances, England, 2007/08 to 2017/18.



Source: NHS Digital. Hospital Outpatient Activity, 2017-18. October 2018.

Royal College of Physicians (2018) Outpatients: The Future - adding value through sustainability. London: RCP

The traditional model of outpatient care is no longer fit for purpose, ie specialty opinion, diagnosis and disease monitoring. It places unnecessary financial and time costs on patients, clinicians, the NHS and the public purse. Growing demand and expectations cannot be, and are not being, met by the status quo. It is no longer acceptable to solely consider the cost of clinical interventions in relation to individual health outcomes.

Without a considerable increase in the professional workforce, the traditional model of outpatient care cannot provide the capacity required to keep pace with demand. But more importantly, that model does not represent value for patients or providers. How we define value plays a crucial part in the design of future services and the metrics used to evaluate them.

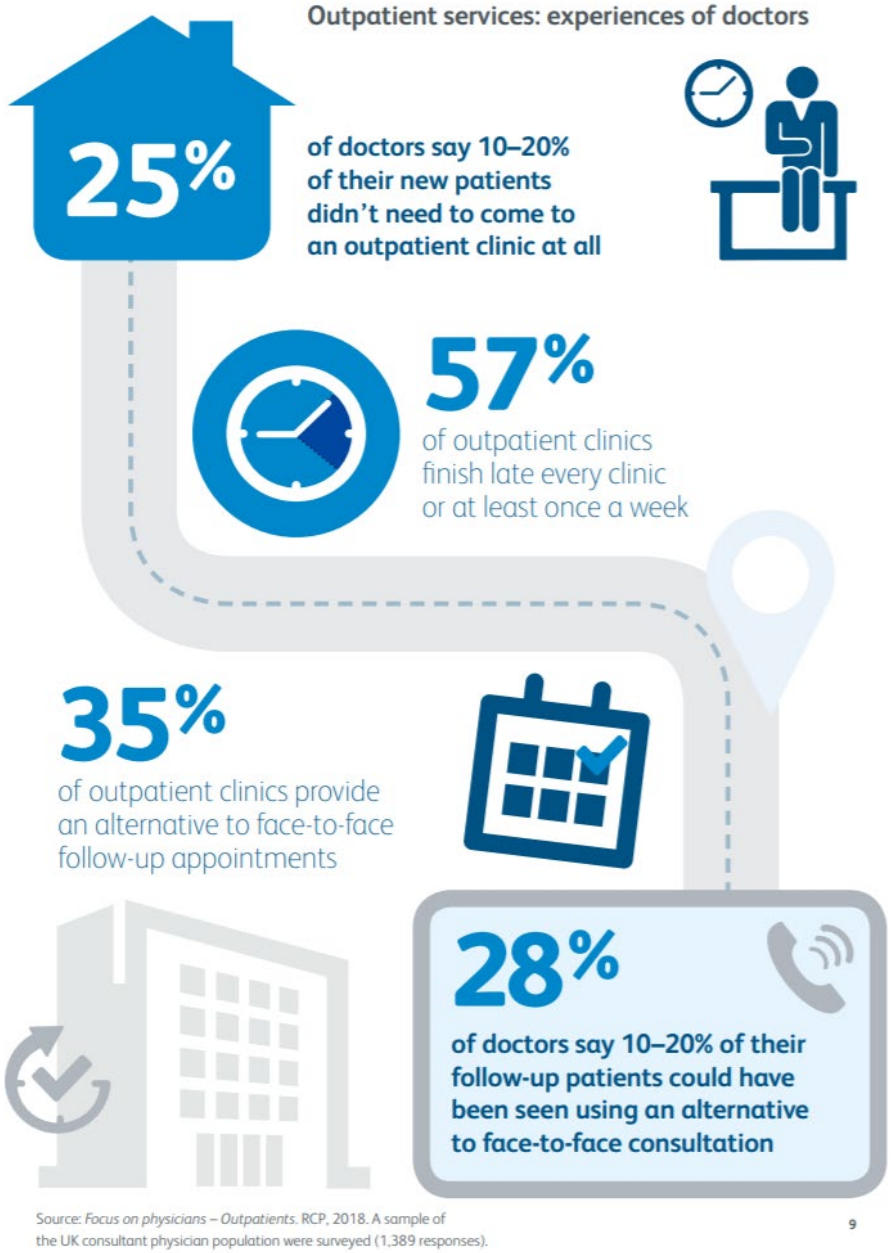
UK outpatient activity

Outpatient appointments across the UK account for almost 85 % of all hospital-based activity (excluding A&E). Demand for outpatient appointments continues to rise at a rate faster than the growth of the UK population.[1] Outpatient appointments in England alone have almost doubled in the past decade, now reaching over 118 million per year.

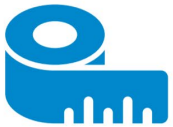
20% of pensioners who attended an outpatient appointment reported feeling worse afterwards because of the stress involved in the journey alone.

One in five potential appointments in England, and **one in four** appointments in Wales, are cancelled or reported as DNA.

5 % of road traffic in England is NHS-related.



Royal College of Physicians (2018) Outpatients: The Future - adding value through sustainability. London: RCP



Care delivery should be **personalised** to the needs of the patient.

Alternative consultation methods can allow the same clinical input to be provided in a more convenient manner for the patient.

Evidence indicates that **patients are accepting of the technology** and are willing to use it to self-monitor...

...However, patients do **not want to lose in-person contact** so a combination of telehomecare and in-person visits seems best.

Royal College of Physicians (2018) Outpatients: The Future - adding value through sustainability. London: RCP

NHS Long Term Plan

1.48. In short, the traditional model of outpatients is outdated and unsustainable. **We will therefore redesign services so that over the next five years patients will be able to avoid up to a third of face-to-face outpatient visits, removing the need for up to 30 million outpatient visits a year.** This will save patients time and inconvenience, will free up significant medical and nursing time, will allow current outpatient teams to work differently, and will avoid spending an extra £1.1 billion a year on additional outpatient visits were current trends simply to continue. These resources will instead be used to invest in faster, modern diagnostics and other needed capacity.

1.49. It's easy to be cynical about the achievability of these big technology-driven shifts in outpatient care. But there are now at least four reasons not to be. They are already happening in parts of the NHS, so this is clearly 'the art of the possible'. There is strong patient 'pull' for these new ways of accessing services, freeing-up staff time for those people who can't or prefer not to. The hardware to support 'mobile health' is already in most people's pockets – in the form of their smart phone – and the connection software is increasingly available for the NHS to credential from third party providers. And the Long Term Plan provides dedicated funding to capitalise on these opportunities, as detailed in Chapter Five.

Local Drivers

Improved Clinical Outcomes	Remove any unnecessary face-to-face follow up appointments so resources can be directed to patients with more urgent clinical need. Appointments must be deemed unnecessary from both a clinical and patient's perspective.
Improved Patient Experience	Giving patients more control over their secondary care, reducing impact on their time and cost.
Meeting Local and National Targets	Assist in reducing follow up appointments in line with Nottinghamshire CCG's target of 30%.
Reducing Risk	Reduce Risks relating to patients that are immunocompromised by eliminating any unnecessary hospital attendances.
Financial Efficiencies	Assist in reducing DNA rates for follow up appointments and reducing the overall costs of Outpatients activity.

My Online Care

Project Structure

Face-to-face appointment

Digital follow-up need assessment

Outcome communicated

Patient

From: Nottingham University Hospitals

You have been enrolled on the My Online Care project and you will be receiving a text with a link to complete a questionnaire this Friday evening.

Please follow the link in the text and complete the form by Monday. Your medical team will be in touch by phone to discuss your answers and next steps.

If you no longer want to take part in the My Online Care project please contact your medical team on 0115 969 1163 Extension 56998.

Thank you.

From: Nottingham University Hospital

Your care team invites you to complete an online form as part of your care. The Onc ImmunoT form is due by tomorrow. Please complete your form before this date.

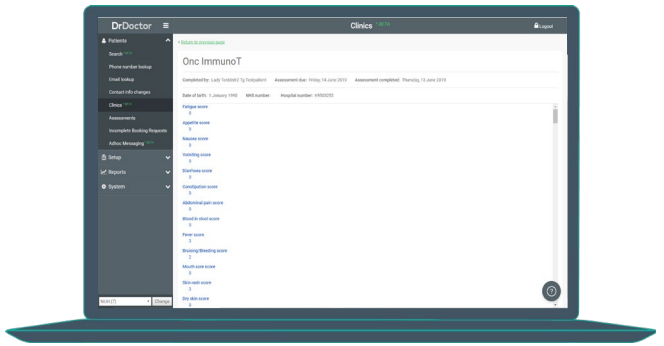
You can access your form here: https://nhs.my/4M71dQUXwmnw

If you need help, contact us at ImmunoT.

Thank you.

Patient

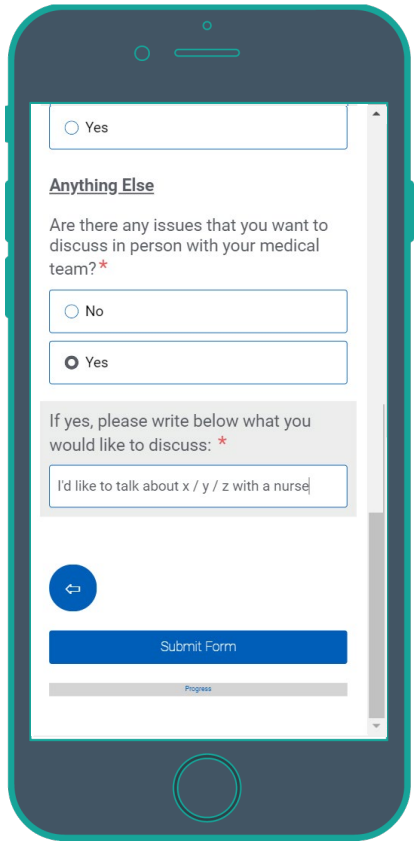
Clinician

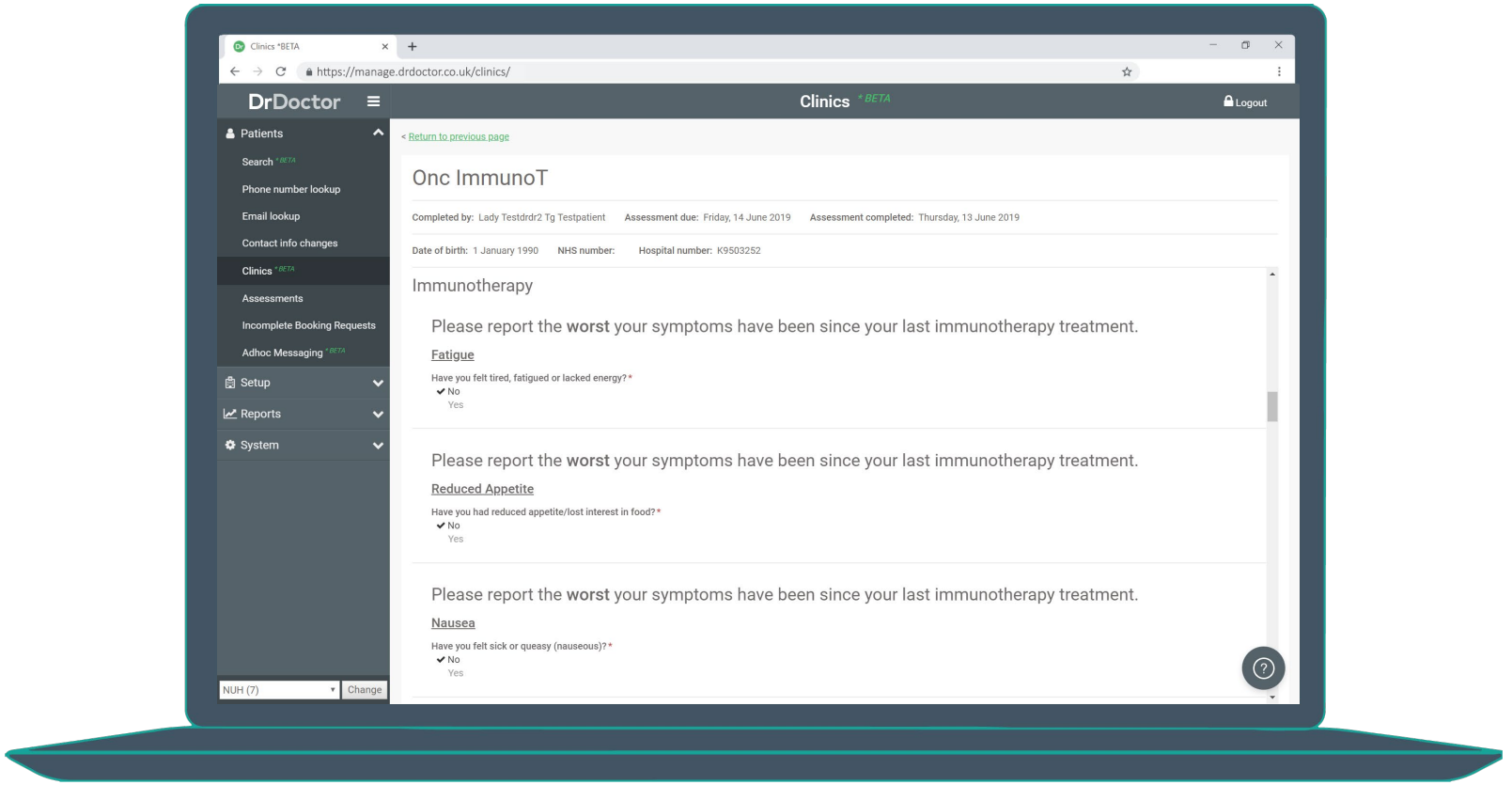


Clinician

My Online Care

DrDoctor Product





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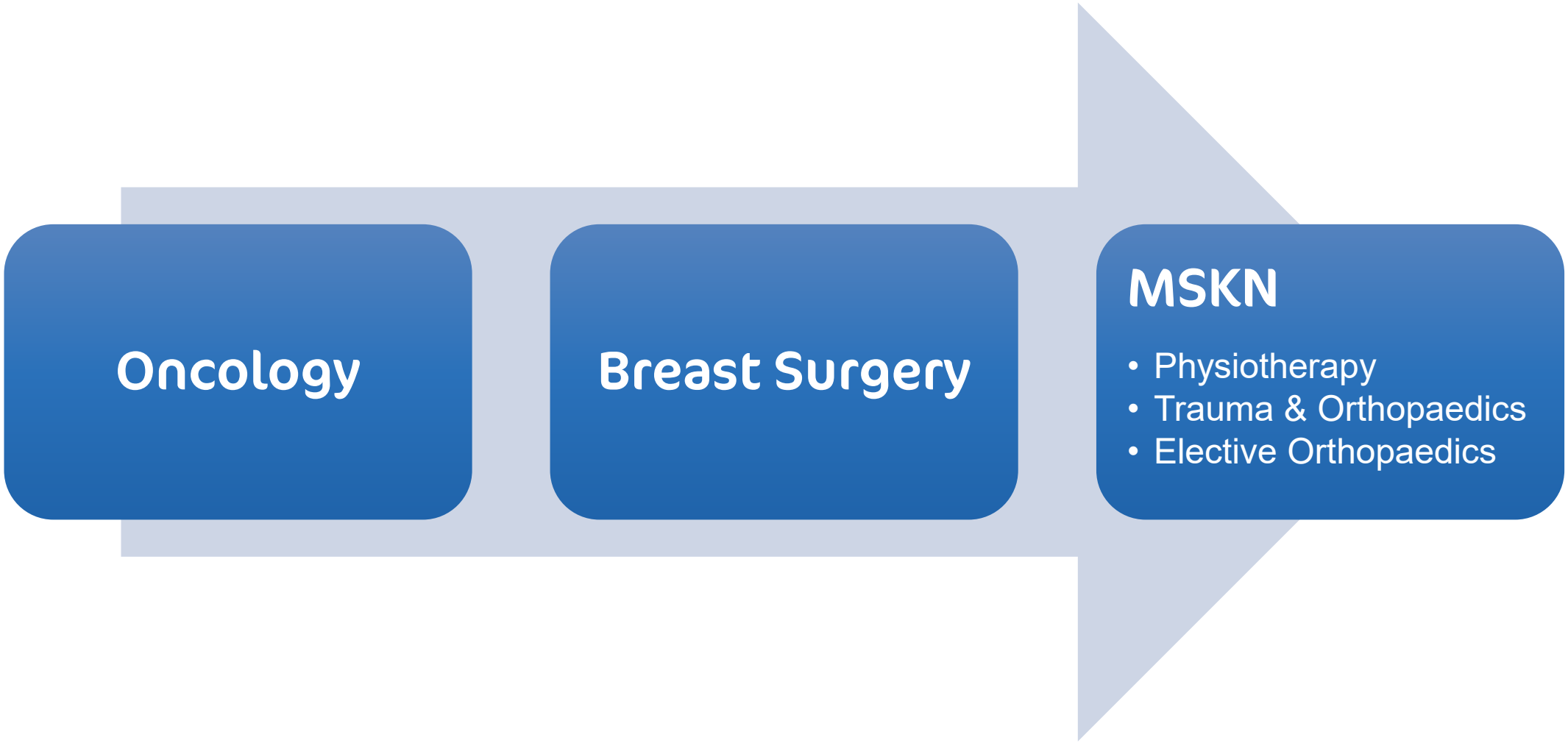
Project Timeline

My Online Care

Behind the Scenes

My Online Care

Pilot Specialties



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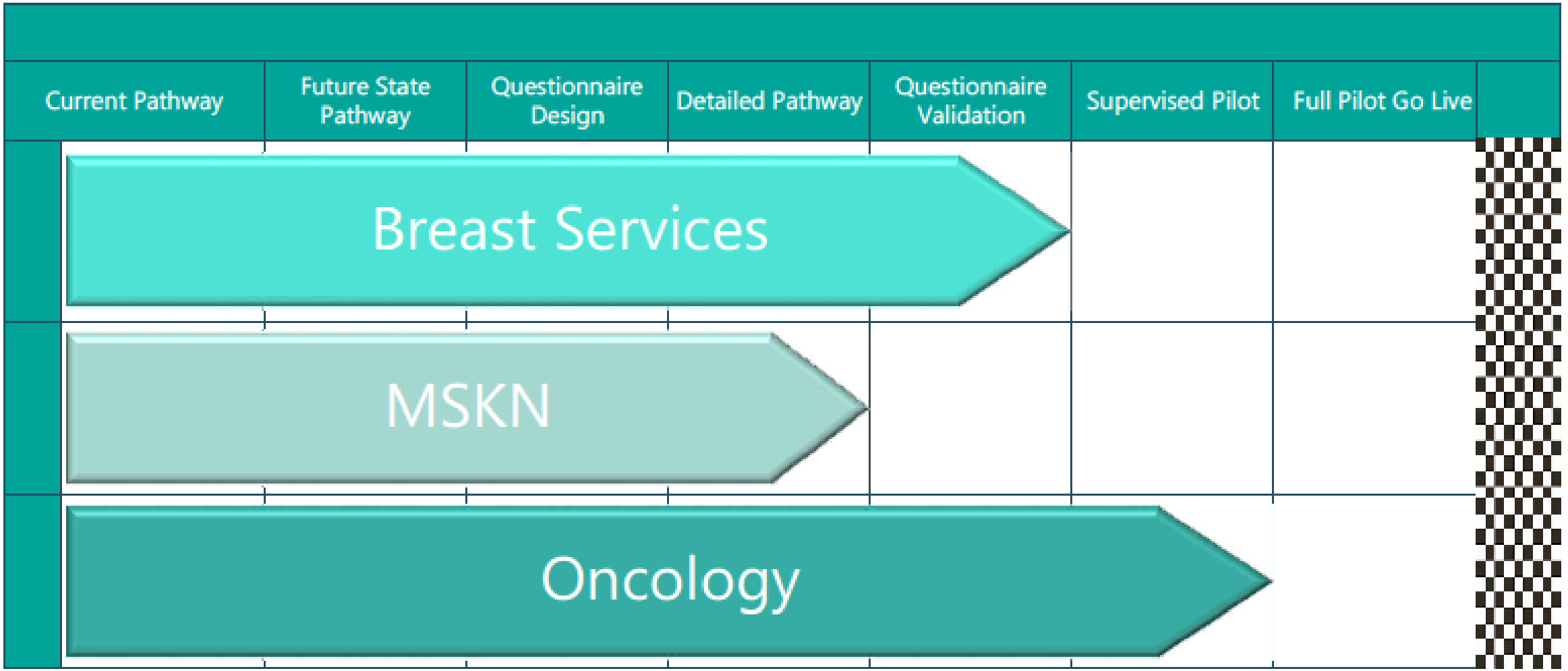
Specialty Timeline

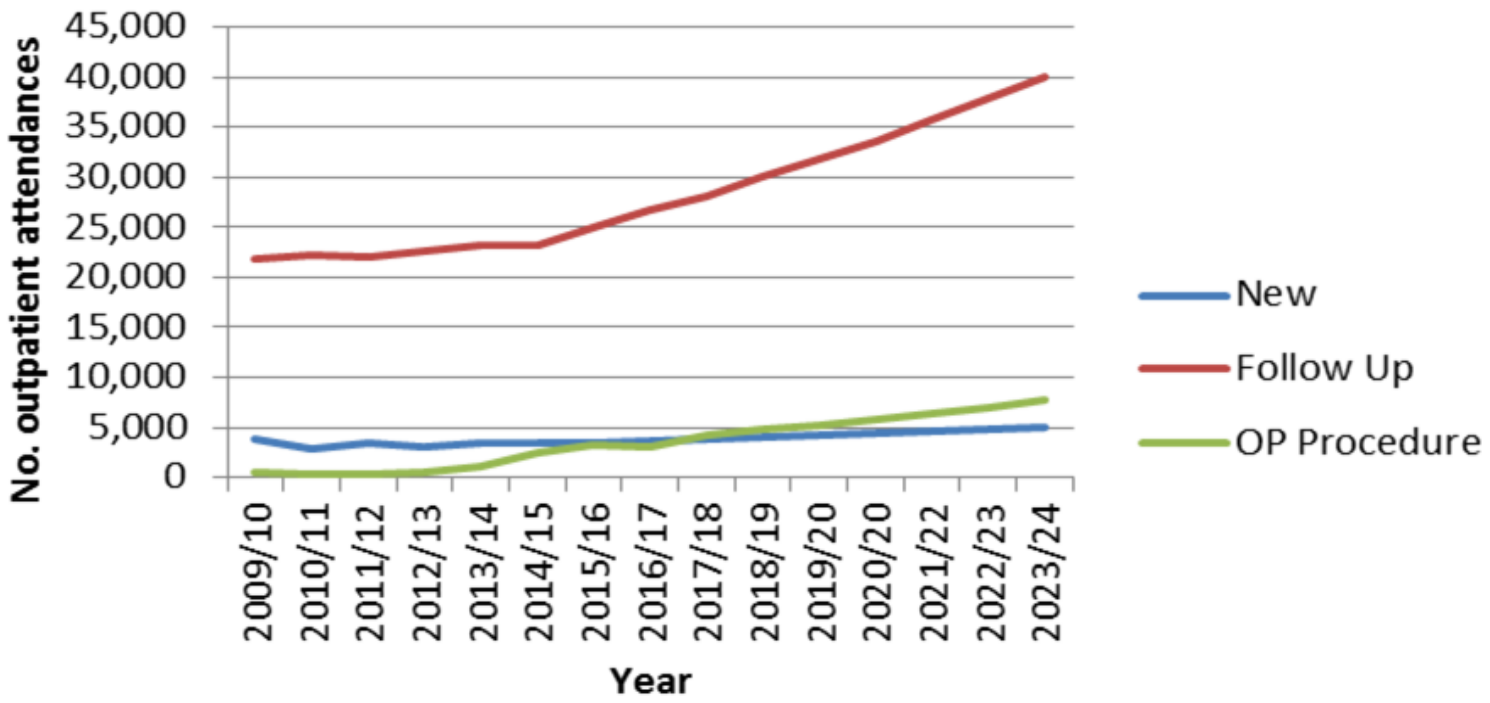


Oncology in more detail

My Online Care

Oncology Outpatient Activity

Growth in Oncology outpatient attendances



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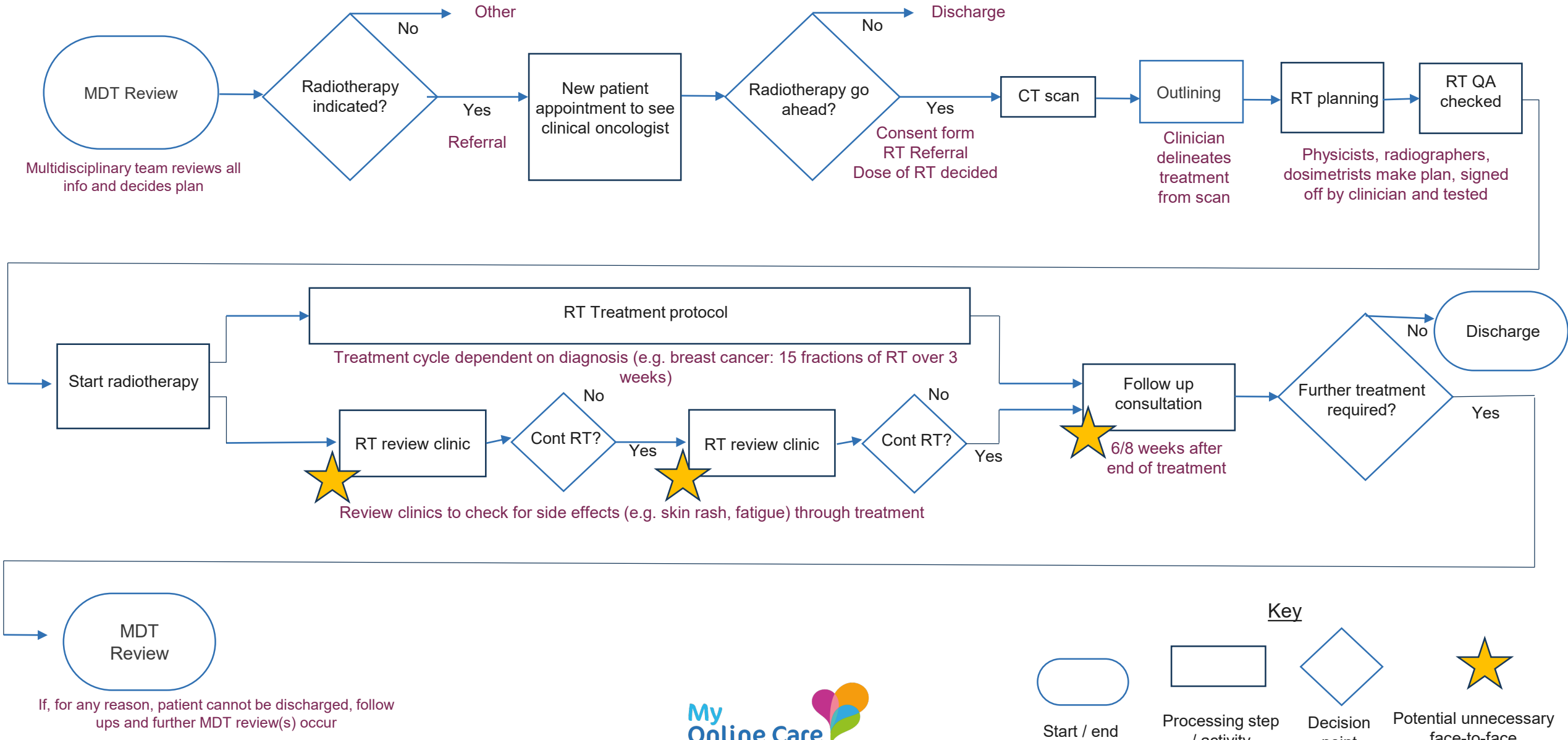
Oncology Pathway - Radiotherapy



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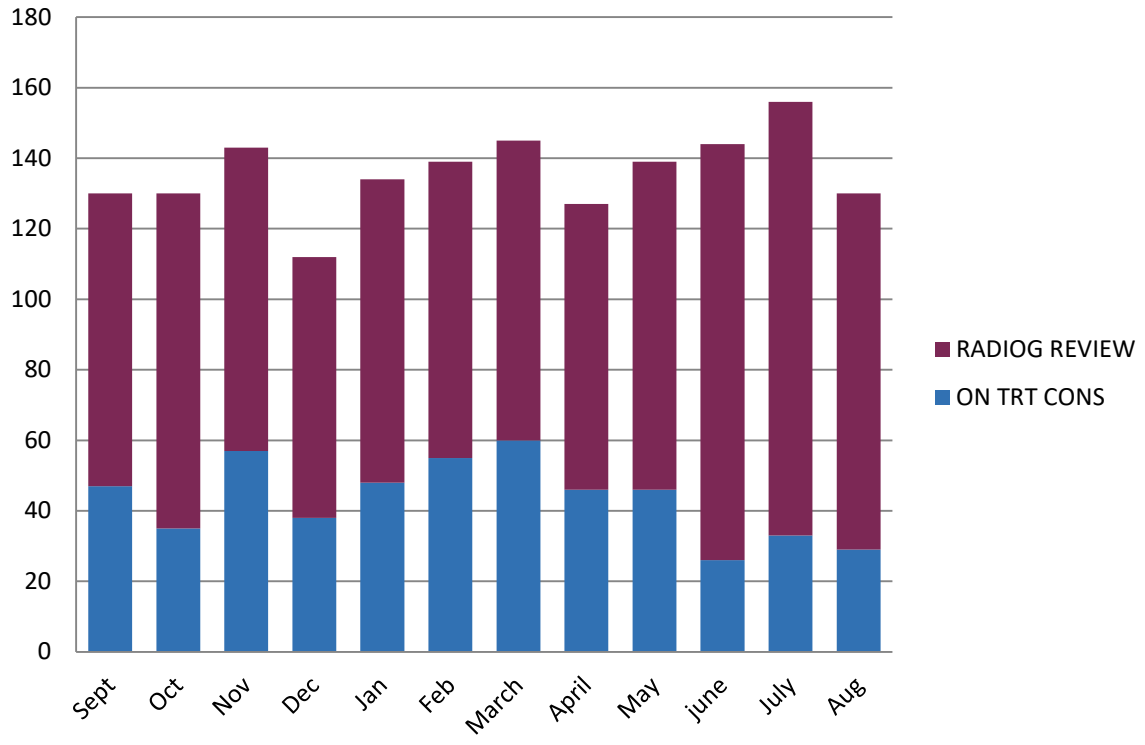
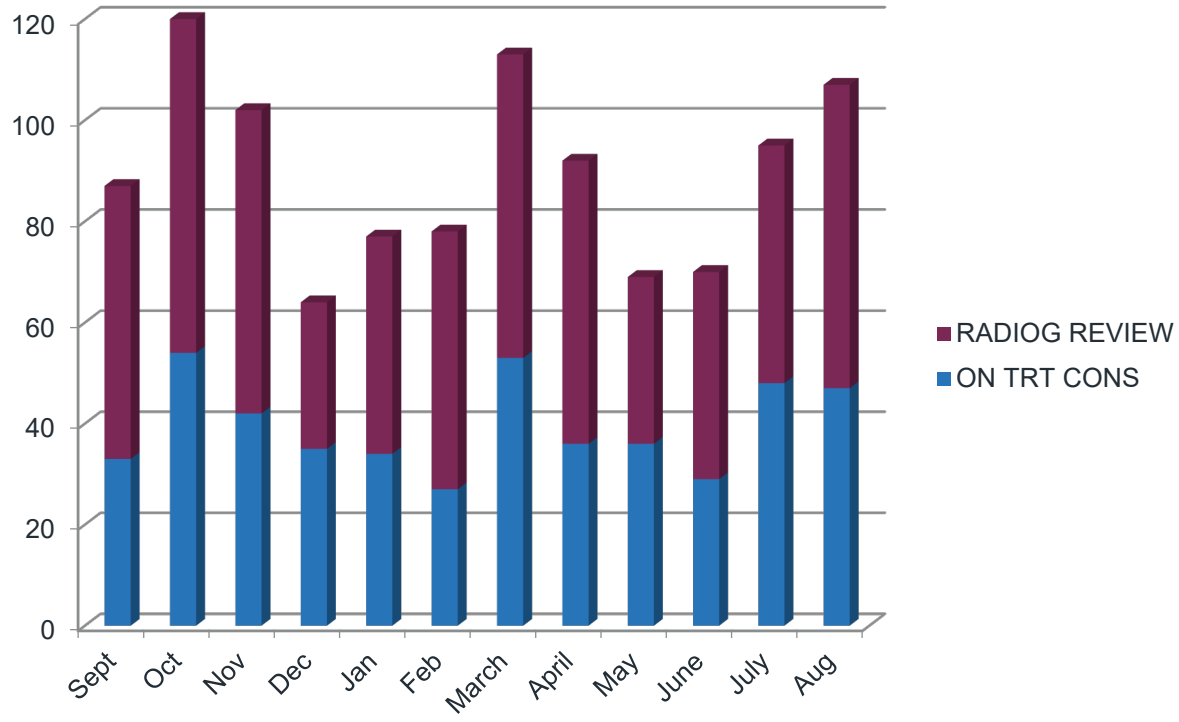
Breast review clinic frequency



> 1600 breast reviews (Sep 17- Aug18)

Prostate clinic review frequency

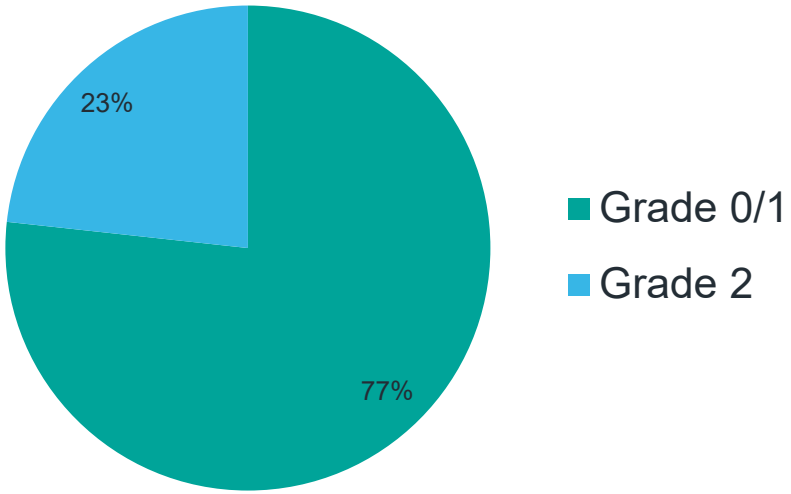


> 1000 Prostate reviews (Sep 17 - Aug 18)

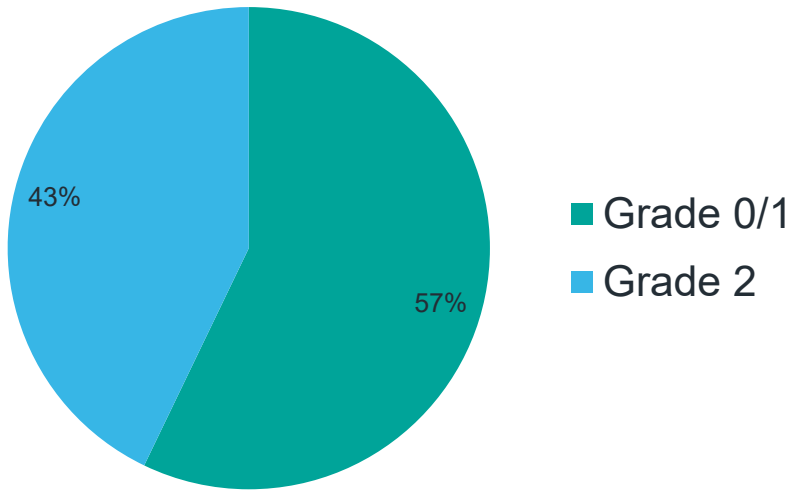
My Online Care

- 116 breast and 91 prostate RT patients were identified.
- No grade 3 or 4 toxicity.

Breast patients



Prostate patients



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If these numbers were translated to our annual RT review numbers:

- **Up to 1232 breast RT reviews**
- **Up to 570 prostate RT reviews**

Could be replaced by remote monitoring with appropriately designed PROM questionnaires

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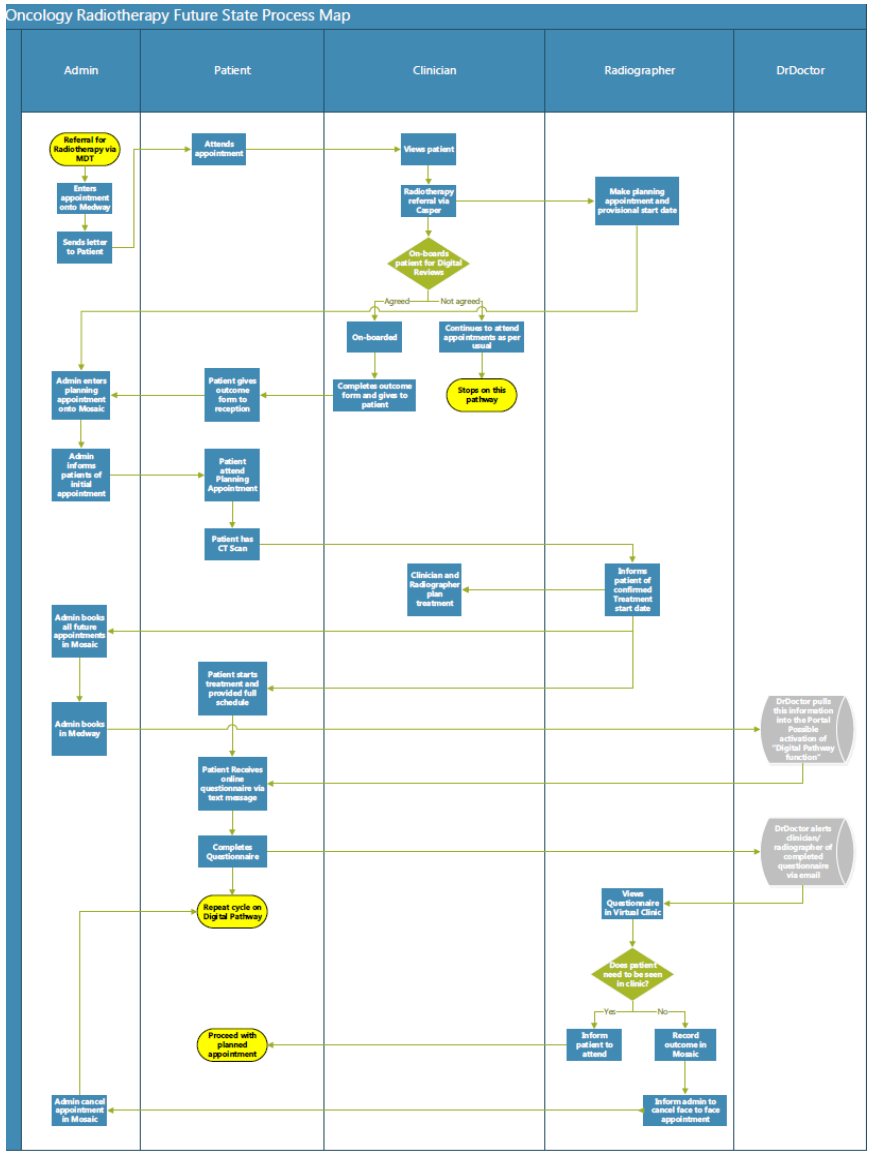
Future State with PROMs



Questionnaire Validation Study

Assess agreement between patient and clinician acute toxicity PROM questionnaires

Aim

To determine whether acute toxicity PROM questionnaires can safely be utilised as a triage tool to determine whether a patient needs a face to face review

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Validation Study

Methods

- Ran from 12th December 2018 – 8th Feb 2019
- Patients completed a digital PROM on a tablet prior to planned face-to-face appointment
- Appointment conducted as per normal
- Clinician completed a digital PROM for that patient based on information gained from face-to-face appointment

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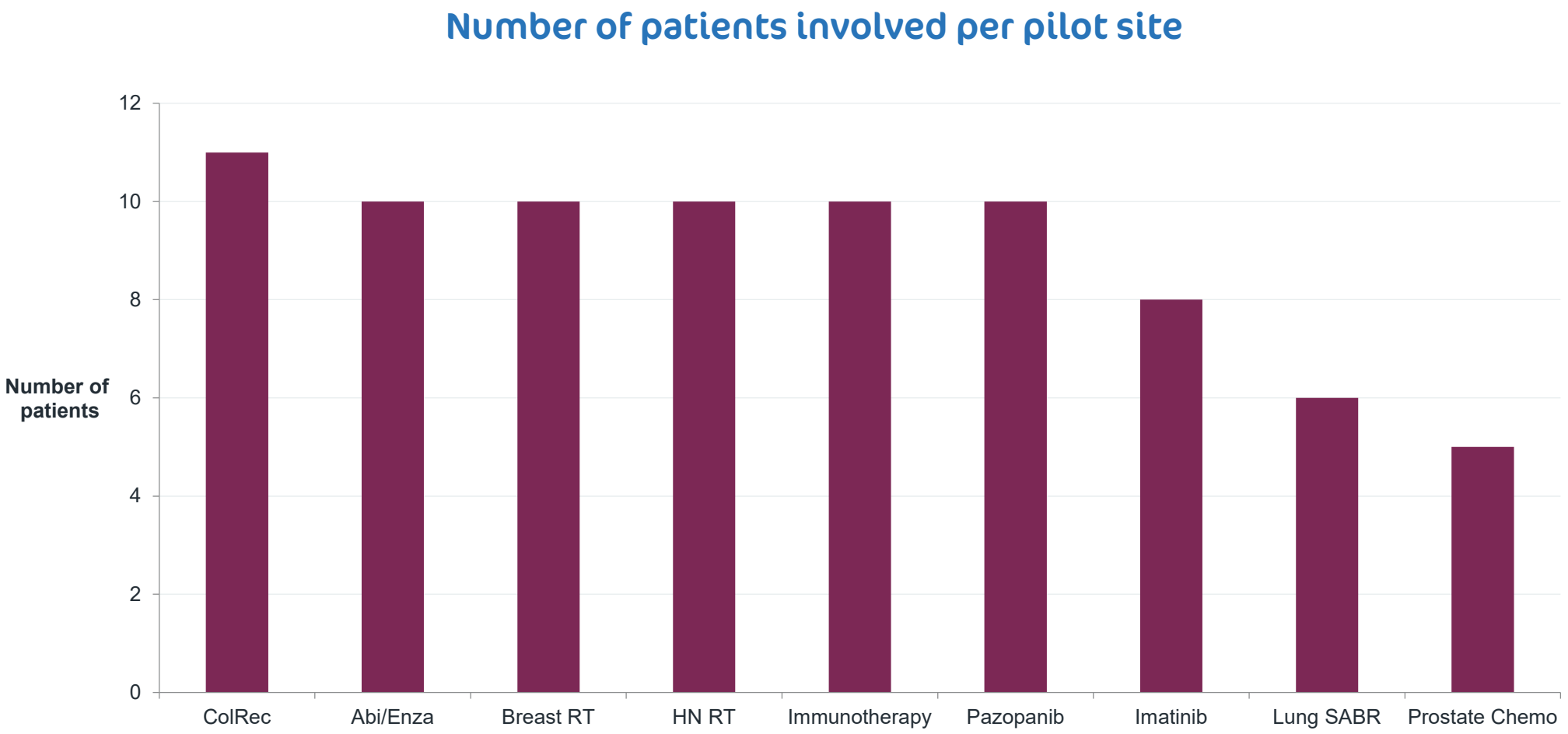
90 Patients in Total



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Were Questionnaires Indicating the Need for a Face-to-Face Accurately?

Grade 2 or above	Clinician		*Totals*
Patient	**Yes**	**No**	
Yes	44	16	*60*
No	3	27	*30*
Totals	*47*	*43*	*90*

Sensitivity: 93.6%
Specificity: 62.8% (in keeping with tendency for some patients grading toxicity higher than clinician)

96.7% (87/90) patients' questionnaires 'flagged appropriately'

False negative rate for patient questionnaires 3.30% (3/90)
(All for moderate symptoms)

My Online Care

Severe (Grade 3) Toxicity in Questionnaires

Grade 3 only	Clinician		*Totals*
Patient	**Yes**	**No**	
Yes	6	11	*17*
No	0	73	*73*
Totals	*6*	*84*	*90*

False negative rate 0%
Sensitivity 100%

PPV 35.3% (in keeping with tendency for some patients grading toxicity higher than clinician)- *(potential impact on triage line)*

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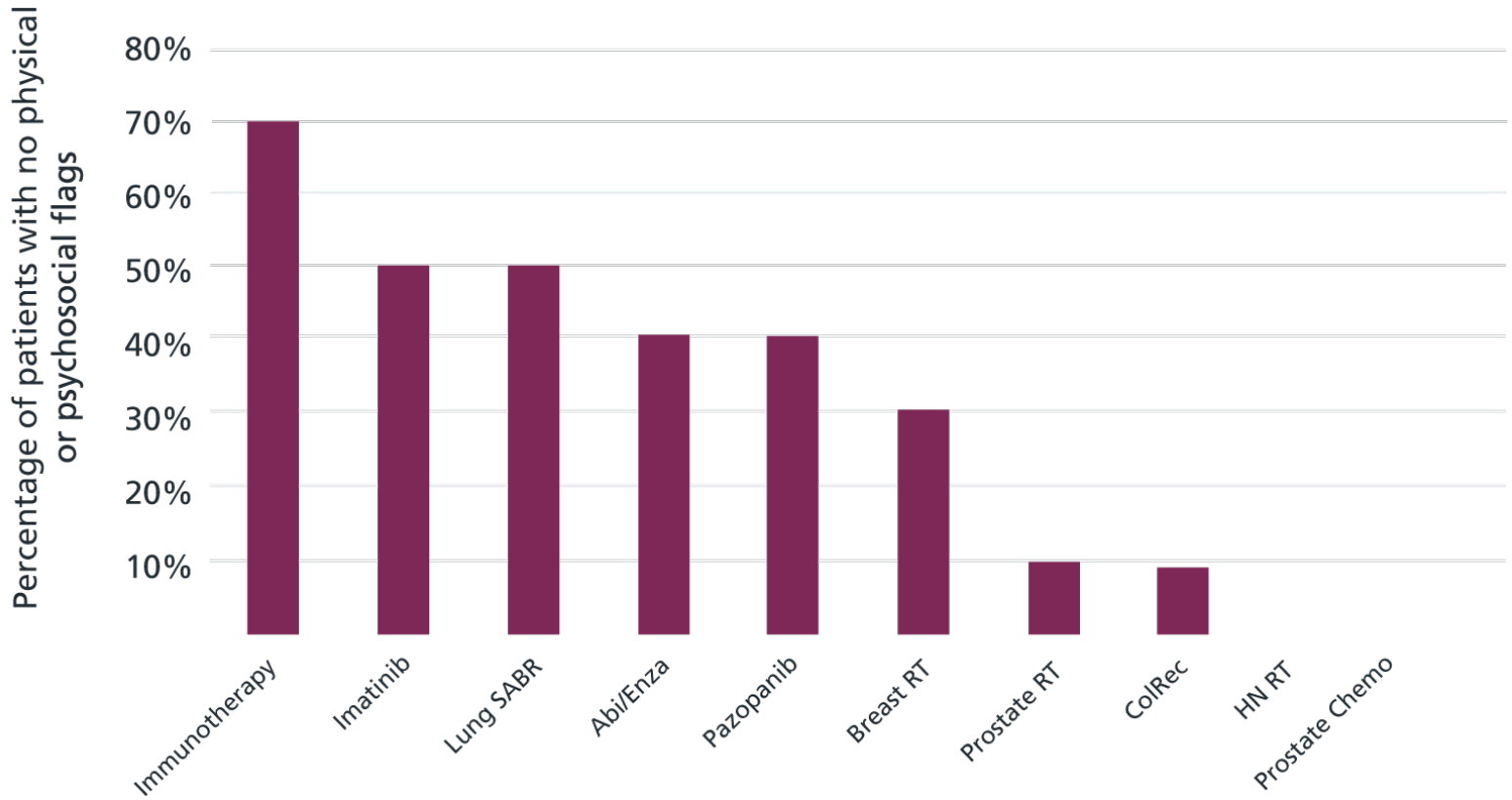
Reduction in F2F per Pilot Site

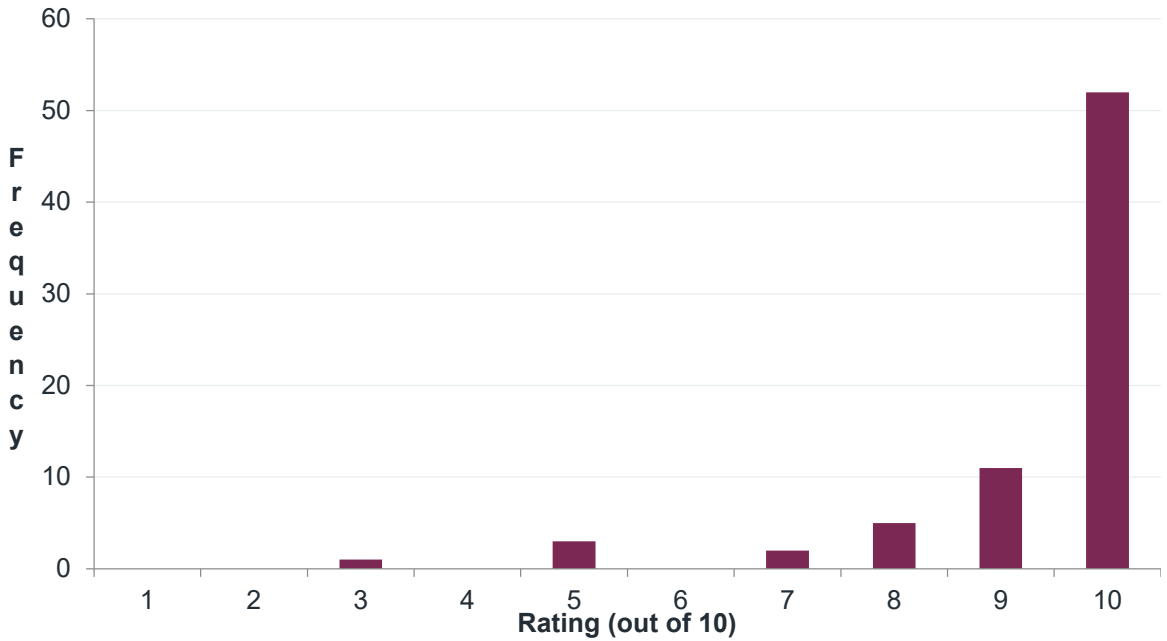
Potential face-to-face reduction in the oncology treatment sites



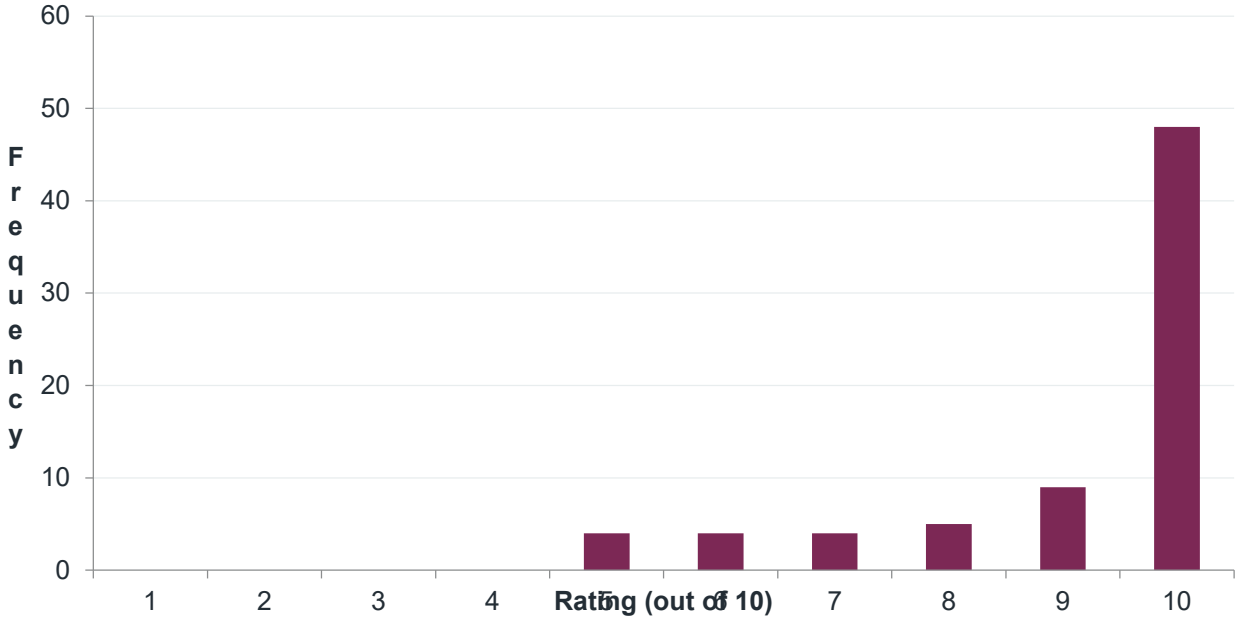
My Online Care

Patient Feedback

How confident were you with reading and answering the questions on the tablet

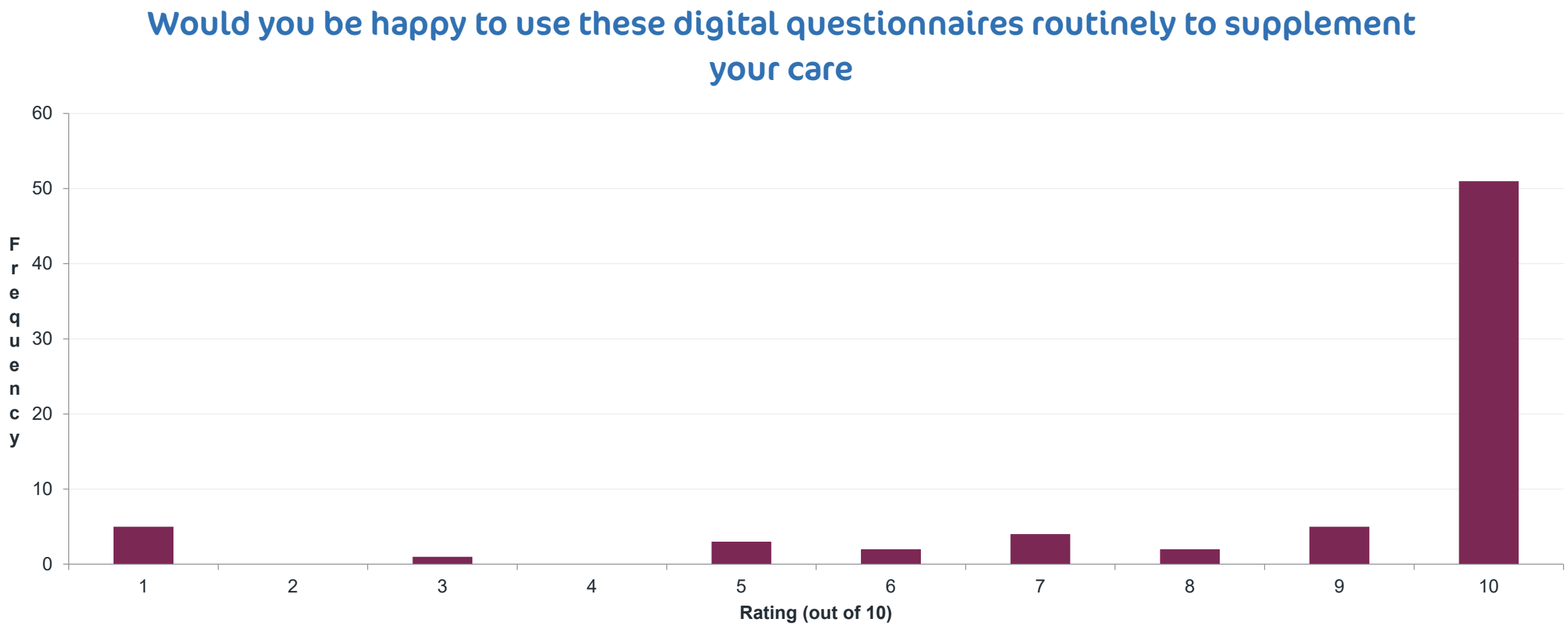


Did the questions cover everything you would normally discuss at clinic



My Online Care

Patient Feedback



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Patient Feedback- Qualitative Data

“Easy to understand”

“Easy to read and understand”

“Covers all side effects”

“Add Q re taste change - prostate chemo

“Add Q for patients with catheter for responses - Prostate RT”

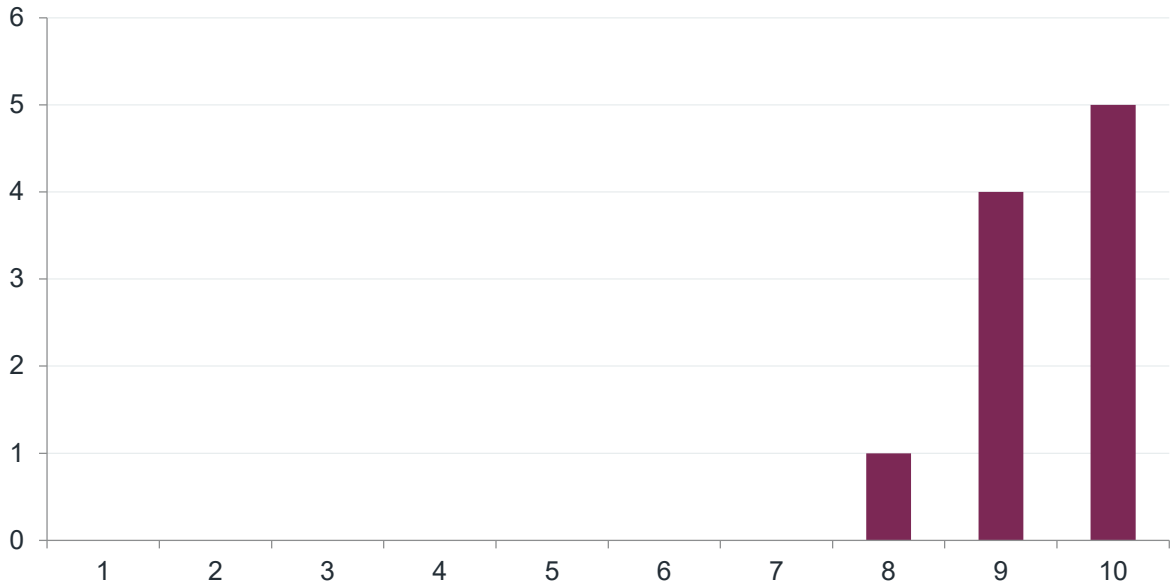
“Free text box for any specific concerns”

“Additional box to add comments”

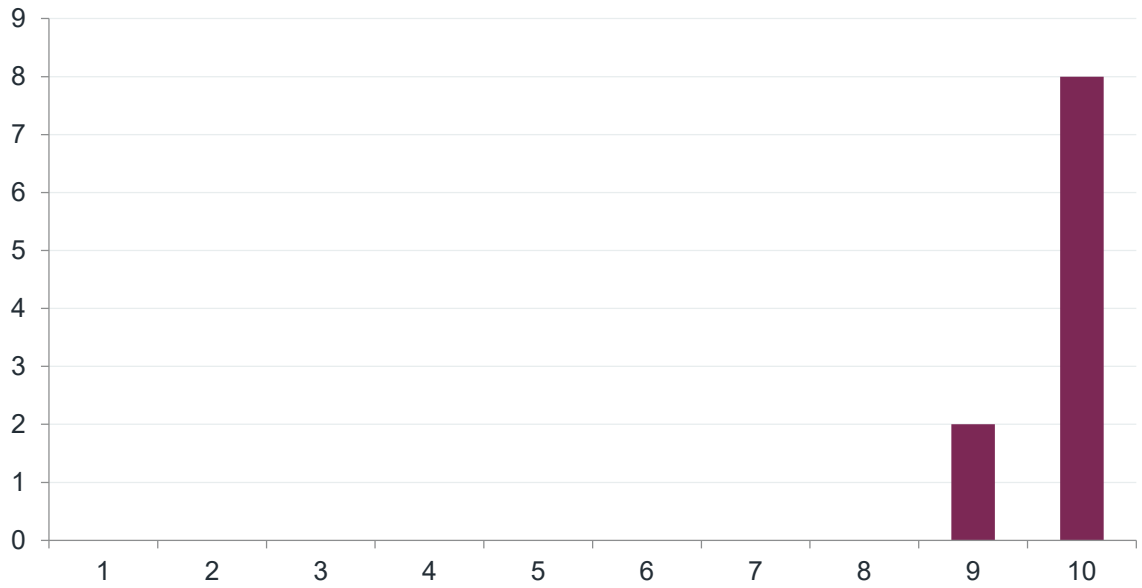
My Online Care

Staff Feedback

How user friendly was the software?



Did questions include all relevant information?



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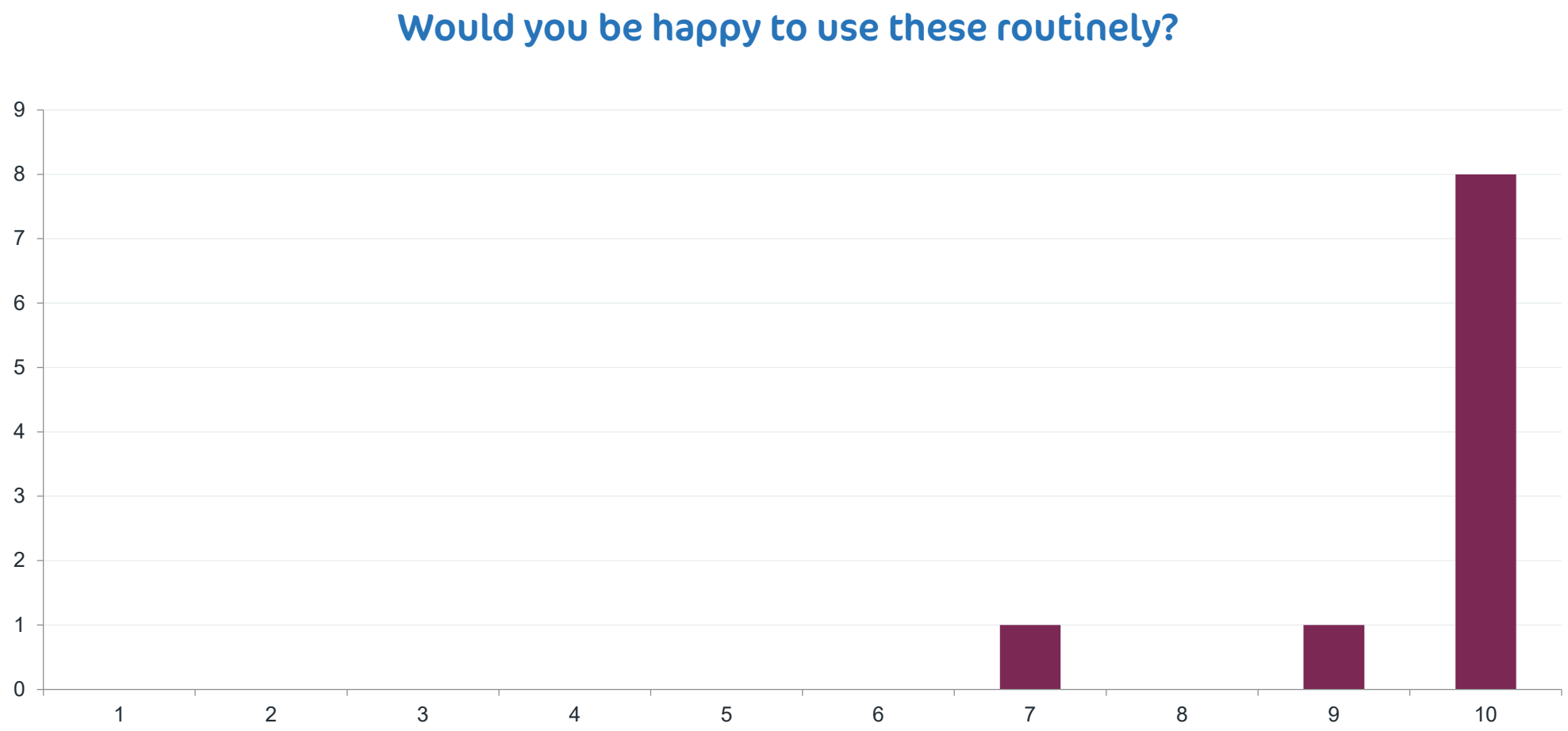


My Online Care

Supervised Pilot – Initial Data

Digital review pathway enrolment

- 5 patients enrolled in first 4 weeks; additional patients wanting to take part but awaiting on scan results.

Digital Review Clinic - 1st July

- Digital PROM review time: **1- 2 minutes**
- Outcome time (patient notification, clinical documentation, admin outcome): **10 – 16 mins**

- 2 patients on clinic – **both patients were saved a face-to-face appointment**

- Positive patient and clinician feedback

My Online Care

Patients
Search
Phone number lookup
Email lookup
Contact info changes
Clinics
Incomplete Booking Requests
Adhoc Messaging * BETA
Setup
Reports
System

< Back to Clinic view

Ms **Jean Dunn** Age: **46** ♀ **Female** Date of birth: **22/08/1972** Hospital no: 0000000Q NHS no: 000 000 0001

Scenario details

Title: FU assessment - Varices - 6 months
Type: Follow up need assessment **Status:** Reviewed

Form results

Form: Varices assessment

	05 February 2019	16 May 2019
Fatigue score	8	2
Pain score	7	3
Nausea score	3	1
Vomiting score	5	2
Fever score	7	1
	view form	view form

Varices assessment

Form due: 21 May 2019 **Form completed**: 16 May 2019 **Part of**: FU assessment - Varices - 6 months

Symptom impact score

Please answer the questions on the scale: None - 0 to Very severe - 10 (unless stated)

1. How would you describe the overall level of fatigue/tirednedd you have experienced?

✔ **0** - None
1
2
3
4
5

Outcome

Instructions

This assessment aims to figure out the need for the 6 month follow up appointment.
By default all patients are booked in for a follow-up +/- 3 weeks after the digital review.

Reviewer Review date: 22 May 2019

Doctor Mary Weather

Outcome

- ○ Follow up needed
- ◉ Follow up **not** needed
- ○ Other

Secure message to patient:

Dear Mrs Dunn

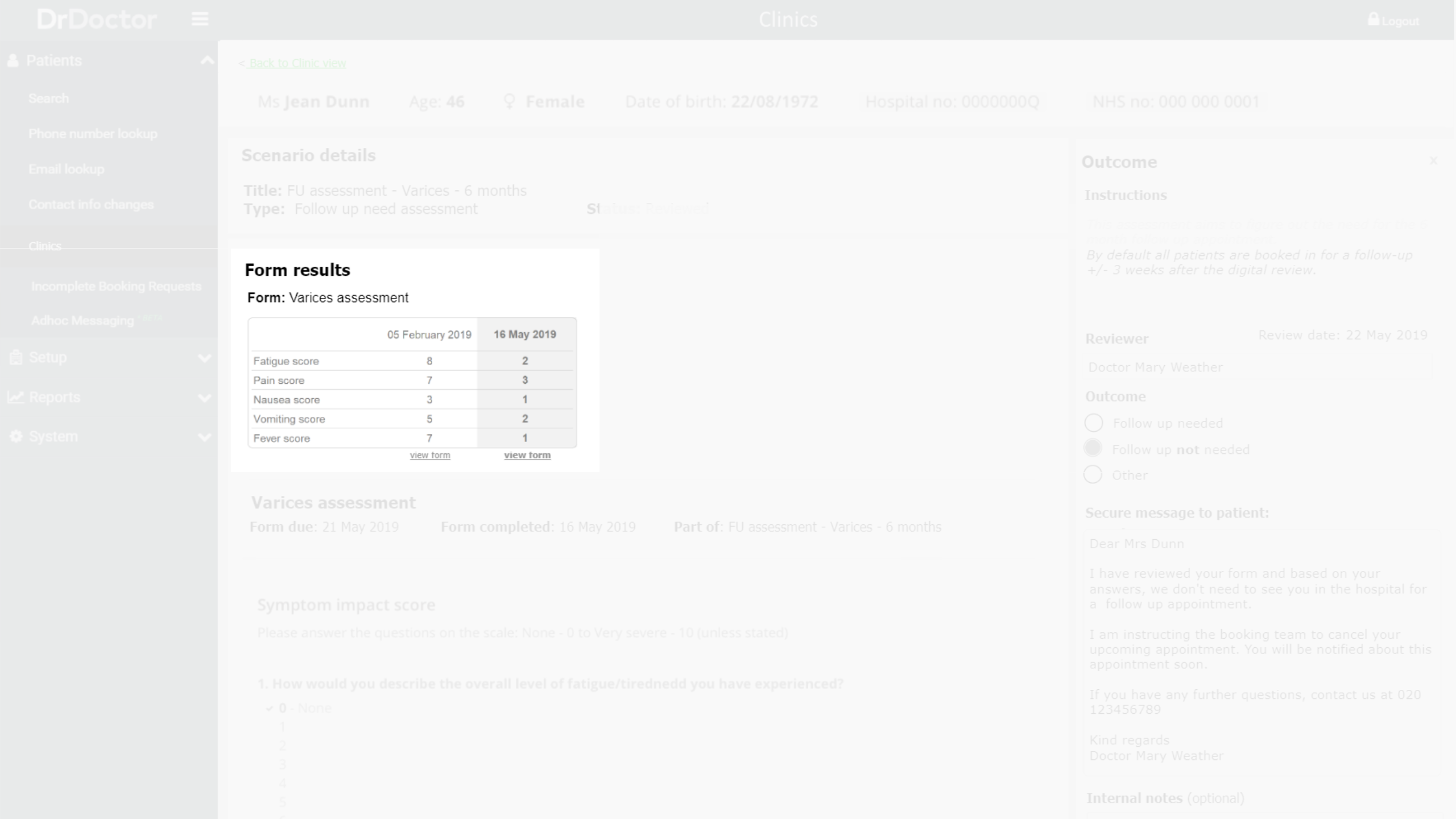
I have reviewed your form and based on your answers, we don't need to see you in the hospital for a follow up appointment.

I am instructing the booking team to cancel your upcoming appointment. You will be notified about this appointment soon.

If you have any further questions, contact us at 020 123456789

Kind regards
Doctor Mary Weather

Internal notes (optional)


DrDoctor
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DrDoctor

Clinics

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Internal notes (optional)

Future Challenges

My Online Care

Project Next Steps

- Supervised pilot with Breast Services and MSKN
- Full Pilot go-live with system developments – End of July
- Benefit realisation
- Population of Outline Business Case for next phase
- Design of Blueprint for wider rollout in NUH
- Future vision
  - New Appointments – Triage
  - Patient Initiated Follow up
  - Management of long term conditions
  - Digital Pre op

My Online Care

My Online Care

NHS
Nottingham University Hospitals NHS Trust

Thanks

Any Questions?

DrDoctor

Nottingham Hospitals Charity
At the heart of your care

East Midlands Academic Health Science Network
Igniting Innovation