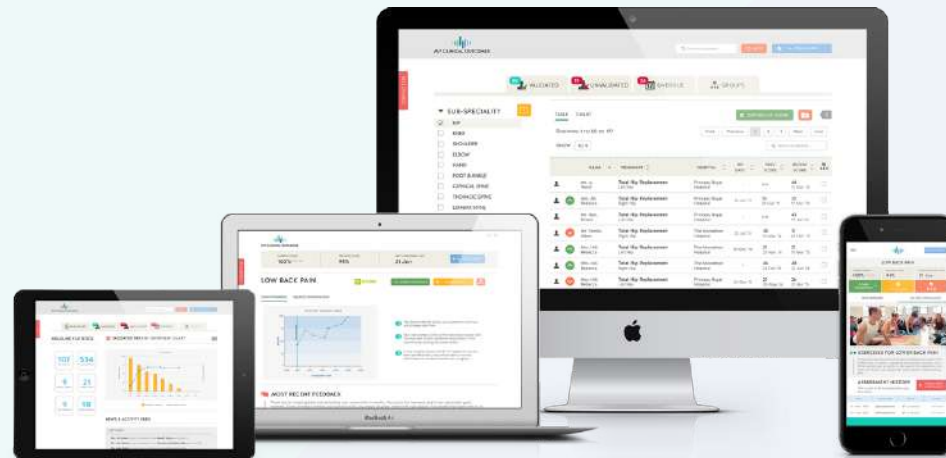


MY CLINICAL OUTCOMES

How ePROMs are moving from
RCT to routine practice

Dr Tim Williams, CEO

30th March 2021





MCO is a digital health platform for remote, long-term collection and real-time analysis of Patient-Reported Outcome Measures in routine clinical practice

MCO Overview





MCO Overview

Founded in 2011 and designed for use in any clinical area



100+ Hospitals



80+ Conditions



1,200+ Clinicians



70+ PROMs assessments



75,000+ Patients



16,000+ Assessments
sent per month

Clients and Partners Summary



MY CLINICAL OUTCOMES

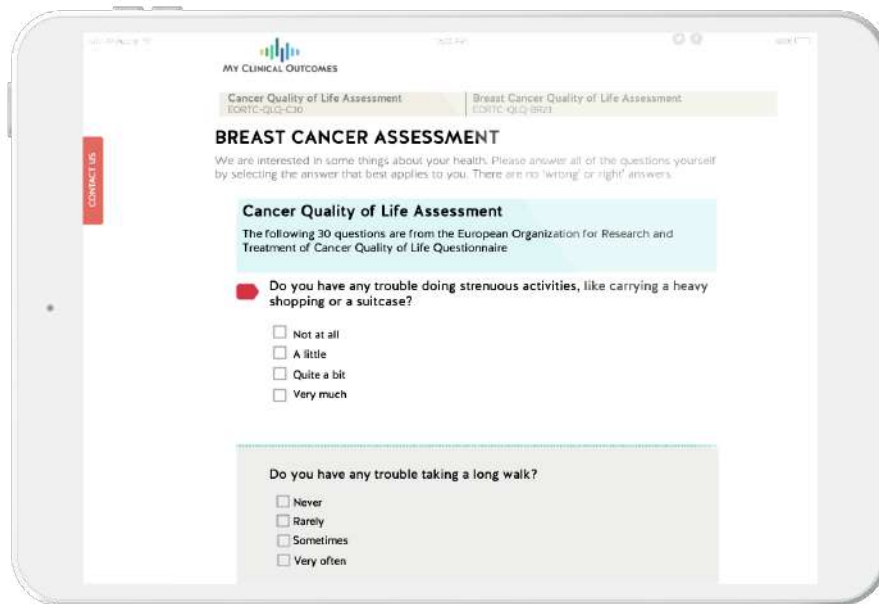
MCO works at pace and at scale with NHS and private healthcare organisations of any size





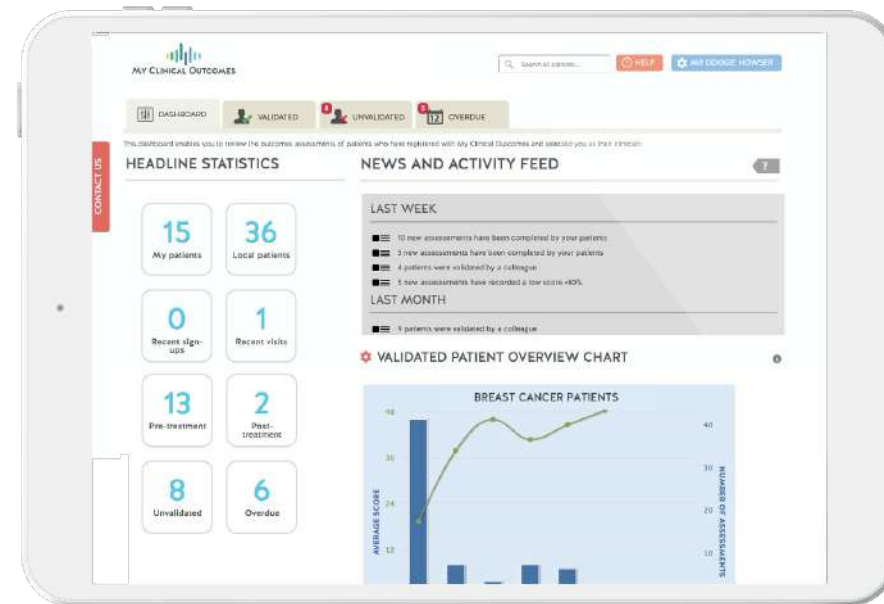
Product: Patient and Clinician

Patient Account



- Receive regular condition-specific assessments
- Track progress on personal dashboard

Clinician Dashboard



- Monitor individual patients to inform clinical decisions
- Compare performance between cohorts

Product: Data and Analytics



Activity monitoring to maximise response rates



Benchmarking of variation in outcomes

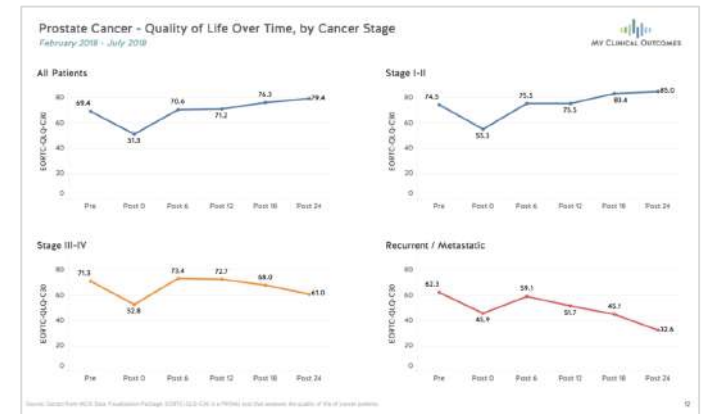
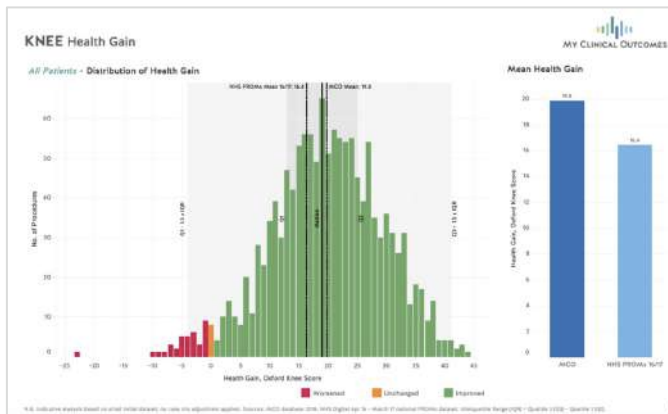
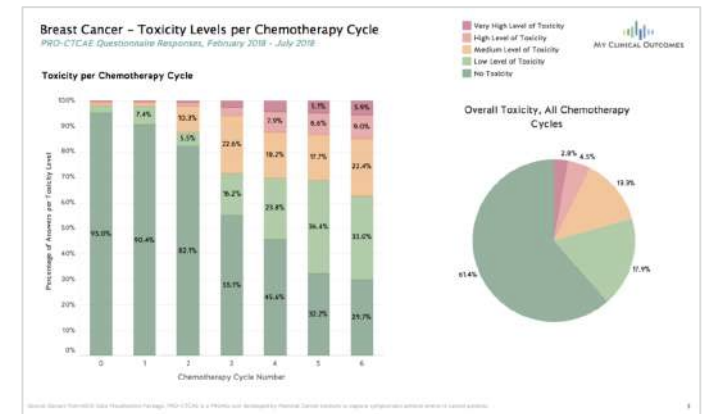
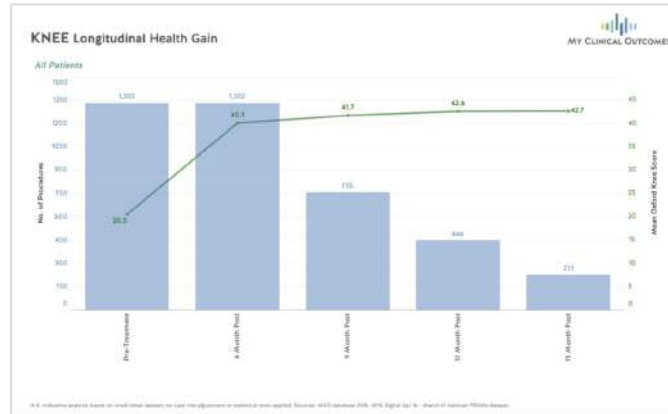


Raw data provided securely*



Submission to registries and regulatory bodies*

*can be anonymous / pseudonymous as required





How MCO Helps Healthcare Services

Asynchronous remote PROMs monitoring enables optimised patient care and system efficiencies

Patients

Clinical Benefits

Faster treatment escalation

Better outcomes & quality of life

Patient Satisfaction

Improved access

Enhanced communication with clinical team

Organisations

Stop unnecessary consultations and prioritise patients for review

Make consultations more efficient

Reduce unwarranted variation

Avoid acute admissions



Need for Remote Monitoring in Covid-19

Covid-19 has changed routine care forever; challenges will persist well into the medium term, the opportunity is to adapt and embrace the new normal ahead of the competition

COVID-19 Impact on Routine Services

Face-to-face contact drastically reduced

Services reporting inefficiencies with telephone / video consultations

Significant demand burden and reduced capacity after lockdown



Remote Digital PROMs Monitoring

Use data to prioritise patients for review during Covid-recovery

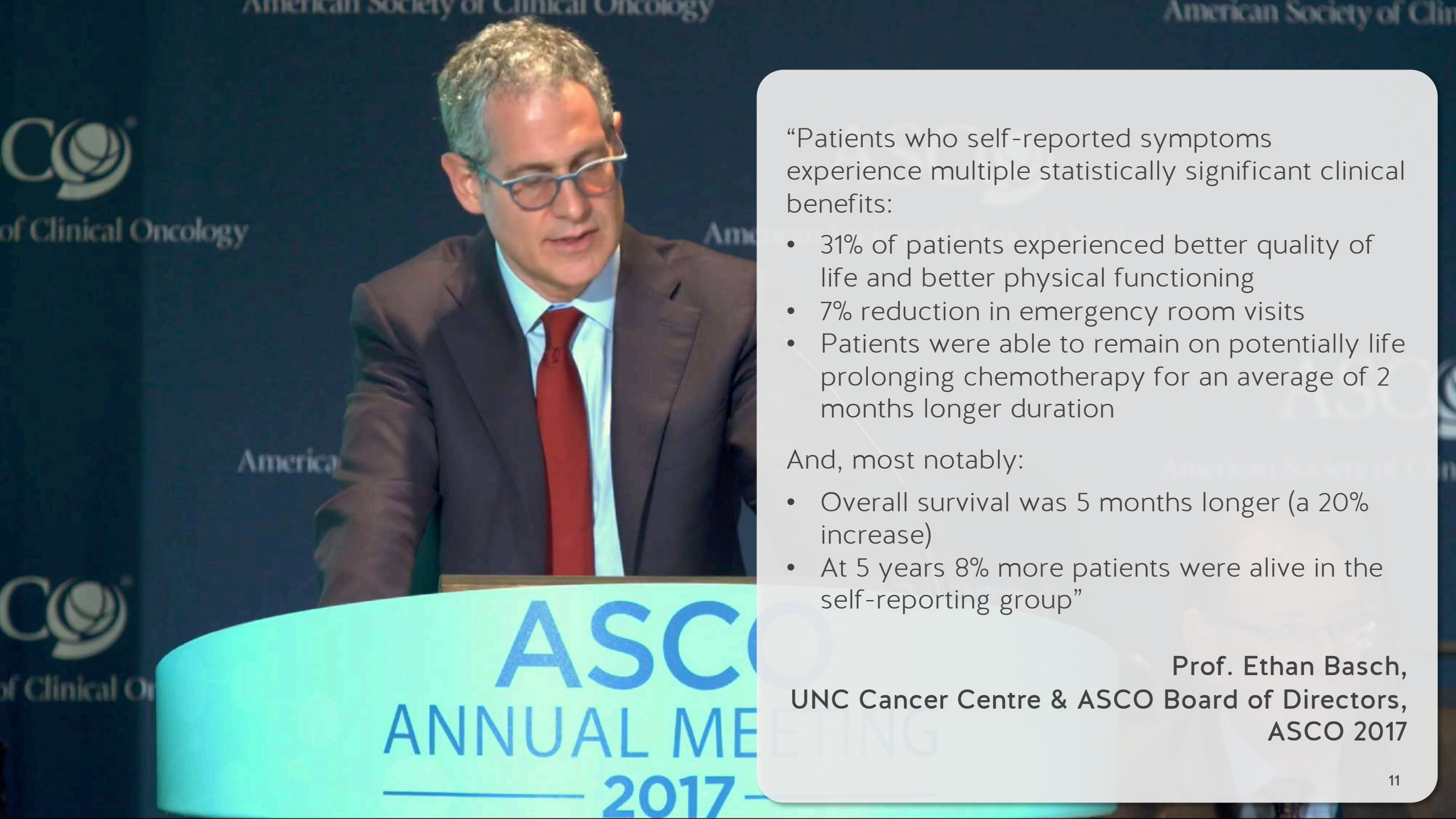
Use recent clinical progress to focus consultation on treatment decision

Allow stratified long-term patient follow-up according to need

MCO is helping NHS Scotland respond to Covid-19, scaling from 5 health boards and 7 cancers to 14 health boards and 40 cancers



Digital PROMs in Oncology



“Patients who self-reported symptoms experience multiple statistically significant clinical benefits:

- 31% of patients experienced better quality of life and better physical functioning
- 7% reduction in emergency room visits
- Patients were able to remain on potentially life prolonging chemotherapy for an average of 2 months longer duration

And, most notably:

- Overall survival was 5 months longer (a 20% increase)
- At 5 years 8% more patients were alive in the self-reporting group”

Prof. Ethan Basch,
UNC Cancer Centre & ASCO Board of Directors,
ASCO 2017

Digital PROMs in the News



MY CLINICAL OUTCOMES

FINANCIAL TIMES

ME WORLD UK COMPANIES MARKETS OPINION WORK & CAREERS LIFE & ARTS

Digital health + Add to myFT

App extends life of cancer patients

Sufferers who reported symptoms on tablet survived longer than those who did not



Twitter Facebook LinkedIn

JUNE 4, 2017 by David Crow in Chicago

Scientists have discovered a new medical intervention that can extend the lives of cancer sufferers by several months, but it is not a novel drug or therapy. It's a matter of regularly answering a few questions about symptoms.

Patients who regularly reported their symptoms via a tablet computer lived a median of five months longer than those who did not, according to a large study.

To Your Health

How a simple tech tool can help cancer patients live longer

The Washington Post
Democracy Dies in Darkness

By Laurie McGinley June 4



(iStock)

CHICAGO — Doctors often don't hear about the serious side effects of chemotherapy because patients are reluctant to complain or don't have enough time to talk about such problems during office visits, experts say.

But a new study points to a potential solution: using simple technology to encourage patients to report symptoms. Its findings show that patients with advanced cancer who reported side effects via an online tool lived a median of five months longer than those who waited to mention problems during office visits.

Health

For some cancer patients, monitoring symptoms can extend their lives

The Washington Post
Democracy Dies in Darkness



(iStock)

By Stephen Ornes
November 4, 2019 at 12:00 p.m. GMT

There's an inexpensive, widely accessible and markedly effective approach to cancer care that's as close as the tips of our fingers. It's not a new drug, type of radiation or surgical breakthrough with a slew of unwelcome side effects. It's also not a cure, but it is surprising for its simplicity.

It's a matter of regularly answering a few questions about symptoms.

A growing body of research has found that people with cancer who are routinely prompted to answer questions about their symptoms may live months longer and have a higher quality of life than people who don't track their symptoms as closely.

Patients who regularly reported their symptoms via a tablet computer lived a median of five months longer than those who did not, according to a large study.

NHS Cancer Case Studies



MCO in NHS Cancer Care

Treatment

Measure acute side-effects to inform individual treatment



NHS Ayrshire & Arran



MY CLINICAL OUTCOMES

- Patients using MCO before chemotherapy since Sept 2017
- 727 assessments completed to date; 7.8% 'red' category answers, indicating potential toxicity requiring further investigation.
- Clinicians are more responsive; service is more efficient and effective
- Patients very positive about ability to communicate more comprehensively and feeling more engaged in their care



“With a PROMs assessment available a phone call can take 2 mins; if not, you either do it properly and it takes you 10 minutes or you don’t and you risk missing something.”

Dr Peter Maclean, Consultant Haematologist and Director of Cancer Services

“It allows a bit more time for you to think about what there is to convey, and it’s useful in saving a lot of time for doctors.... I think if we could use it anyone could use it!”

Bill (& Christine), myeloma patient (and wife)

MCO in NHS Cancer Care

Treatment

Measure acute side-effects to inform individual treatment



Living with and Beyond Cancer

Capture late toxicity or signs of recurrence to sign-post back into treatment



Macmillan & RCR

- Year 2, 4 Trusts, 7 NHS sites
- All patients undergoing pelvic radiotherapy
- Screening questions for potential late effects and digital triage get to right services faster
 - 42% of patients so far answered "yes" to at least one screening question at 6 months
 - 92% of patients found the service useful



“Routine collection of PROMs improves survival of patients with advanced cancer - ...so it’s really great that a number of partners have come together to work with My Clinical Outcomes to collect data systematically.”

**Prof Jane Maher, Chief Medical Officer,
Macmillan Cancer Support**

“I found the website very easy to get on with, I used my iPad. It didn’t take very long at all to log in or to put my details in there and I found it very easy to use...I found the next steps very clear, I’d logged on, registered and the information I’d received told me I’d be asked to report again at various stages.”

**Howard, 82, prostate cancer
and MCO user**

MCO in NHS Cancer Care

Treatment

Measure acute side-effects to inform individual treatment



Living with and Beyond Cancer

Capture late toxicity or signs of recurrence to sign-post back into treatment



Track & compare long-term quality of life to ensure overall quality



MCO & NHS Scotland



In September 2017 MCO was awarded funding by the Cancer Innovation Challenge to work with NHS Scotland to develop a PROMs platform. MCO was subsequently awarded another five rounds of funding and been used across 8 health boards

NHS A&A

- Haematology
- Pre-chemotherapy toxicity assessments
- Online monitoring for efficiencies and safety

Beatson

- Breast cancer
- Acute symptom and side effect monitoring + long-term quality of life



Greater Glasgow & Clyde

- Ovarian cancer
- Quality of life information to understand treatment effectiveness
- Integration with Clinical Portal

SCAN

- Bladder, breast, CUP, liver, lung, pancreatic cancer
- Rolling out solution across multiple cancers and 4 health boards

National Digital Platform

- Strategy work to consider technical and procurement steps for national roll out

MCO & Covid-19: NHS Scotland Solution

MCO are offering use of the platform to monitor oncology patients across NHS Scotland, and have developed a general cancer quality of life platform for use across all cancer types

General Cancer Quality of Life Platform

Solution developed for immediate use across all cancer types and health boards

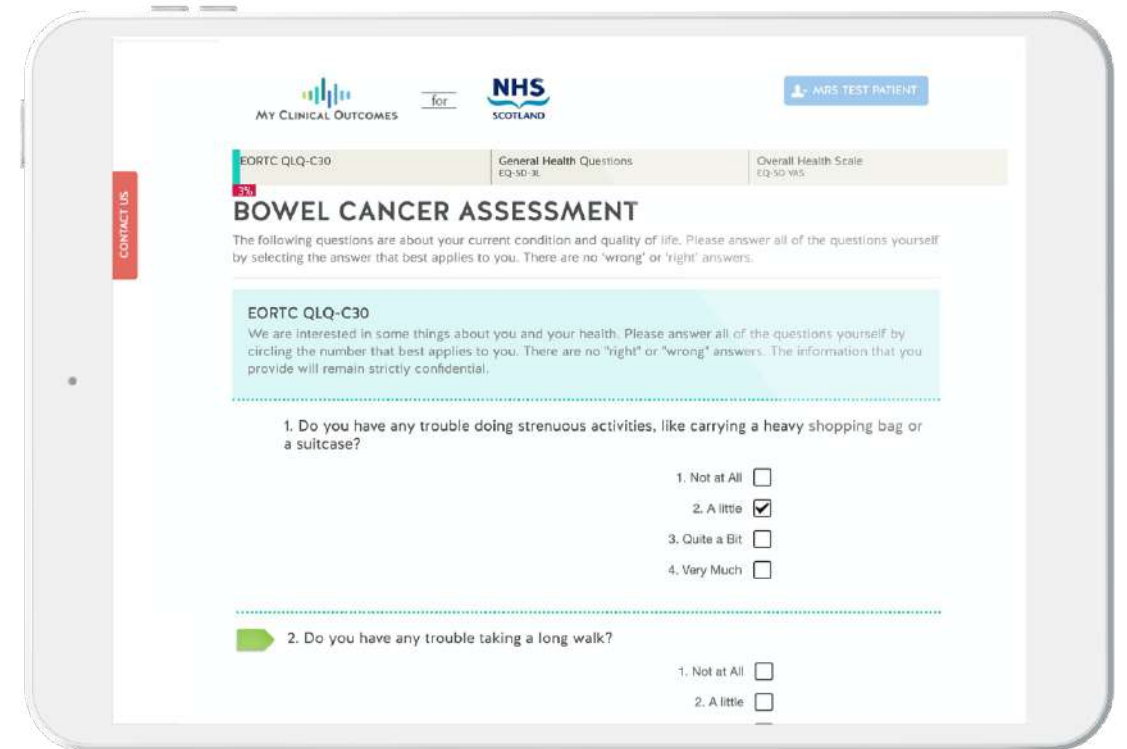
EORTC QLQ-C30 + EuroQol fortnightly



Customisation by Cancer Type

Evolution of PROMs assessments and schedule by cancer type

Alignment across regions / health boards



MY CLINICAL OUTCOMES for NHS SCOTLAND

CONTACT US

MRS TEST PATIENT

EORTC QLQ-C30 General Health Questions EQ-30-3L Overall Health Scale EQ-5D-5L

BOWEL CANCER ASSESSMENT

The following questions are about your current condition and quality of life. Please answer all of the questions yourself by selecting the answer that best applies to you. There are no "wrong" or "right" answers.

EORTC QLQ-C30
We are interested in some things about you and your health. Please answer all of the questions yourself by circling the number that best applies to you. There are no "right" or "wrong" answers. The information that you provide will remain strictly confidential.

1. Do you have any trouble doing strenuous activities, like carrying a heavy shopping bag or a suitcase?

1. Not at All
2. A little
3. Quite a Bit
4. Very Much

2. Do you have any trouble taking a long walk?

1. Not at All
2. A little

NHS Scotland Roll-out Post-Covid



Covid has significantly accelerated the adoption of MCO to support the remote monitoring of cancer patients across the 3 NHS Scotland regions

Cancer Type	WoSCAN	SCAN	NCA
Bladder			
Breast Cancer (Secondary)			
Colorectal / Bowel			
CUP			
Gynaecological Cancers			
Haematological Oncology			
Head and Neck			
Lung			
Musculoskeletal Oncology			
Prostate / Urology			
SACT			
Sarcoma			
Therapies			
Upper GI			

BSUH ESC Project Summary



BSUH ESC Summary

22nd Sept 2020 – 29th March 2021



Brighton and Sussex
University Hospitals
NHS Trust



MY CLINICAL OUTCOMES



6 Hospitals



13 Cancer types



51 Clinicians



1,480 PROMs
assessments



296 Patients



51,800 Symptom
Assessments

MCO Patient Activity

22 September 2020 - 29 March 2021

Total Registered Patients (To Date)

296

Validated Patients

296

Unvalidated Patients

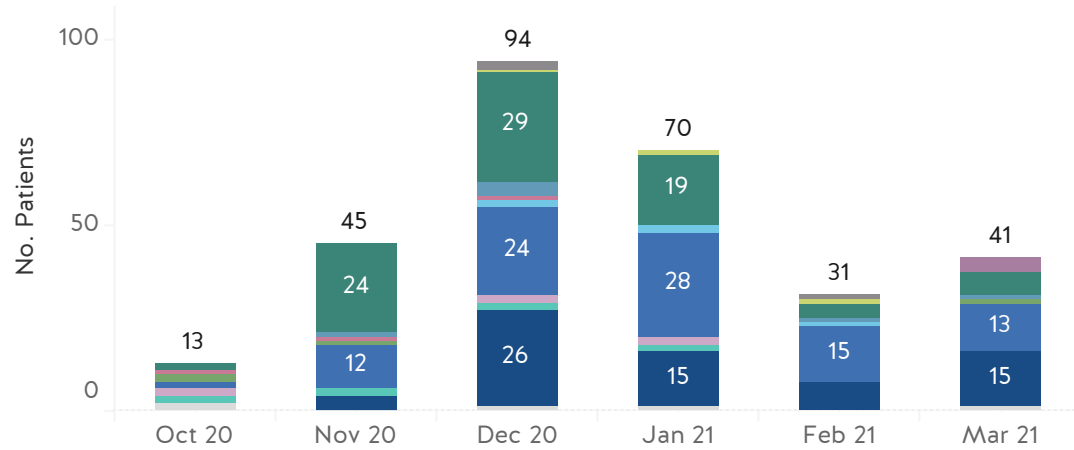
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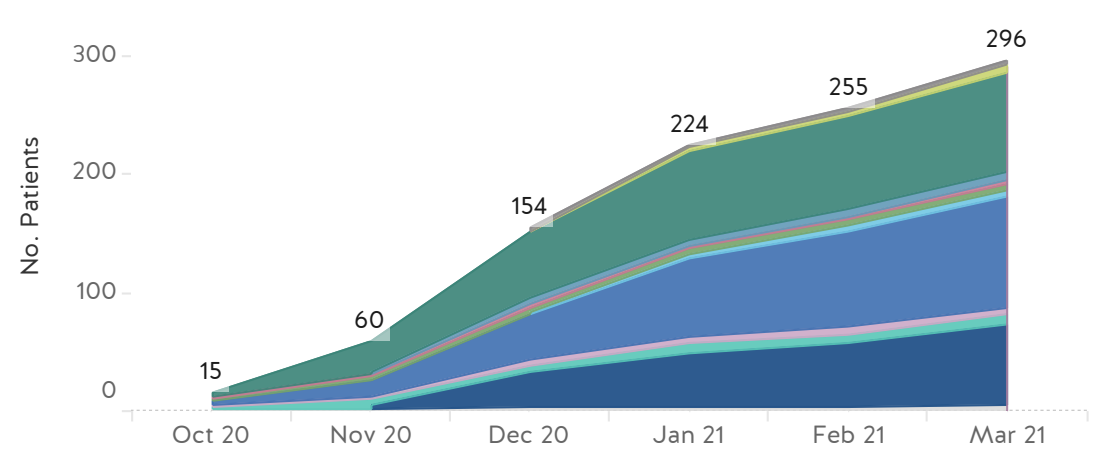
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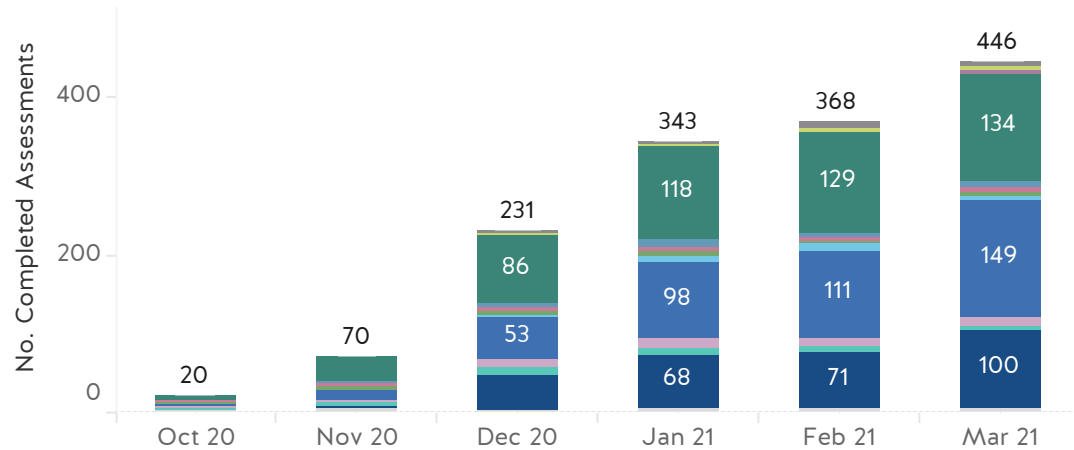
Monthly Patient Registrations By Cancer Type



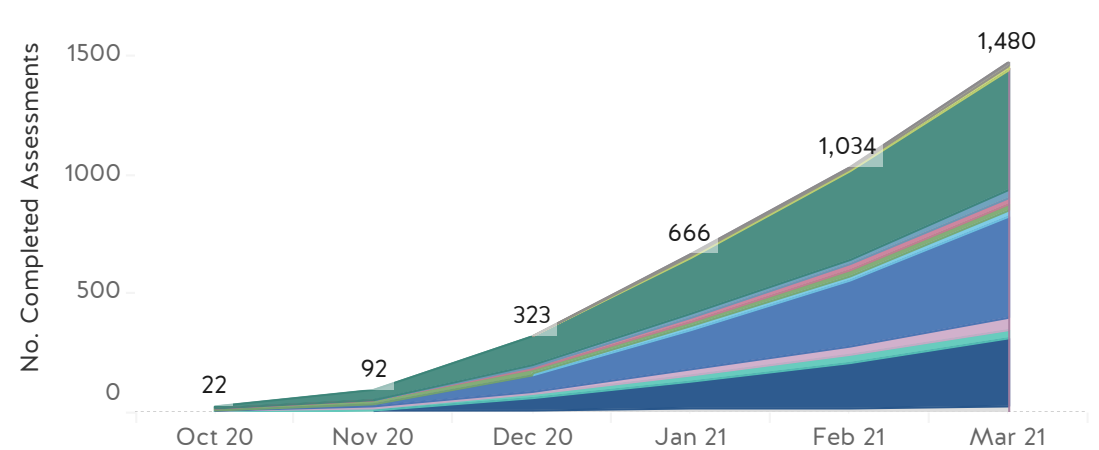
Cumulative Monthly Patient Registrations By Cancer Type



Monthly Assessment Completions By Cancer Type



Cumulative Monthly Assessment Completions By Cancer Type



Cancer Type

- Bladder Cancer
- Breast Cancer (Primary)
- Kidney Cancer
- Lung Cancer
- Other Cancer
- Pancreatic Cancer
- Stomach Cancer
- Bowel Cancer
- Breast Cancer (Secondary)
- Liver Cancer
- Oesophageal Cancer
- Ovarian Cancer
- Prostate Cancer

Key Assessment Insights

All Validated Patients, All Assessments: 22 September 2020 - 29 March 2021



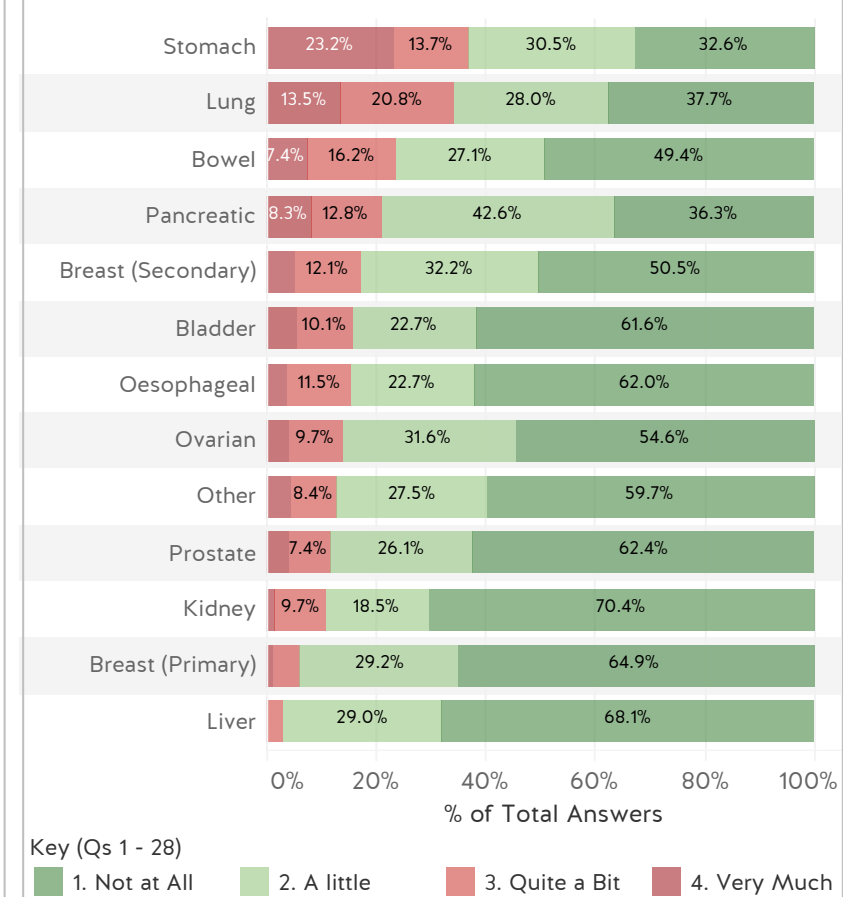
Total Assessments By Cancer Type

Breast (Primary)	Bladder	Bowel	Breast (Secondary)	Kidney	Liver	Lung	Oesophageal	Other	Ovarian	Pancreatic	Prostate	Stomach	Total
6	17	17	503	31	27	27	28	427	47	37	287	26	1,480

Mean Scores By Condition

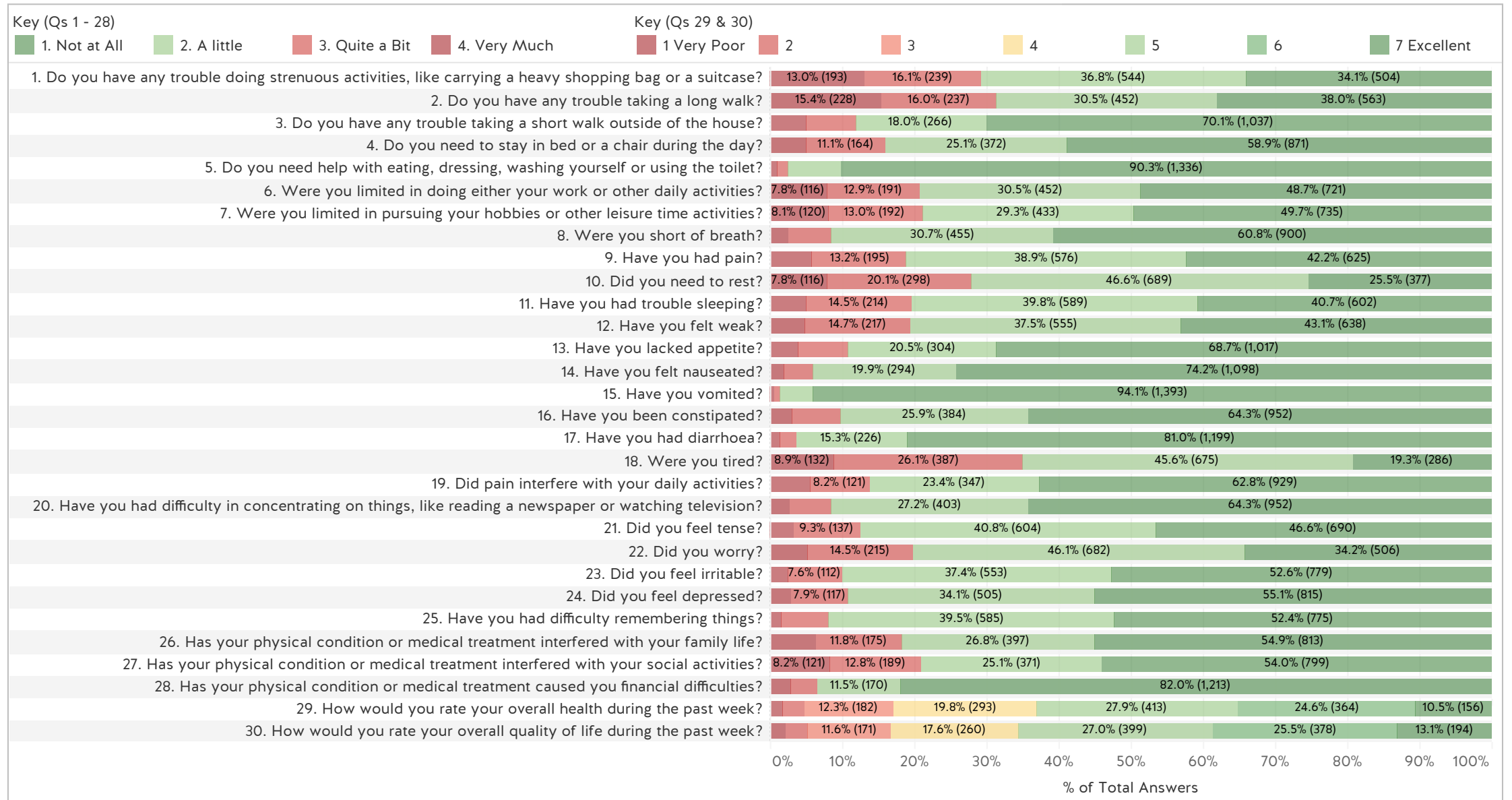


EORTC QLQ-C30 Response Summary



EORTC QLQ-C30 - Response Detail

All Validated Patients, All Assessments: 22 September 2020 - 29 March 2021



Source: Extract from MCO Data Visualisation Package. Analytics data only for patients validated by a BSUH hospital staff member.

Thank you 😊



MY CLINICAL OUTCOMES

REMOTE
OUTCOMES
MONITORING
TO IMPROVE
PATIENT CARE

www.myclinicaloutcomes.com



tim@myclinicaloutcomes.com

[@t1mwilliams](https://twitter.com/t1mwilliams)

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