Greater Manchester Personalised Care for Cancer Workshop

GMCA GREATER MANCHESTER COMBINED AUTHORITY

NHS in Greater Manchester

Greater Manchester Cancer

What does personalised care mean to you?

Welcome

Tony Collier BEM
Service User - GM Cancer

Tony Collier BEM

~~Service User~~

Patient Representative - GM Cancer

Personalised Care Workshop

My Story:

- Diagnosis
- Prognosis
- Outcome to date
- Control

Personal Care - Definitions

Personalised cancer care means providing patients with access to care and support that meets their **individual needs** – from the moment they receive their cancer diagnosis – so that they can live as **full, healthy and active** a life as possible.

Personal Care - Definitions

Personalised Care and Support Planning helps people living with cancer to take an active and **empowered** role in the way their care is planned and delivered, with interventions and care tailored around the things that matter most to them.

Personal Care - Definitions

Personalised care means people have **choice** and **control** over the way their care is planned and delivered.

It is based on 'what matters' to them and their individual strengths and needs.

Personal Care - Definitions

Personalised care represents a new relationship between people, professionals and the health and care system. It provides a positive **shift in power** and decision making that enables people to **have a voice**, to be heard and be connected to each other and their communities.

Personalised Care-Key Words

- Individual Needs
- Full, healthy and active
- Empowered
- Choice
- Control
- Shift in Power
- Have a Voice

What is it?

Programme to help people newly diagnosed to

- Prepare for treatment
- Cope better with treatment
- Recovery more quickly
- Change lifestyles permanently to include exercise

Co-designed

Patient driven

Patient focussed

Superb example of personalised care tailored for the patient

A delight to be part of the “dream team”

5K YOUR WAY
MOVE AGAINST CANCER

What is it?

Cancer support group encouraging exercise

Linked to parkrun

Final Saturday of the month

Support group with a difference

Coffee morning with a difference

Throughout GM

Natural extension of P4C

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Personalised Care for Cancer

Where are we now?

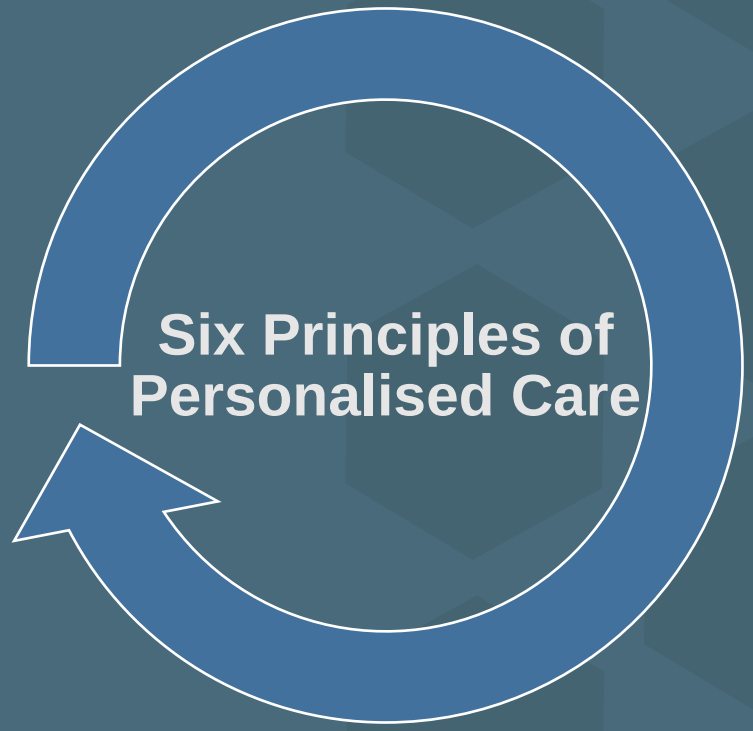
22nd June 2022

Dr Lydia Briggs
Clinical Lead for Personalised Care

Dr Steve Churchill
Primary Care Clinical Lead for Personalised Care

What is Personalised Care?

- Patient choice
- Social prescribing and community-based support
- Shared decision-making



- Personalised care and support planning
- Patient activation and supported self-management
- Personal health budgets

Personalised care is based on *'what matters'* to people and their individual strengths and needs

Greater Manchester Cancer

Why Personalised Care?

Financially less well off **83%**

Loneliness **25%**

Anxiety **10%**

Depression **40%**

Physical symptoms affecting QoL **25%**

Why Personalised Care?

Financially less well off 83%

"Fallen off a cliff"

"Slump"

Loneliness 25%

"Isolating"

Anxiety 10%

"Alone"

Depression 40%

Physical symptoms affecting QoL 25%

The National Context for Cancer

- The history of Personalised Cancer Care
- Living With and Beyond Cancer
- NHS Long Term Plan (2019)
- NHS Operational Planning Guidance 2022/2023

Personalised Cancer Care Aims and Metrics

- Personalised Stratified Follow-up
- Personalised Care and Support Planning
- Health and Wellbeing Information and Support
- Treatment Summaries
- Cancer Care Reviews

Approach to Personalised Care in GM

- Bimonthly steering group
- Four working groups with cross-cutting themes
- Focus on quality

Work Undertaken To Date

- All Trusts live with Breast PSFU
- Colorectal, Prostate, Endometrial – Protocols signed off, plus additional 5 test sites
- Treatment Summaries ready to use in all but Prostate
- InfoFlex Remote Monitoring System
- Personalised Care Improvement Facilitators

The Future of Personalised Care

- Expanding the remit of Personalised Cancer Care
- What's missing?

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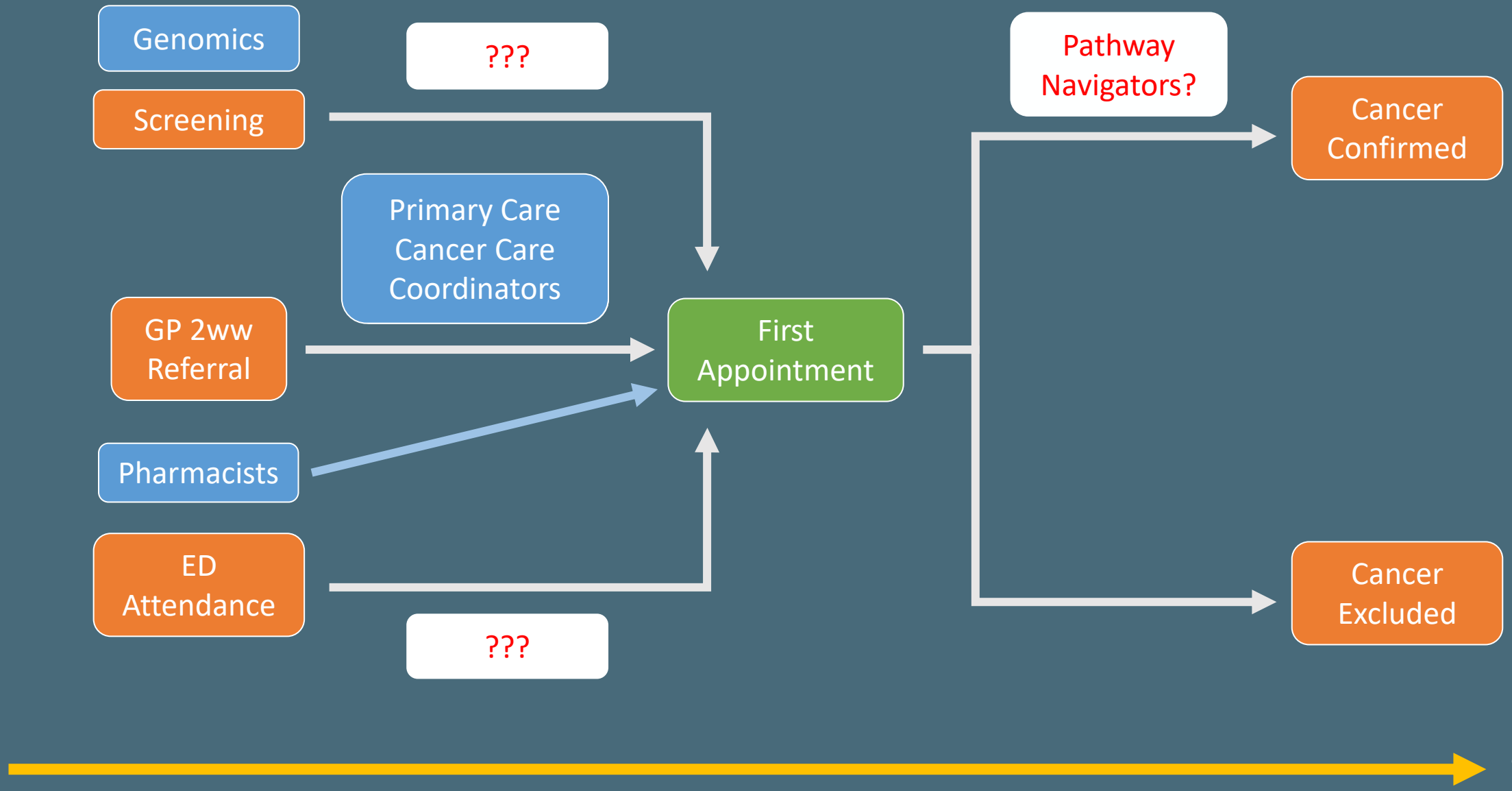
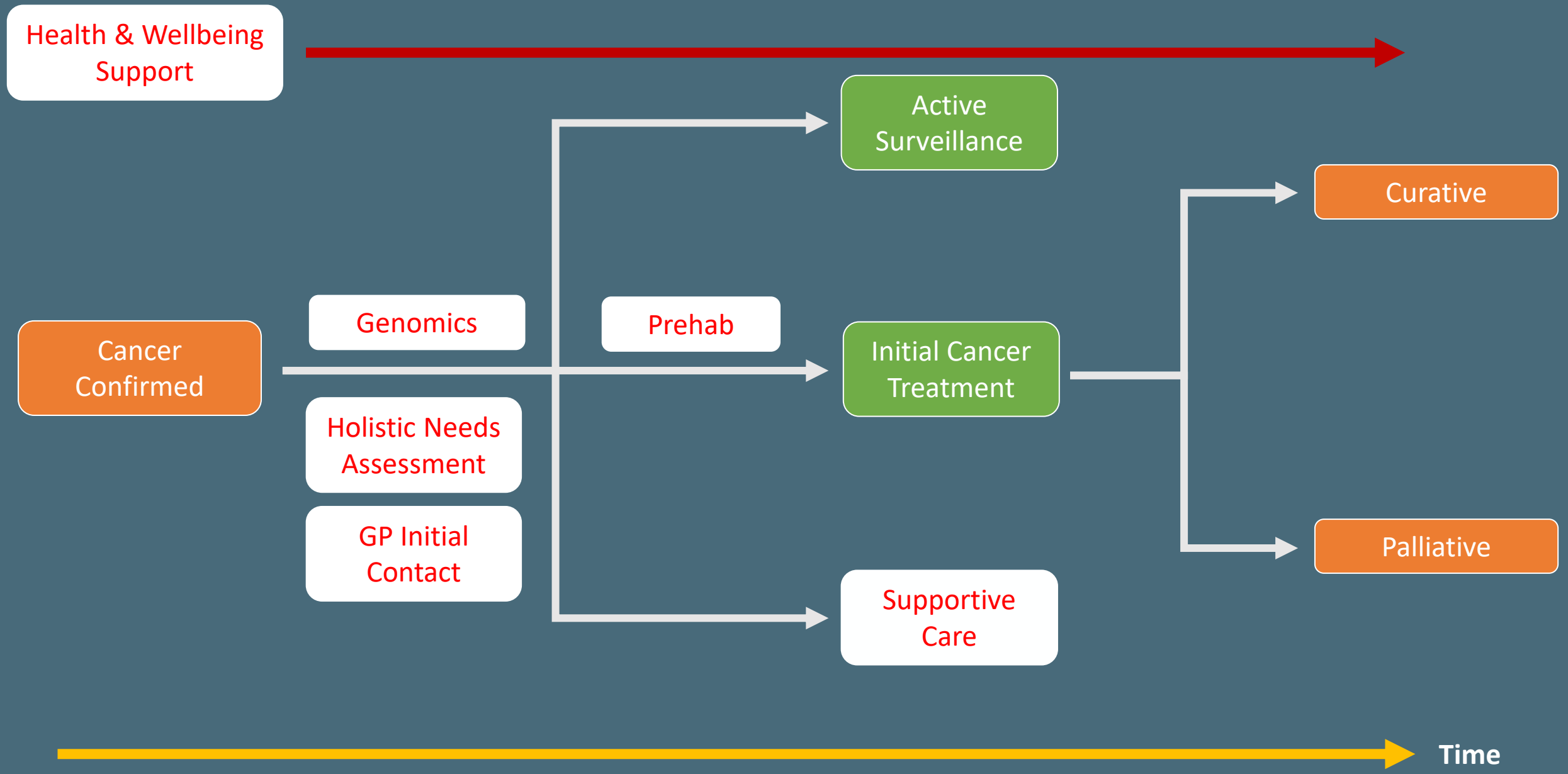
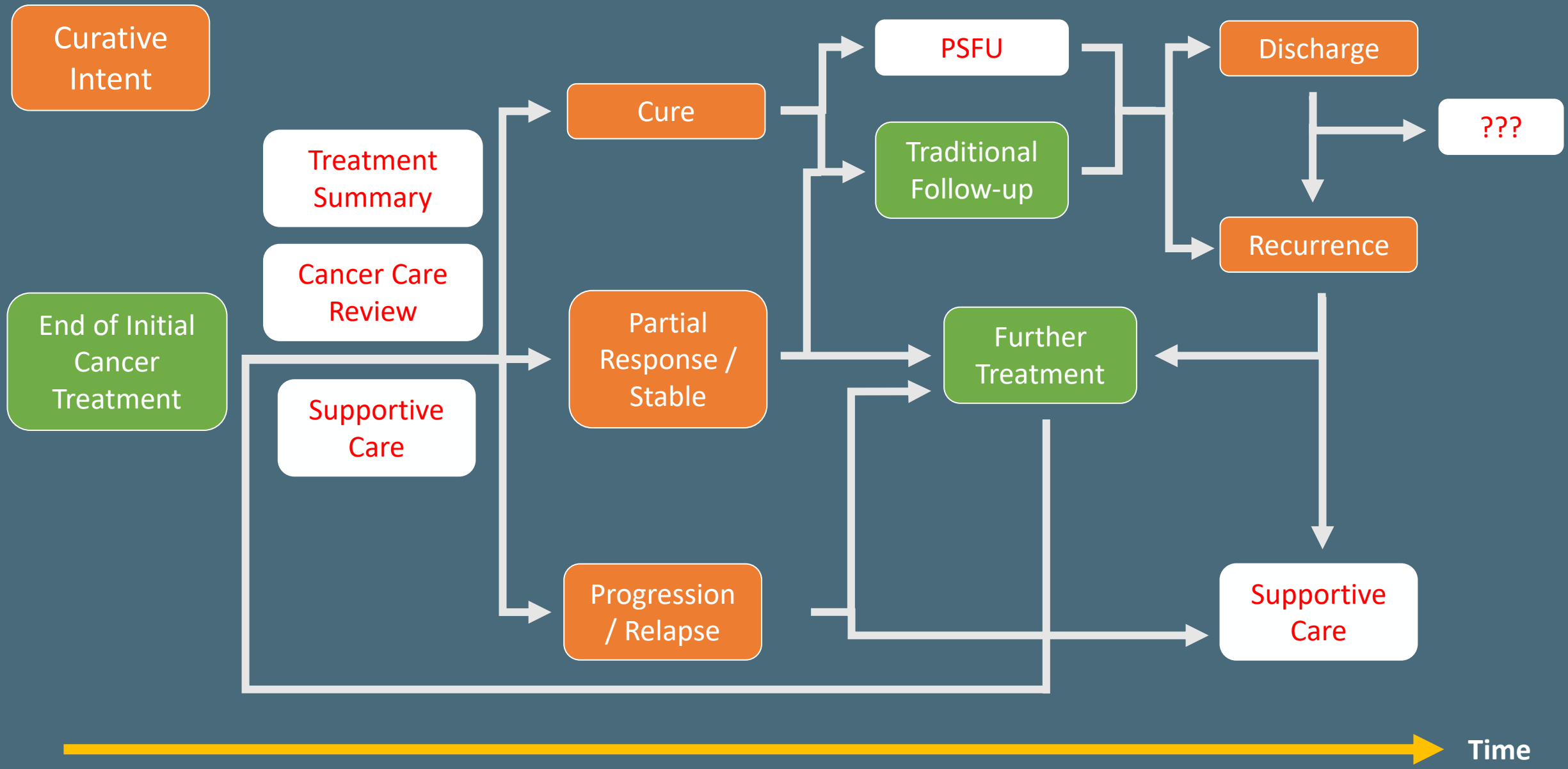
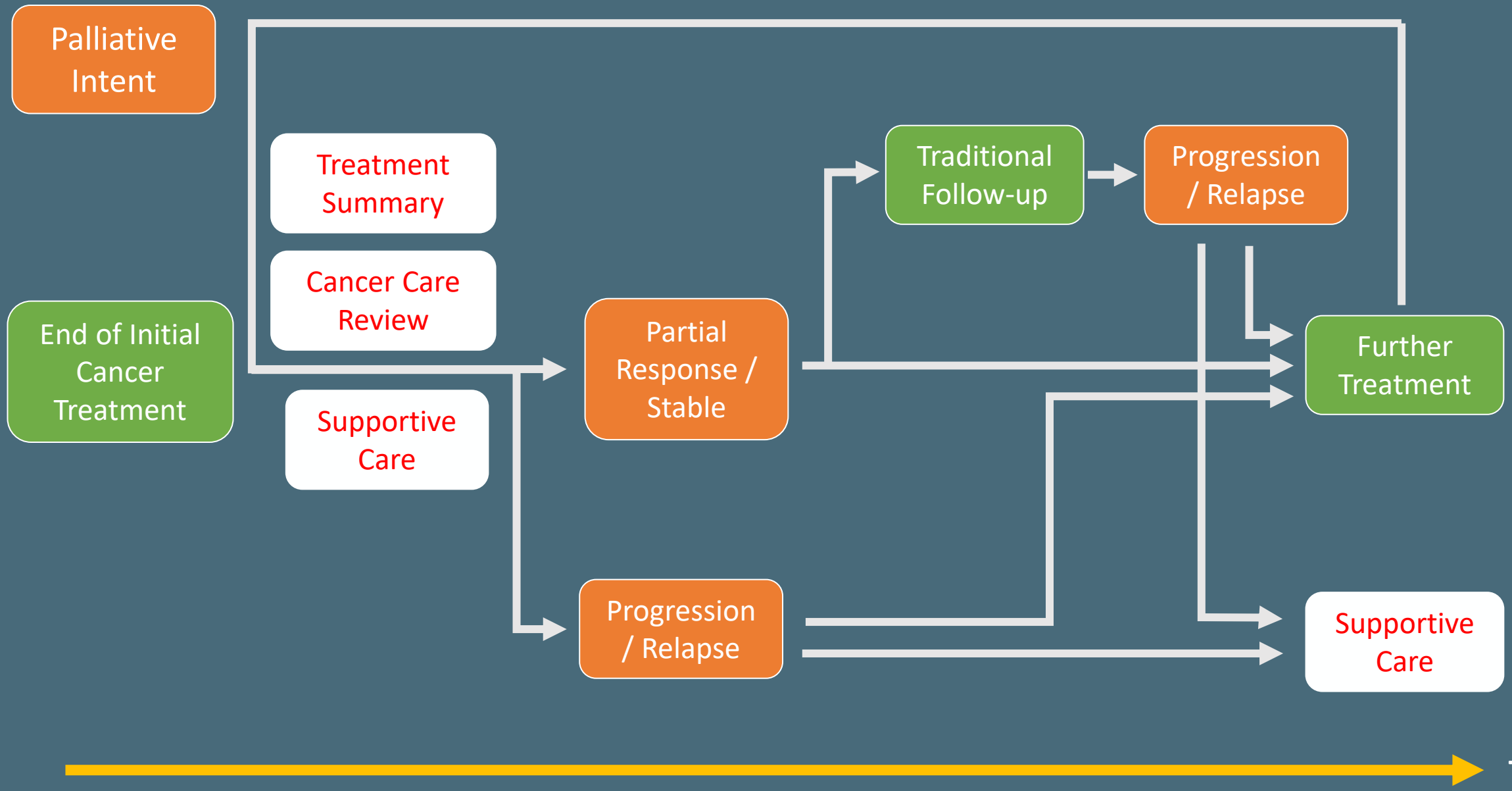
Where can we make a difference?


Genomics
Screening
???
Primary Care Cancer Care Coordinators
GP 2ww Referral
Pharmacists
ED Attendance
???
First Appointment
Pathway Navigators?
Cancer Confirmed
Cancer Excluded
Time


Health & Wellbeing Support
Active Surveillance
Curative
Cancer Confirmed
Genomics
Prehab
Initial Cancer Treatment
Holistic Needs Assessment
GP Initial Contact
Supportive Care
Palliative
Time


Curative Intent
Treatment Summary
Cancer Care Review
End of Initial Cancer Treatment
Supportive Care
Cure
Partial Response / Stable
Progression / Relapse
PSFU
Traditional Follow-up
Discharge
???
Recurrence
Further Treatment
Supportive Care
Time


Palliative Intent
Treatment Summary
Cancer Care Review
End of Initial Cancer Treatment
Supportive Care
Partial Response / Stable
Traditional Follow-up
Progression / Relapse
Further Treatment
Progression / Relapse
Supportive Care
Time

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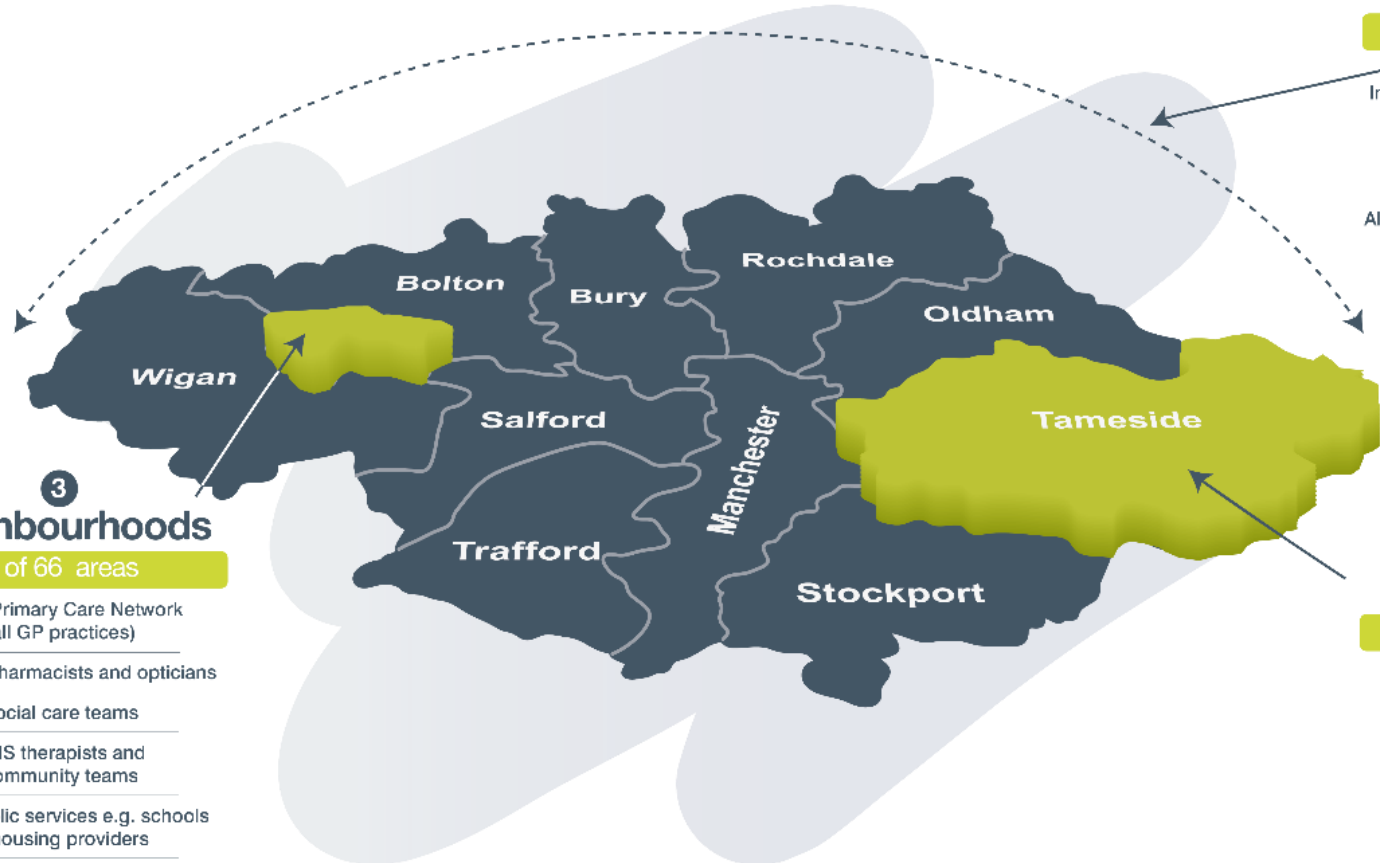
Your thoughts

Innovation

Rhidian Bramley, Diagnostic & Digital / Innovation Clinical Lead. Louise Lawrence, Innovation Programme Manager. June 22

Operating at 3 levels to

- Help the NHS to support broader social and economic development
- Improve population health and healthcare
- Tackle unequal outcomes and access
- Enhance productivity and value for money



1 Across Greater Manchester system

2.8 million people

- Greater Manchester Integrated Care Partnership Board
- NHS Greater Manchester Integrated Care
- Provider Collaboratives - All NHS Trusts (Provider Federation Board) and all Primary Care (Primary Care Board)
- Greater Manchester Combined Authority
- Health Innovation Manchester
- Social care providers
- Voluntary, community and social enterprise sector

2 Local place

1 of 10 places

- Local Integrated Care Partnership Board
- Council
- Social care providers
- NHS Trust(s)
- Primary Care
- Healthwatch
- Voluntary, community and social enterprise sector

3 Neighbourhoods

1 of 66 areas

- Local Primary Care Network (all GP practices)
- Dentists, pharmacists and opticians
- Social care teams
- NHS therapists and community teams
- Other public services e.g. schools & housing providers
- Voluntary, community and social enterprise sector

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Digital and Innovation Board

- ✓ Innovation Programme Manager role partnered with:
  - Health Innovation Manchester
  - Macmillan Cancer Support
  - GM Cancer
- ✓ Strategic alignment with GM NHS and Industrial partners.
- ✓ Transparency across the system interconnecting original silo ways of working.
- ✓ Co-ordination and support to influence innovative within:
  - Primary Care – Faster Diagnosis Framework
  - Artificial Intelligence in Research / Patient Trials
  - Mixed Reality in theorised scholarship for education & workforce
  - Alignment between GMCR, InfoFlex, Health and Wellbeing.

Health Innovation Manchester

MACMILLAN CANCER SUPPORT

Greater Manchester Cancer

What does it all mean?

1. Introducing partners
2. Enabling networking
3. Reducing silo working
4. Bringing transparency to the system
5. Support to get innovation to project phase
6. Help make the case for adoption of innovation

Innovation within Personalised Care

InfoFlex
Breast patient portal pilot linking to patient information and signposting and tracking of appropriate information.

EXi
Digital exercise prescription for cancer pathway patients in Greater Manchester and building from learning within EMBRaCE GM wearables technology and Prehab4Cancer.

CareLoop / By Your Side / Syndi
Health and wellbeing portals including mental health support.

IQVIA / UpSMART / Determine / Ancora
The Efficacy of AI in Matching Patients to Clinical Trials - personalised in finding the right trial, at the right time and right place.

InfoFlex

My Portal

Welcome testpatient1 ▾ Logout

My Dashboard | My Messages | Treatment Summary & Other Documents

Health & Wellbeing Information & Support

My Dashboard

5 Year Mammogram Plan

	Planned	Actual
Review 1	01/02/2016	10/02/2016
Review 2	01/02/2017	12/02/2017
Review 3	01/02/2018	09/12/2020
Review 4	01/02/2019	11/02/2022
Review 5	01/02/2020	

You will be called for a mammogram every year for 5 years following diagnosis or until your 50th birthday, unless you have had bilateral mastectomies in which case you don't need a mammogram. Please do not attend for your annual national breast screening appointment during this time.

Menopausal status: Postmenopausal

Other sources of support available are detailed on the 'Health and Wellbeing Information and Support' page

Results

Latest Test	Date Reviewed	Outcome
Mammogram	11/02/2022	Left M1 (Normal)
DEXA	11/02/2022	test
MRI	11/02/2022	Left MR3 (Needs further assessment)
CT	11/02/2022	test
Ultrasound	11/02/2022	Left U3 (Needs further assessment)
Bone Scan	11/02/2022	test
Bloods	11/02/2022	test

Please refer to your Treatment Summary for further information around your results

NHS
Tameside and Glossop Integrated Care
NHS Foundation Trust

For GP use only: please code this letter as cancer treatment completed:

Snomed code 413737006		Cancer hospital treatment completed (situation)
8BCF.00	Read	Cancer hospital treatment completed

Jenny Jones,
15 My Street,
My Town,
ZZ9 9ZZ

Tameside General Hospital
Fountain Street,
Ashton-Under-Lyne,
Ashton-Under-Lyne,
OL6 9RW

Date of Birth: 01/01/1975
NHS No: 195 498 7986
Hospital No: COSD_BA_01

Dear Jenny Jones

Thank you for attending your end of treatment review appointment.

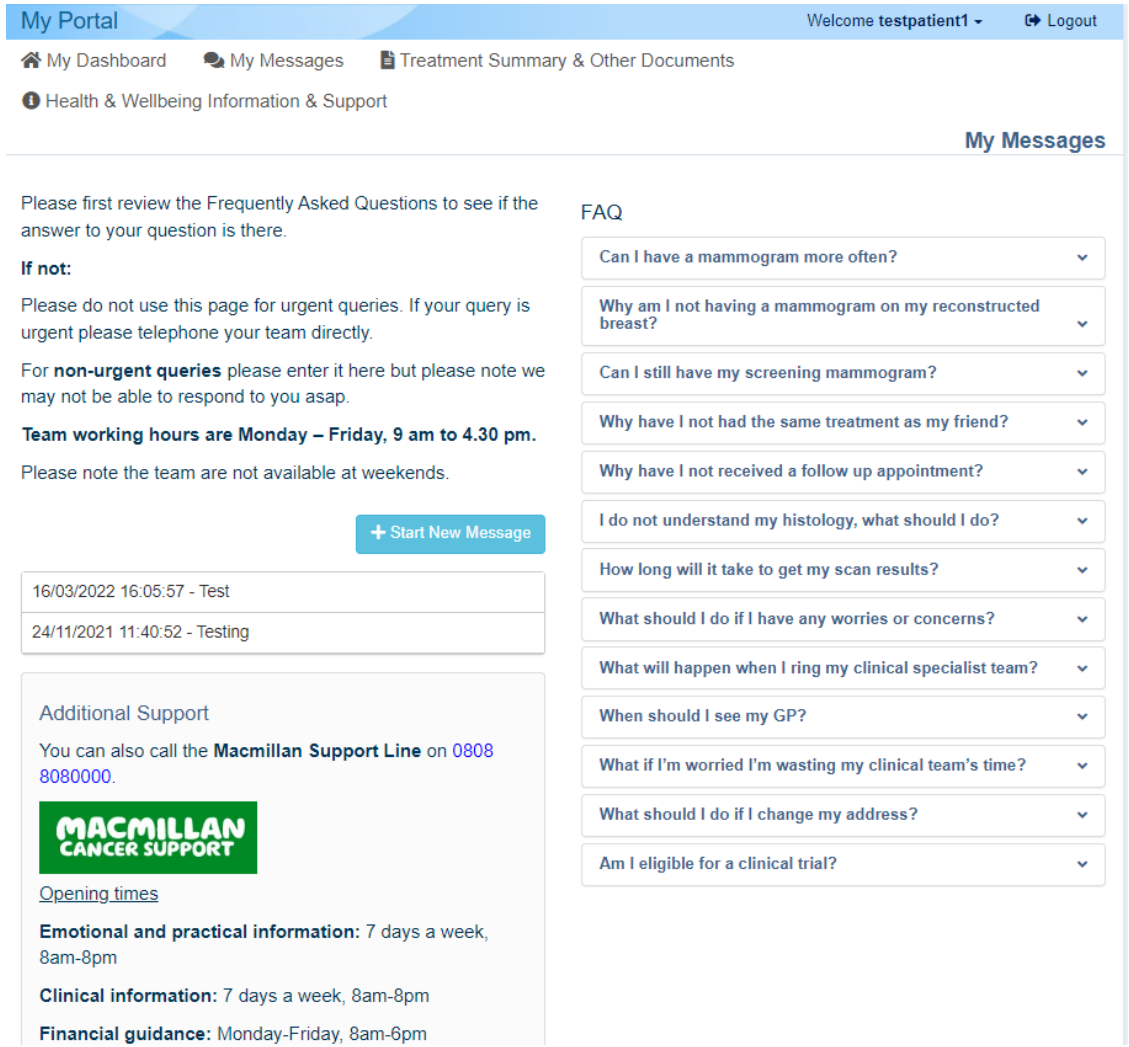
Please find below the summary of your diagnosis, treatment and the ongoing management plan that we discussed. A copy of this has also been sent to your GP. Everyone's management plan is different, as it is based on their diagnosis and treatment. This plan is specific to your needs.

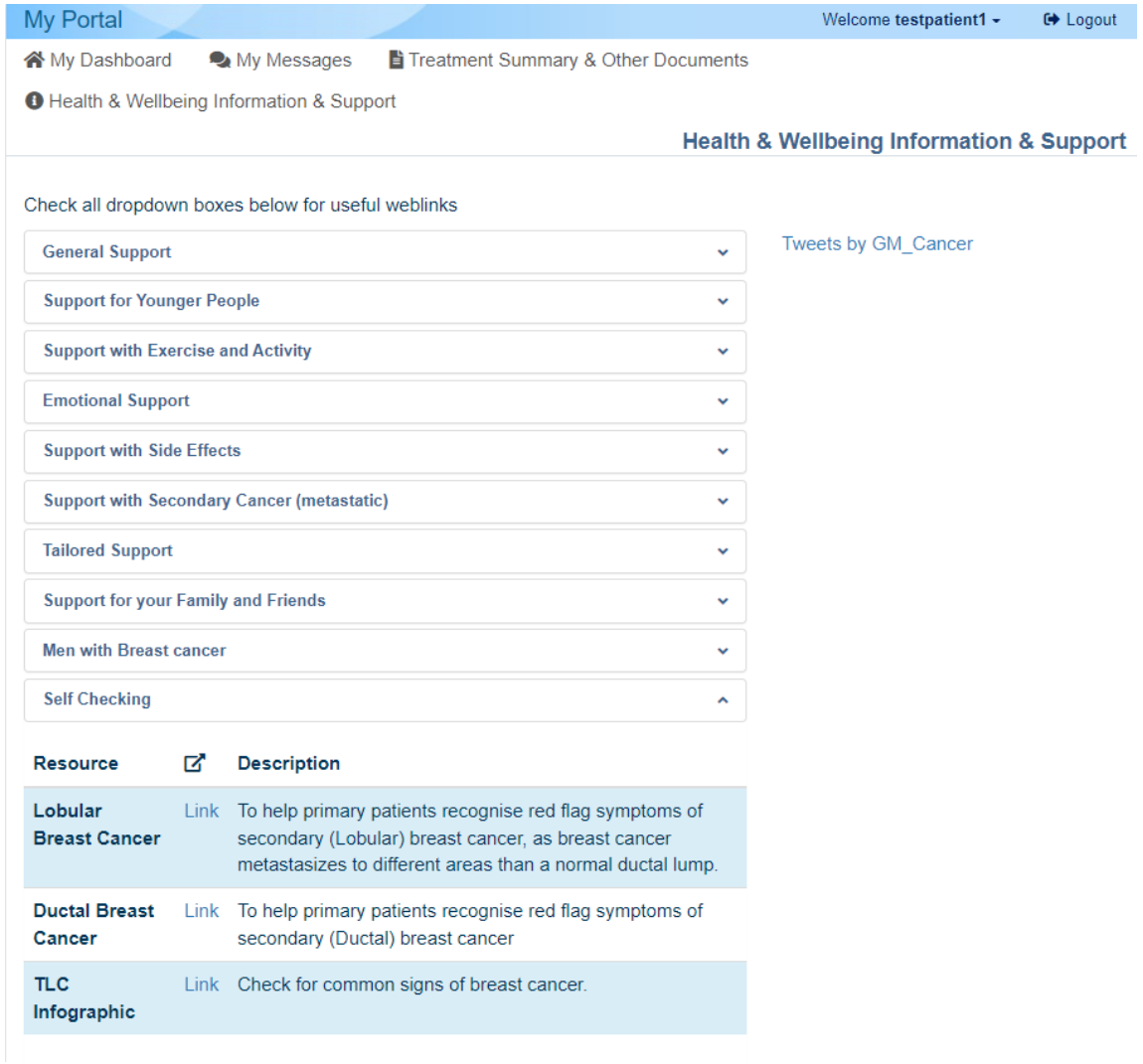
Our service has been designed to increase your knowledge and wellbeing and to help you move forward now that your initial treatment has finished. Please remember that if you do feel anxious or would like further advice at any time you are welcome to contact your Breast Care Nurse who can recommend a wide range of resources and services that have been designed to help you.

Key Contact Numbers:

Breast Care Nurse	**Name:**	Sarah Taylor
	Contact Number:	
Colorectal Cancer Clinical Nurse Specialist	**Name:**	Marie Shaw
	Contact Number:	

InfoFlex

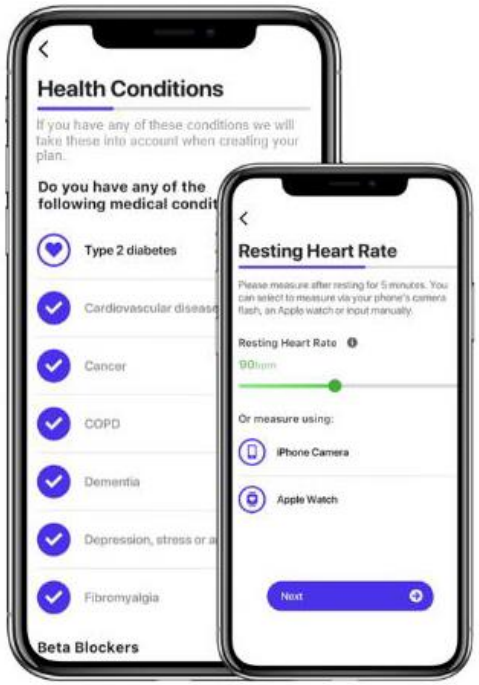

My Portal
Welcome testpatient1
Logout
My Dashboard
My Messages
Treatment Summary & Other Documents
Health & Wellbeing Information & Support
My Messages
Please first review the Frequently Asked Questions to see if the answer to your question is there.
If not:
Please do not use this page for urgent queries. If your query is urgent please telephone your team directly.
For non-urgent queries please enter it here but please note we may not be able to respond to you asap.
Team working hours are Monday – Friday, 9 am to 4.30 pm.
Please note the team are not available at weekends.
+ Start New Message
16/03/2022 16:05:57 - Test
24/11/2021 11:40:52 - Testing
Additional Support
You can also call the Macmillan Support Line on 0808 8080000.
MACMILLAN CANCER SUPPORT
Opening times
Emotional and practical information: 7 days a week, 8am-8pm
Clinical information: 7 days a week, 8am-8pm
Financial guidance: Monday-Friday, 8am-6pm
FAQ
Can I have a mammogram more often?
Why am I not having a mammogram on my reconstructed breast?
Can I still have my screening mammogram?
Why have I not had the same treatment as my friend?
Why have I not received a follow up appointment?
I do not understand my histology, what should I do?
How long will it take to get my scan results?
What should I do if I have any worries or concerns?
What will happen when I ring my clinical specialist team?
When should I see my GP?
What if I'm worried I'm wasting my clinical team's time?
What should I do if I change my address?
Am I eligible for a clinical trial?


My Portal
Welcome testpatient1
Logout
My Dashboard
My Messages
Treatment Summary & Other Documents
Health & Wellbeing Information & Support
Health & Wellbeing Information & Support
Check all dropdown boxes below for useful weblinks
General Support
Support for Younger People
Support with Exercise and Activity
Emotional Support
Support with Side Effects
Support with Secondary Cancer (metastatic)
Tailored Support
Support for your Family and Friends
Men with Breast cancer
Self Checking
Tweets by GM_Cancer
Resource
Description
Lobular Breast Cancer
Link
To help primary patients recognise red flag symptoms of secondary (Lobular) breast cancer, as breast cancer metastasizes to different areas than a normal ductal lump.
Ductal Breast Cancer
Link
To help primary patients recognise red flag symptoms of secondary (Ductal) breast cancer
TLC Infographic
Link
Check for common signs of breast cancer.

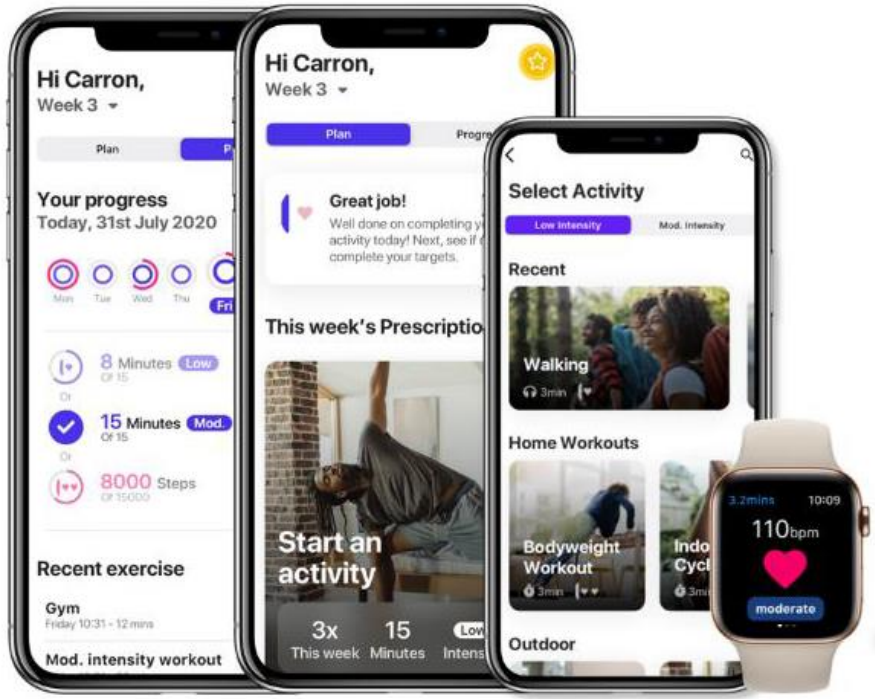
Digital Exercise Prescription

Personalised exercise prescription

Clinically validated, digitally delivered for people with or at-risk of chronic conditions



Intelligent on-boarding

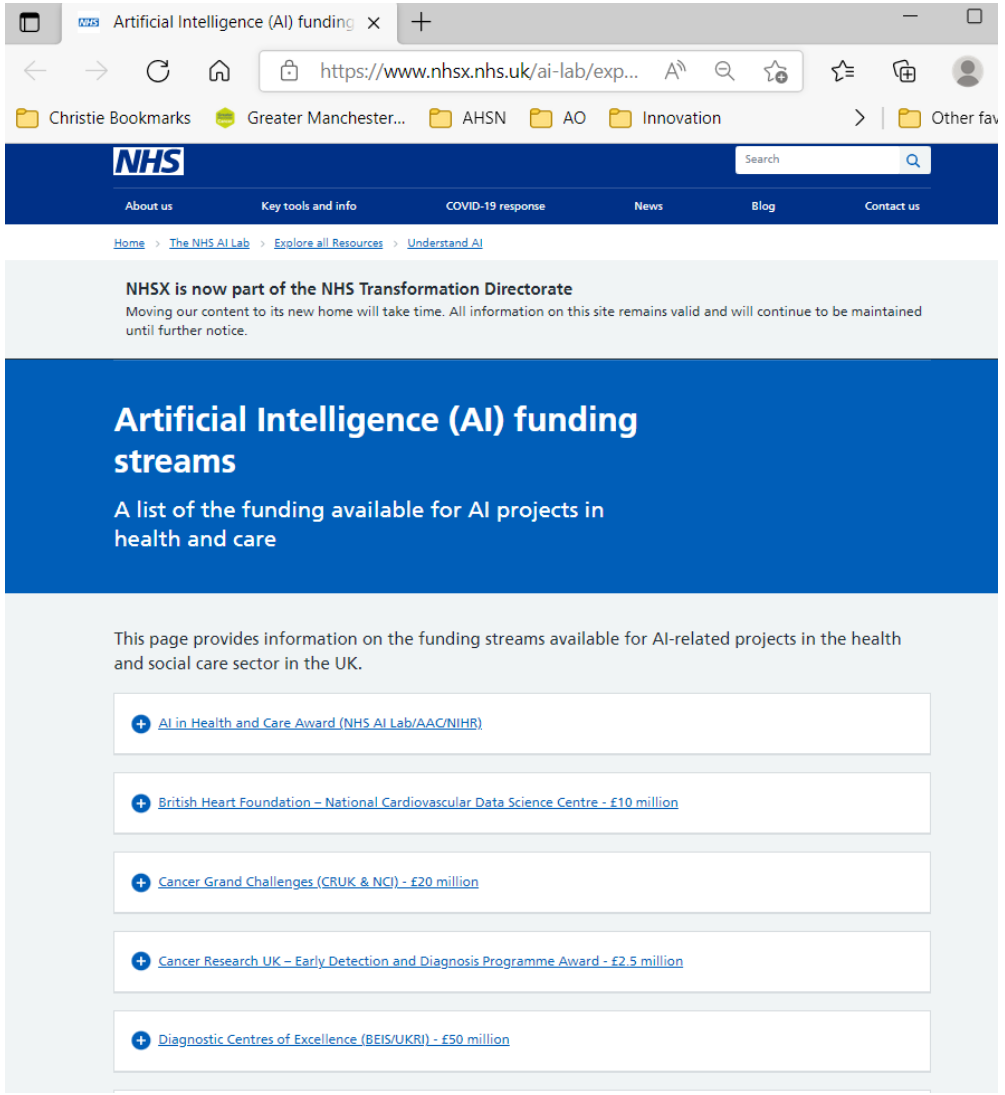


Activity prescription,
Intensity guided bespoke exercise content,
Optional Apple Watch integration,
Health tracking

Health and activity data portal

Horizon Scanning

- Cancer allocation
- SBRI
- NIHR
- AI
- NHSX
- CPI
- Momentum Fund
- Innovate UK…



Health Innovation Manchester

MACMILLAN CANCER SUPPORT

Greater Manchester Cancer

We need from you?

1. Let us know about innovation ideas.

2. Come to us if you want to explore an opportunity.
3. Be open to opportunities within the system.
4. Let us help you get there but then carry this onward to implementation, evaluation, BAU.

Health Innovation Manchester

MACMILLAN CANCER SUPPORT

Greater Manchester Cancer

Q&A

Rhidian.Bramley@nhs.net
louise.lawrence1@nhs.net

Personalised Care for Cancer Workshop
Genomics in Personalised Care

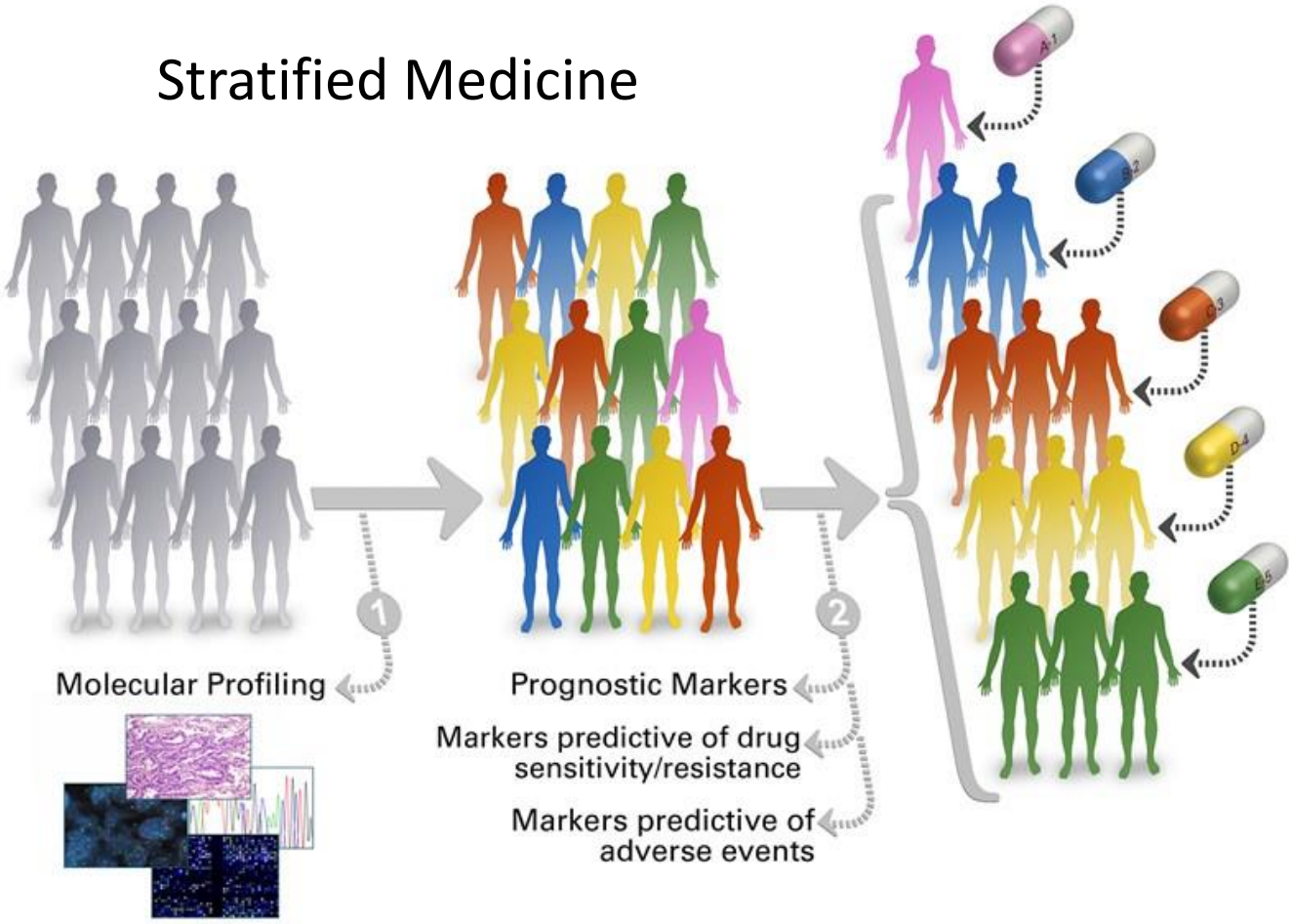
Dr Matthew Krebs FRCP PhD

Clinical Senior Lecturer in Experimental Cancer Medicine, The University of Manchester
Honorary Consultant in Medical Oncology, The Christie NHS Foundation Trust
Cancer Genomics Clinical Lead, North West Genomics Laboratory Hub

22 JUN 2022

Precision Medicine

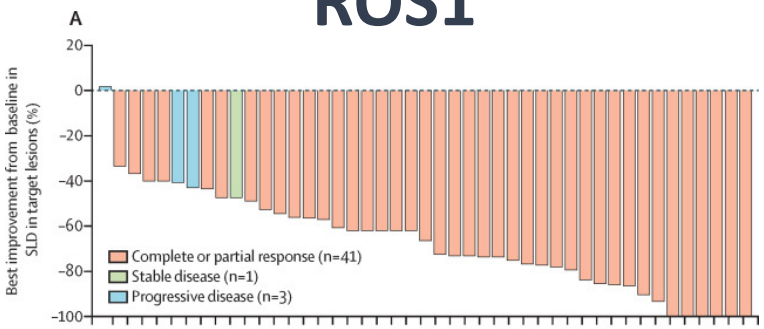
Stratified Medicine



Personalised Medicine

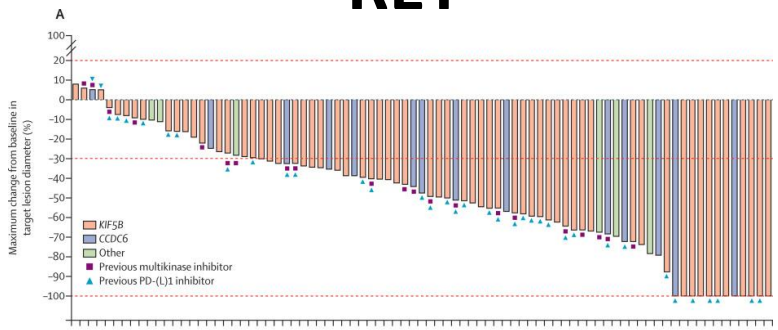
LUNG CANCER

ROS1

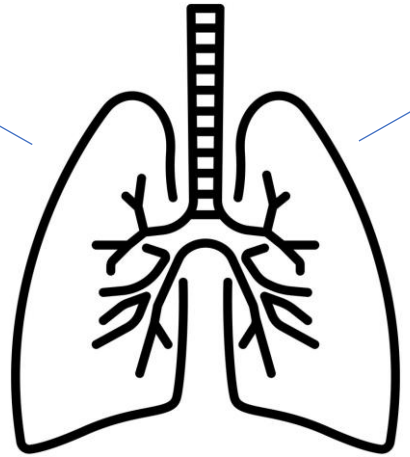


Drilon et al. Lancet Oncology, Dec 2019

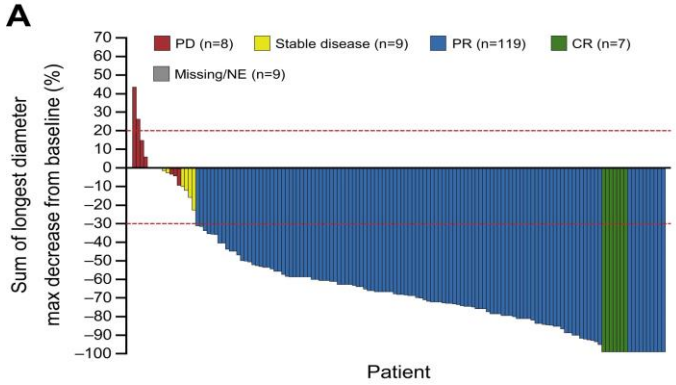
RET



Gainor et al. Lancet Oncol , July 2021

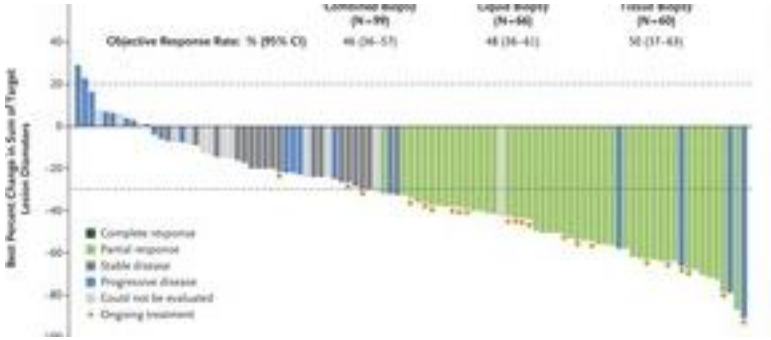


ALK



Camidge et al. JT0 (14), July 2019

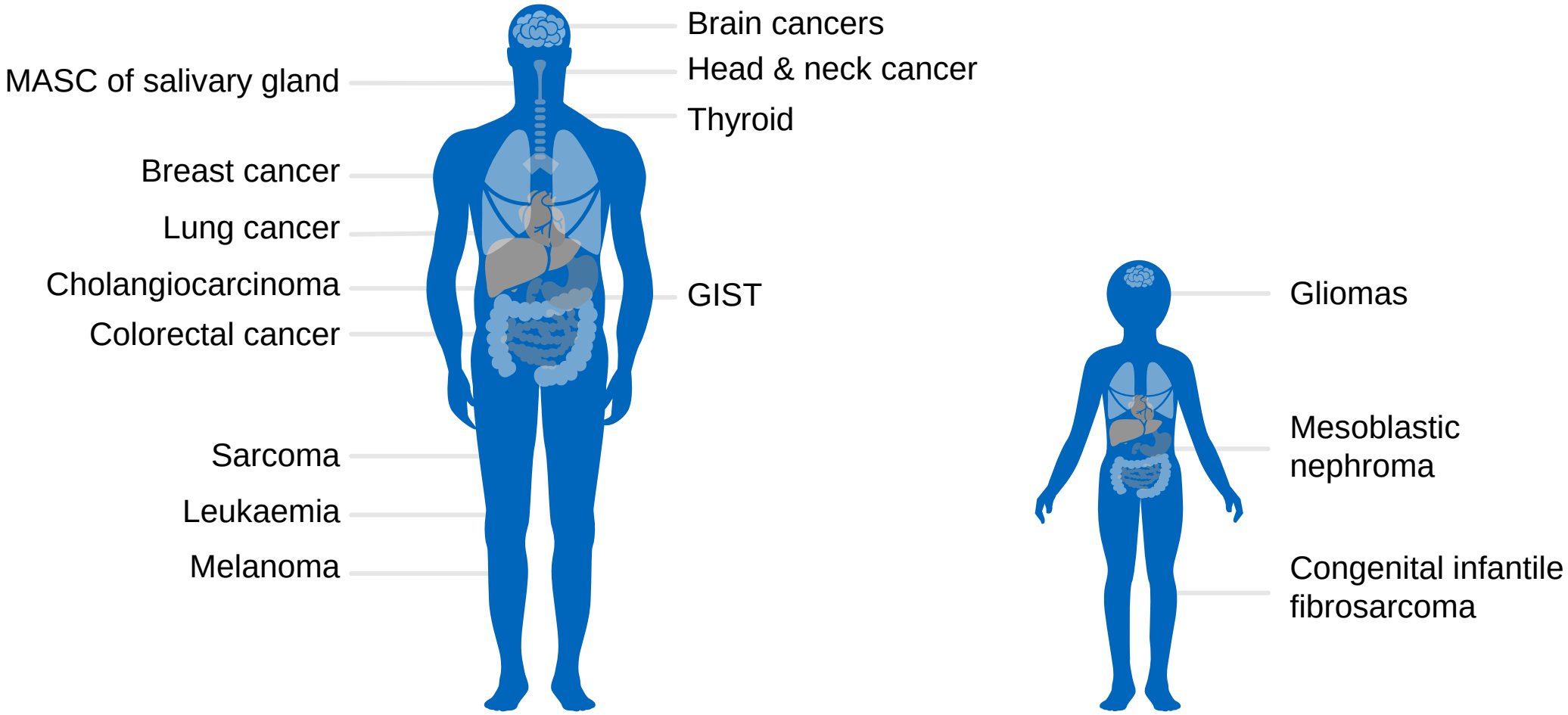
MET Exon 14



Paik et al. NEJM, Sep 2020

TUMOUR AGNOSTIC GENOMIC ALTERATIONS - NTRK

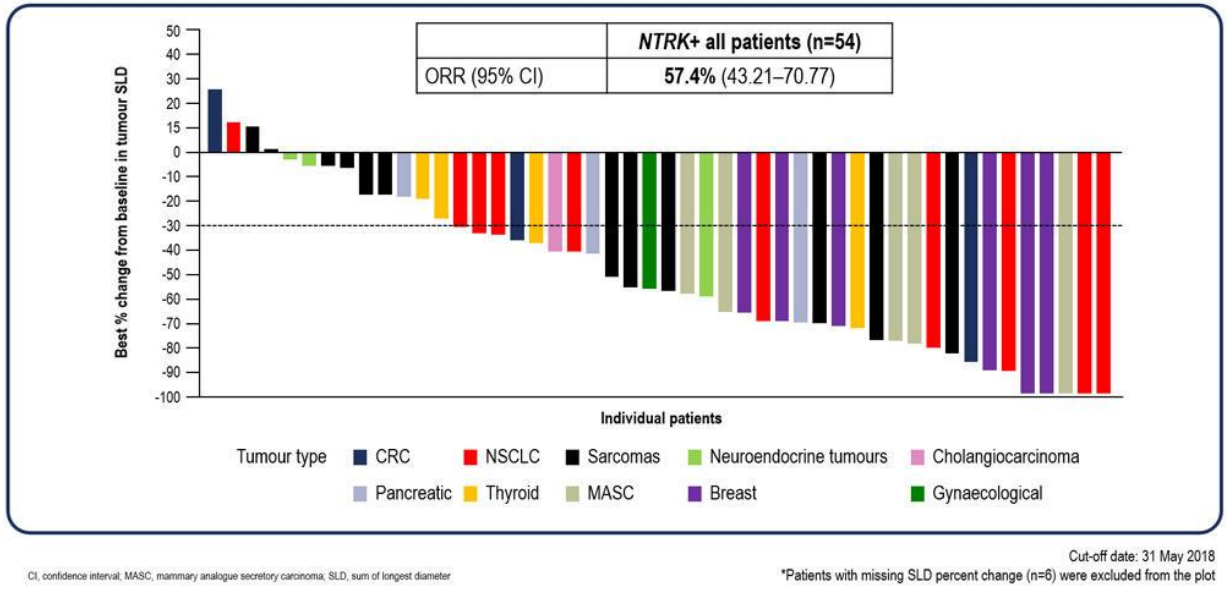
NTRK fusions have been identified in >25 tumour types



TRK INHIBITORS

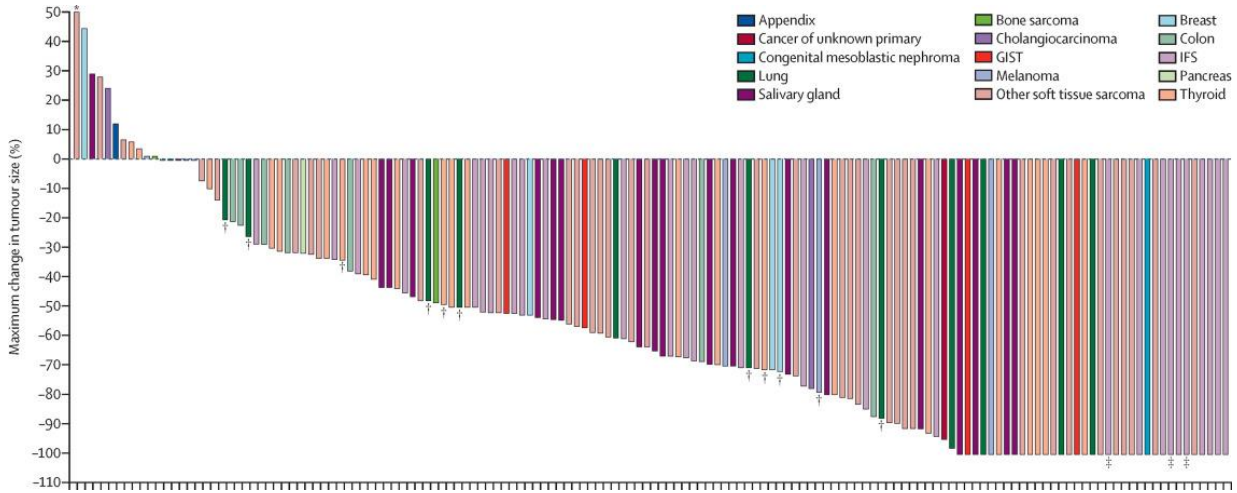
NICE

Entrectinib



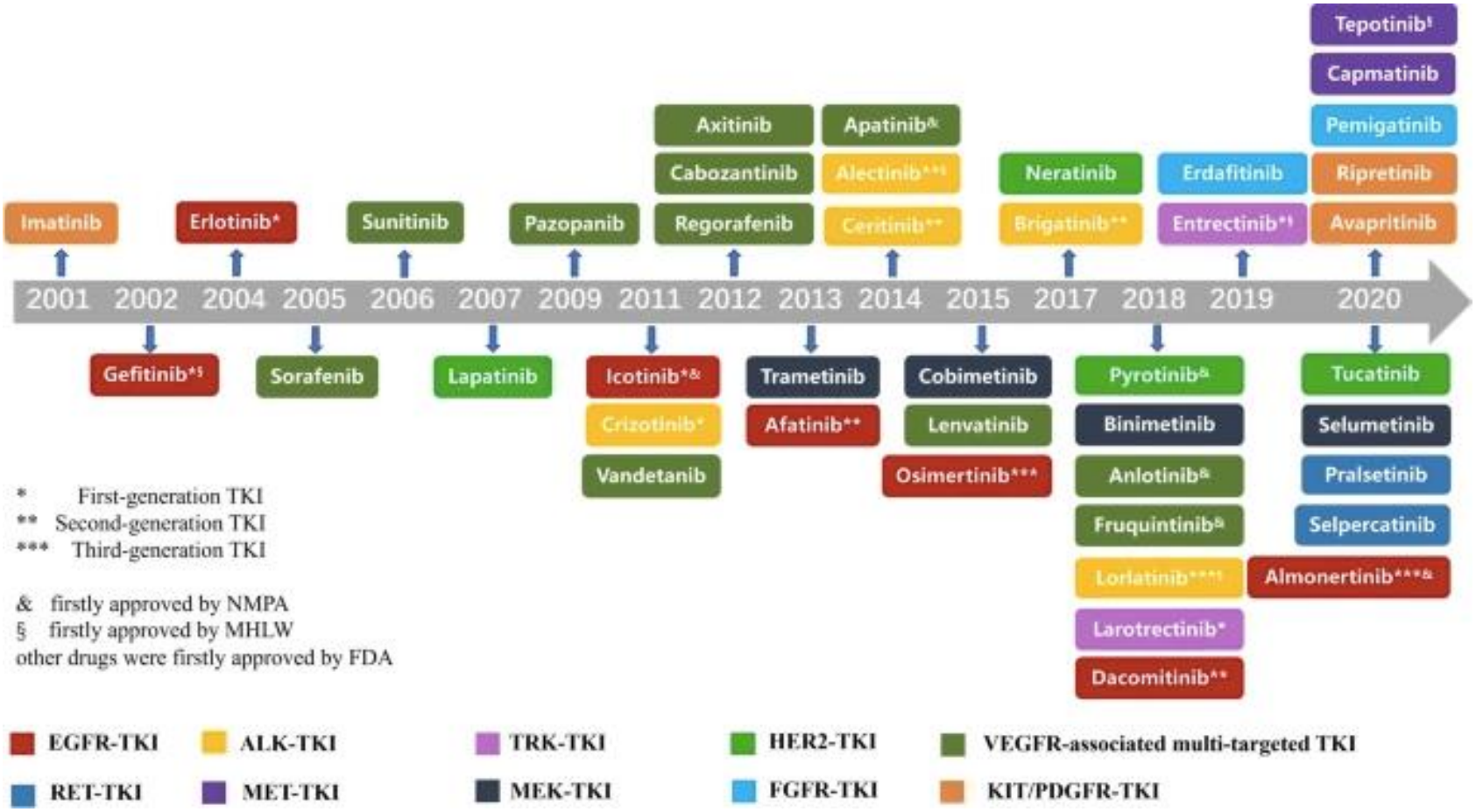
Drilon et al. Lancet Oncology 21(2):261-270, Feb 2020

Larotrectinib



Hong et al. Lancet Oncology 21(4):531-540, Apr 2020

NEW DRUGS AND TARGETS EMERGING EVERY YEAR



Huang et al. Journal of Haematology and Oncology, Oct 2020

TESTING PATIENTS FOR GENOMIC ALTERATIONS IS ESSENTIAL TO OPTIMISE PATIENT CARE/ CLINICAL TRIAL OPPORTUNITIES

EMERGING TARGETS AND TUMOUR AGNOSTIC INDICATIONS MEAN LARGE PANEL GENE TESTING IS INDICATED

WHOLE GENOME SEQUENCING

The NHS Long Term Plan

NHS LONG TERM PLAN

- To be the first national health care system to offer whole genome sequencing as part of routine care.
- To sequence 500,000 whole genomes by 2023/24 and help transform healthcare for maximum patient benefit
- Extended access to molecular diagnostics and offer genomic testing routinely to all people with cancer.
- Early detection and treatment of high-risk conditions
- Linking and correlating genomic data to help provide new treatments, diagnostic approaches and help patients make informed decisions about their care.

Jan 2019

NHS ENGLAND GENOMICS MEDICINE SERVICE

- NHSE – Re-procurement of Genetic Laboratory Services to underpin new Genomic Medicine Service – completed 2018
  - Equitable access to genetic testing
  - Work to common national standards, specifications and protocols
  - Give all patients opportunity to participate in research for themselves and to help others
  - Build national knowledge base for real-world data
- Development of **Genomics Test Directory** – Rare Disease and Cancer – latest update 21 April 2022
- Development of National Genomic Medicine Service
  - 7 GLHs – Genomic Laboratory Hubs
  - 7 GMSAs – Genomics Medicine Service Alliances

NHS England

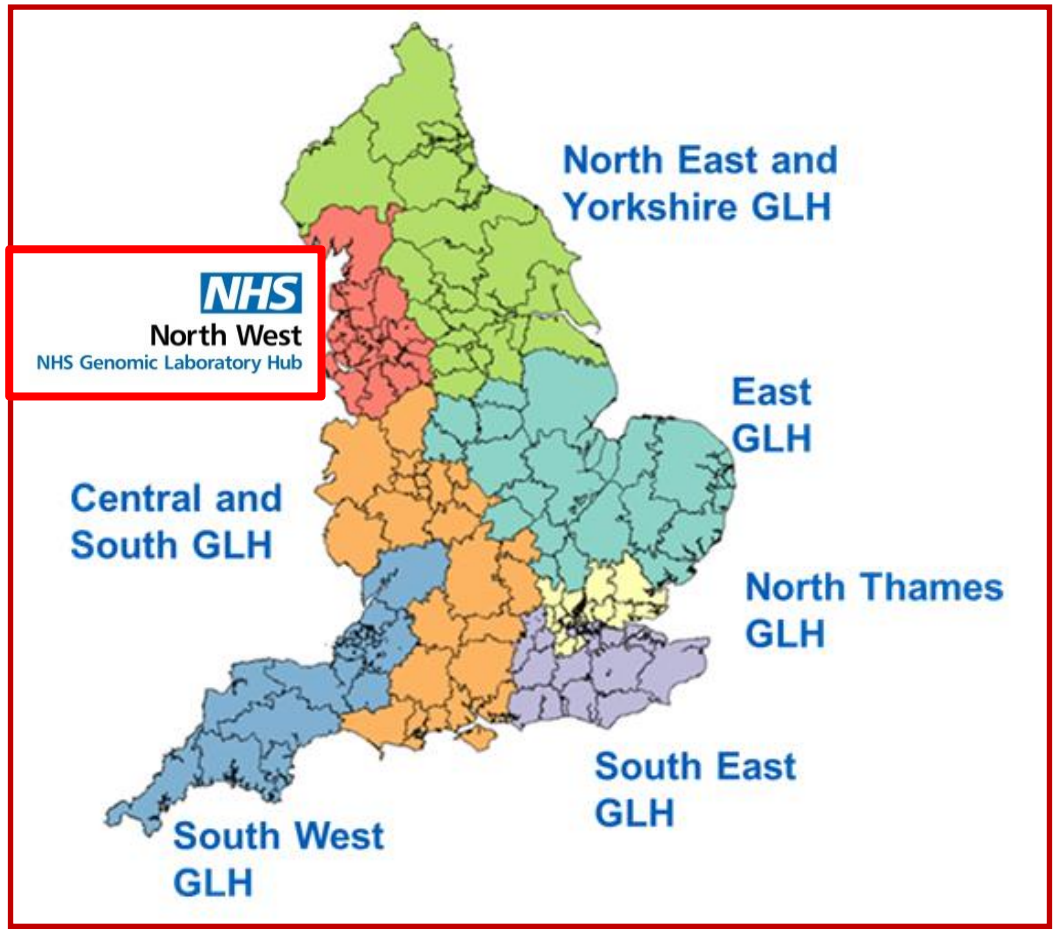
Genomics england

NORTH WEST GENOMIC LABORATORY HUB

Greater Manchester Cancer

Cheshire & Merseyside Cancer Alliance

Healthier Lancashire & South Cumbria | Cancer Alliance



NHS North West NHS Genomic Laboratory Hub

THE NATIONAL GENOMIC TEST DIRECTORY

NHS England

LAST UPDATED 21 APR 2022 https://www.england.nhs.uk/publication/national-genomic-test-directories/

Document

Rare and inherited disease eligibility criteria

PDF 4 MB 391 pages

Summary

This eligibility criteria document supplements the National Genomic Test Directory by setting out which patients should be considered for testing under that indication, and the requesting specialties is a list of the clinical specialties who would be expected to request the test.

Updated 21 April 2022.

Document

National Genomic Test Directory for cancer

Microsoft Excel 490 KB

Summary

The National Genomic Test Directory for cancer specifies the genomic tests commissioned by the NHS in England for cancer, the technology by which they are available, and the patients who will be eligible to access to a test.

Updated 21 April 2022.

NHS England

Currently Eligible for Whole Genome Sequencing

Phase 1:

- Sarcoma
- Paediatric Tumours to 18 years old
- Haematological malignancies

Phase 2:

- CNS
- Paediatric tumours to 25 years old
- CUP where standards of care have been exhausted
- Adult solid tumours exhausted all SOC testing and treatment

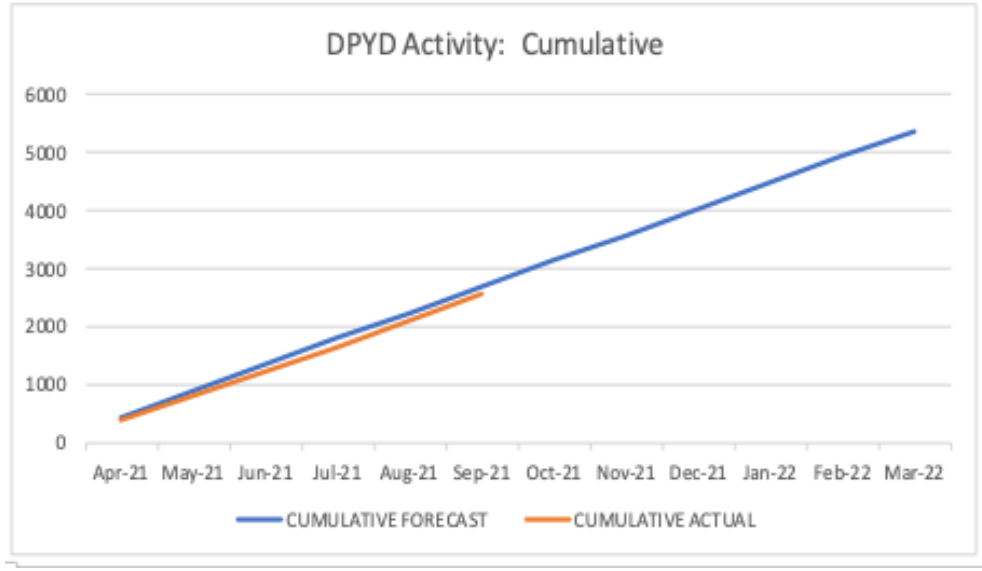
Phase 3:

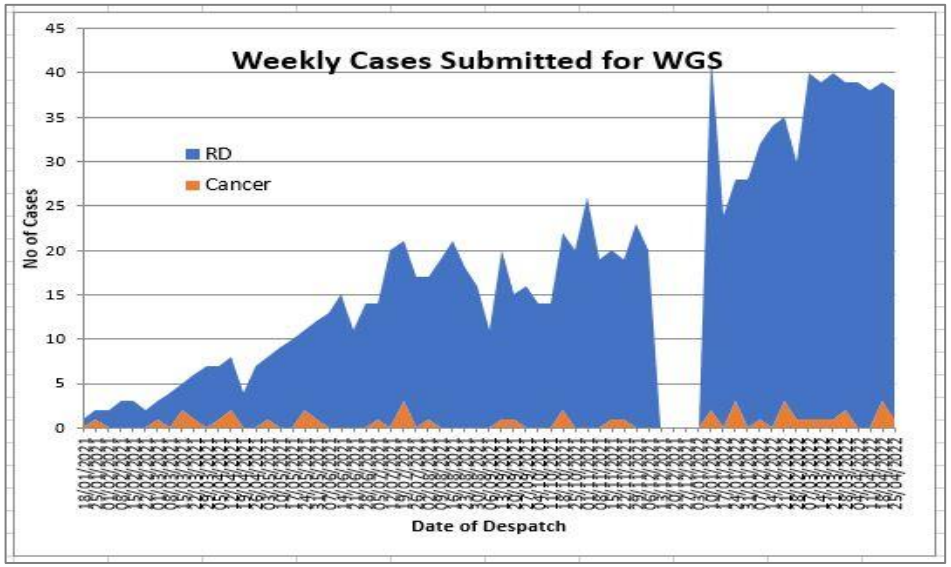
- High grade serous ovarian cancer (pilot)
- Triple negative breast cancer (pilot)

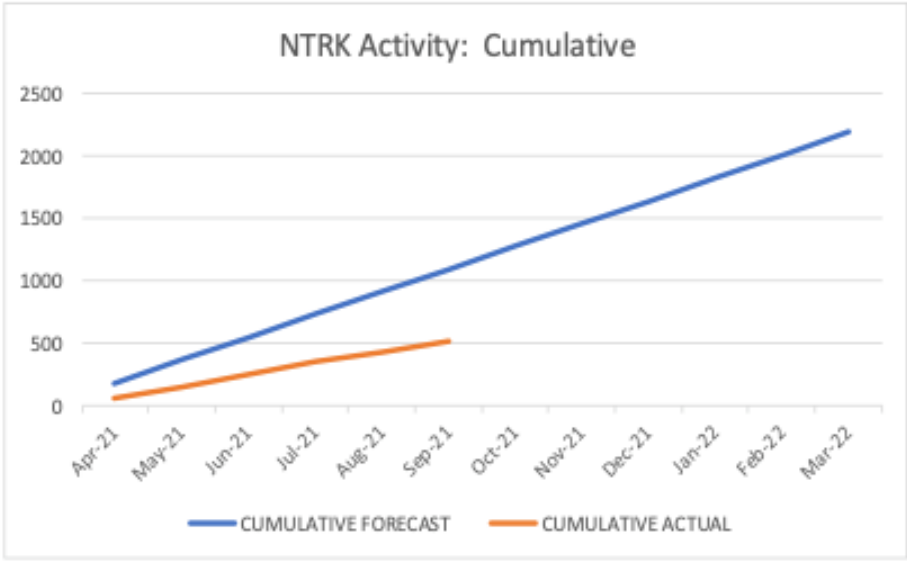
CRITICAL TESTING WE SHOULD BE DOING ROUTINELY

- Large gene panel testing for all indications on the National Genomic Test Directory (reflex testing or MDT decision)
- Increasing the uptake of Whole Genome Sequencing (WGS) for patients with eligible cancer types (embedding acquisition of fresh tissue at diagnosis for WGS)
- Lynch testing for endometrial and colorectal patients
- DPYD testing for all patients receiving fluoropyrimidines
- NTRK testing for all eligible metastatic cancer patients

NWGLH Metrics







Barriers

EDUCATION

PATHOLOGY ENGAGEMENT

PATHWAY CHANGE/MODERN -IZATION

INFRASTRUCTURE

IT SYSTEMS

What are the enablers?

PANEL TESTING

PATHOLOGY SPECIMEN DIAGNOSTICS (FFPE)

REFLEX GENOMIC TESTING ACCORDING TO TEST DIRECTORY

RESULTS AVAILABLE IN TIME FOR ONCOLOGY REVIEW

WHOLE GENOME SEQUENCING

Routine acquisition of fresh tissue for all patients

Storage of fresh frozen tissue?

Consent to WGS later

RESOURCE?

Questions?

Greater Manchester Cancer

GM ACTIVE
WE MOVE AS ONE

PREHAB 4 CANCER
GREATER MANCHESTER
Nutrition
Exercise
Wellbeing

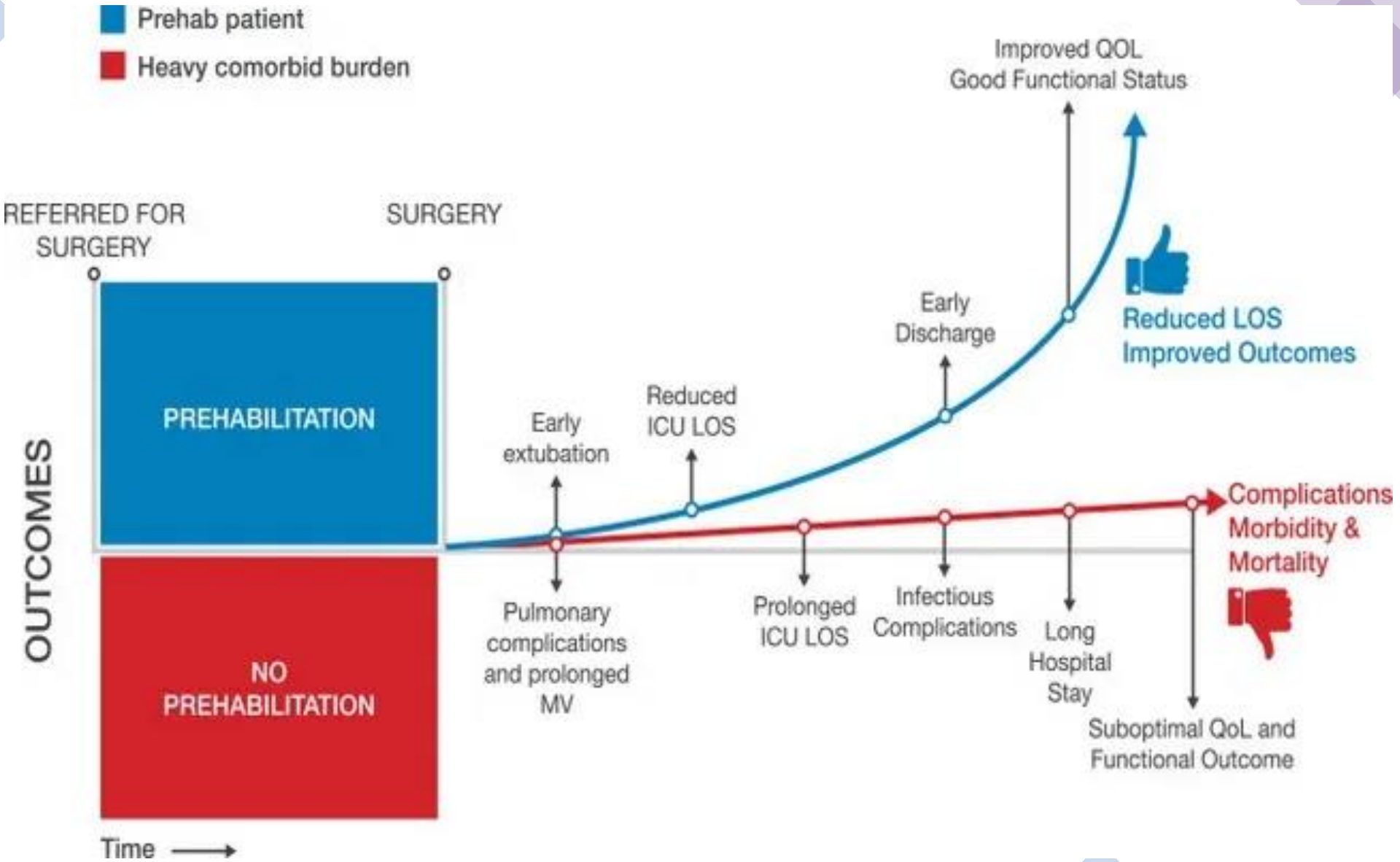
Personalised Care for Cancer

Role of Prehab

MANCHESTER 1824
The University of Manchester

Manchester Metropolitan University

NHS
in Greater Manchester

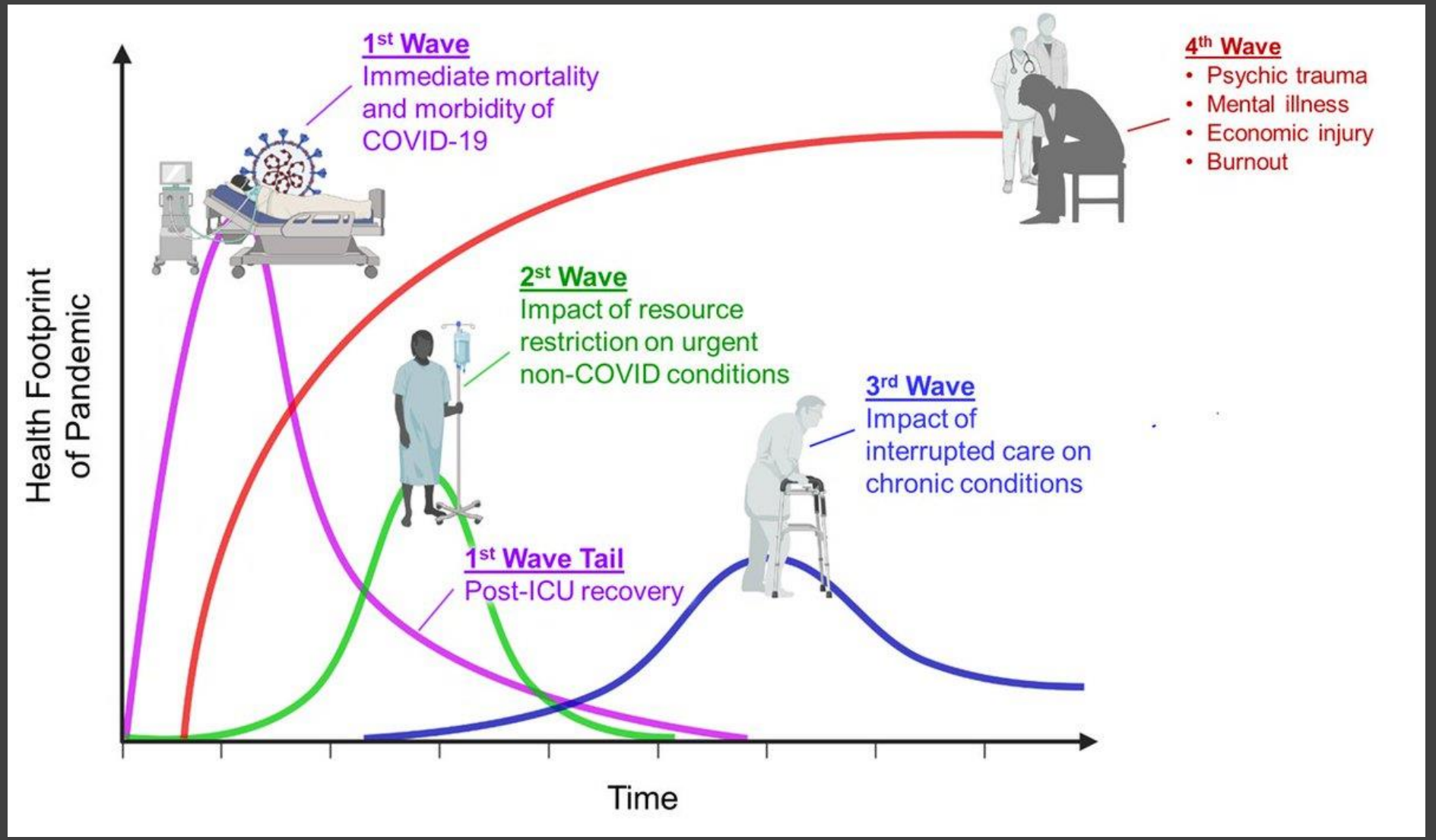

Prehab patient
Heavy comorbid burden
REFERRED FOR SURGERY
SURGERY
PREHABILITATION
NO PREHABILITATION
OUTCOMES
Time
Improved QOL
Good Functional Status
Reduced LOS
Improved Outcomes
Early Discharge
Reduced ICU LOS
Early extubation
Complications
Morbidity &
Mortality
Pulmonary complications and prolonged MV
Prolonged ICU LOS
Infectious Complications
Long Hospital Stay
Suboptimal QoL and Functional Outcome

CONTINUUM of PREHAB

DIAGNOSIS	MULTIMODAL PREHABILITATION	TREATMENT(S)	REHABILITATION	SELF-MANAGEMENT
Introduce prehabilitation, goal setting towards personalized outcomes, and co-design of intervention	Support prehabilitation with multiprofessional approach using direct supervision and self-management strategies for optimal dosing and adherence	Assess prehabilitation effectiveness on pre-, peri, and post-treatment health outcomes and potentially adjust treatments to reflect changes in health status	Early initiation of rehabilitation to support faster recovery to activities of daily living and potential prehabilitation for adjuvant treatments	Promote self-management skills for sustained positive health behaviours

RECURRENT OR SECONDARY CANCER

The impact of **Covid – human waves of Covid**



Victor Tseng @VectorSting

BMA

Pay & contracts | Advice & support | What we do | Library & learning | News & opinion | Events

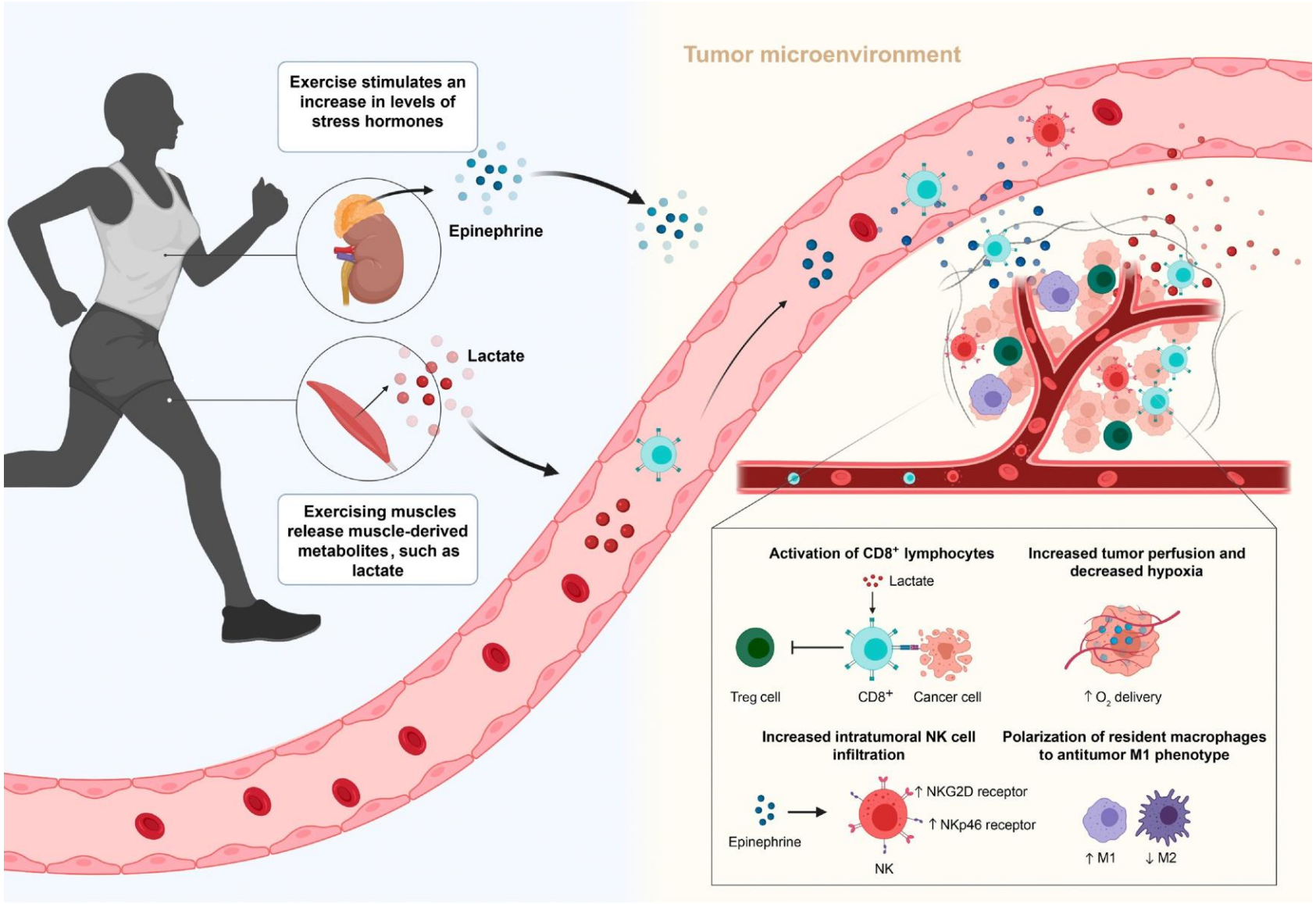
Home > News and opinion >

Austerity – COVID's little helper

Severe public health cuts left the UK more vulnerable to COVID – while the huge bill from tackling the pandemic could make austerity even worse. Peter Blackburn reports on doctors' determination to break a vicious circle of decline

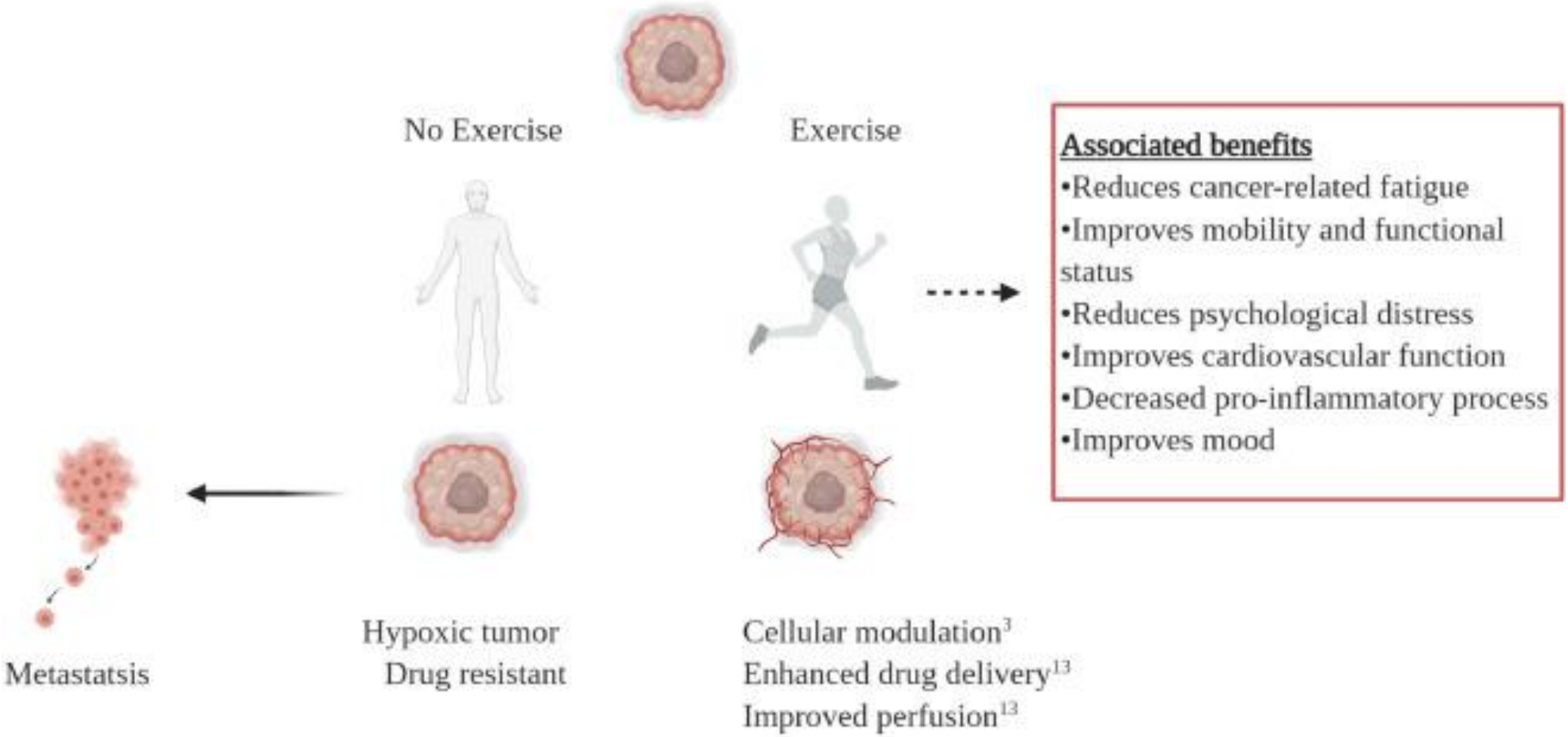
Location: UK Last reviewed: 8 October 2020

Exercise as cancer therapy

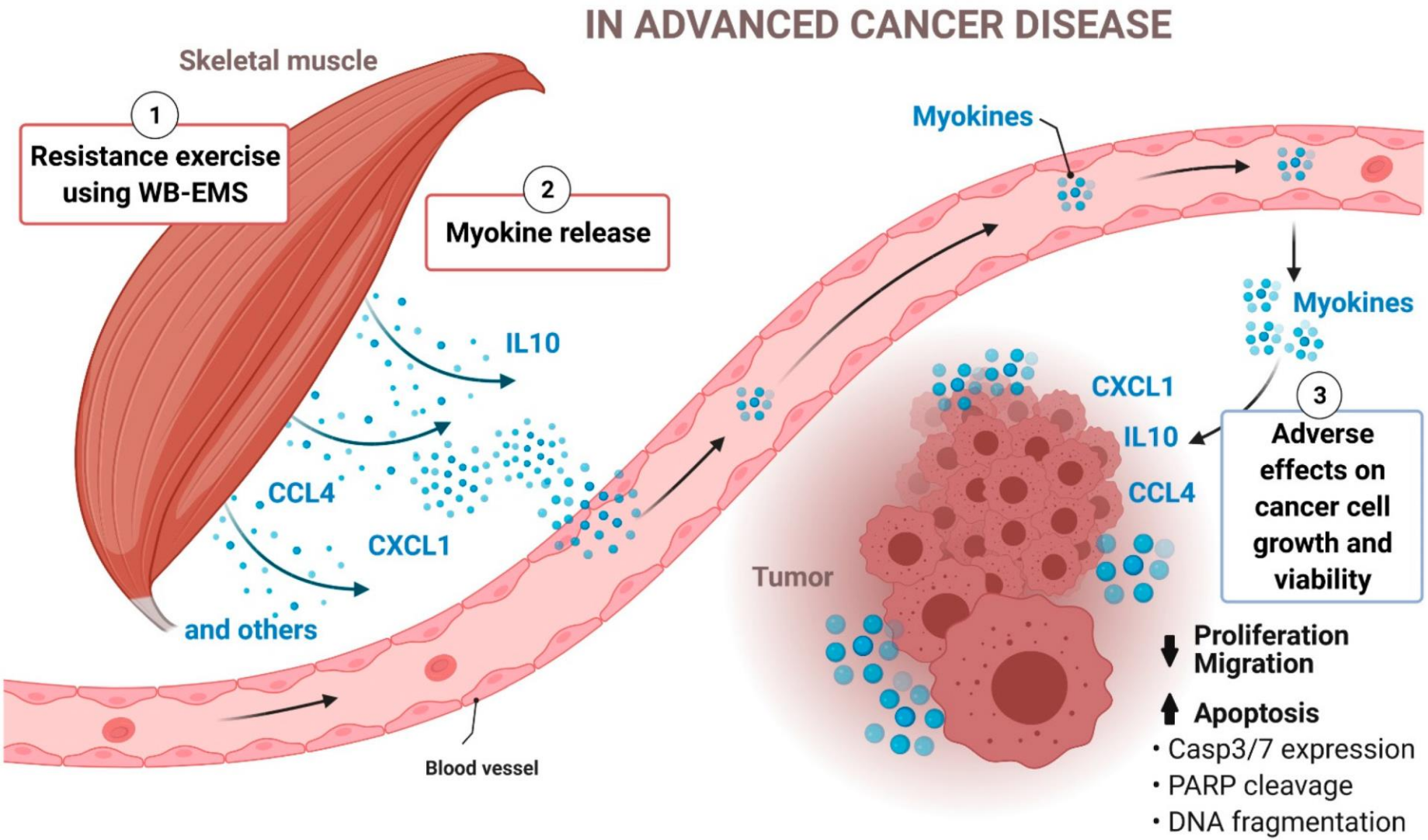


Fiuza-Luces, C., et al. (2021). "Exercise Benefits Meet Cancer Immunosurveillance: Implications for Immunotherapy." Trends in Cancer.

Acute Exercise and the Tumor Microenvironment



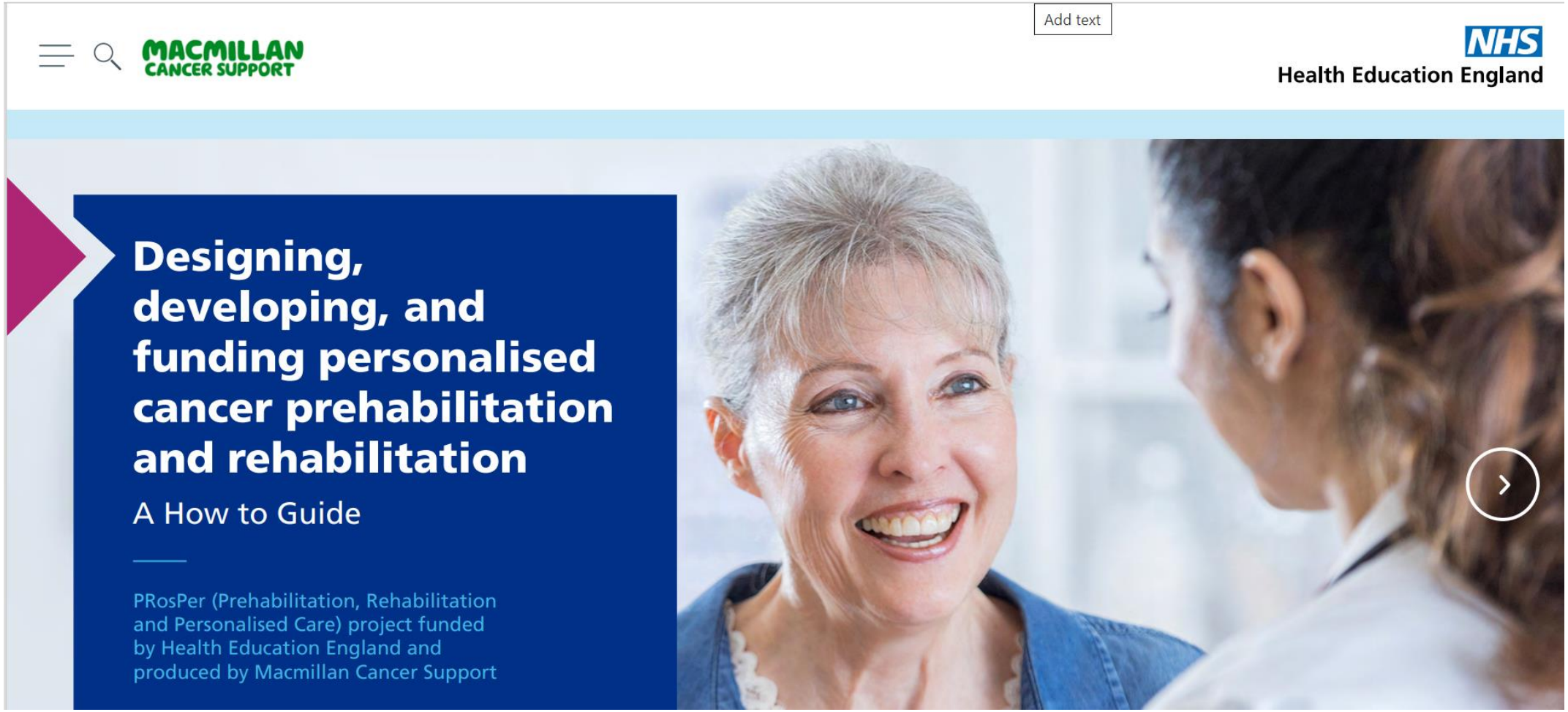
Miller, R., et al. (2020). Physical Exercise and Cancer: Exploring Chemotherapy Infusion as an Opportunity for Movement. Seminars in Oncology Nursing



Schwappacher, R., et al. (2021). "Muscle-Derived Cytokines Reduce Growth, Viability and Migratory Activity of Pancreatic Cancer Cells." Cancers **13**(15): 3820.

PRosPer

Prehabilitation, rehabilitation and personalised care



COMMUNITY BASED PREHAB

2019
System level prehab & rehab
Patient and Healthcare Partnership

Gym – healthcare team developed
80+ facilities
14 evaluation centres

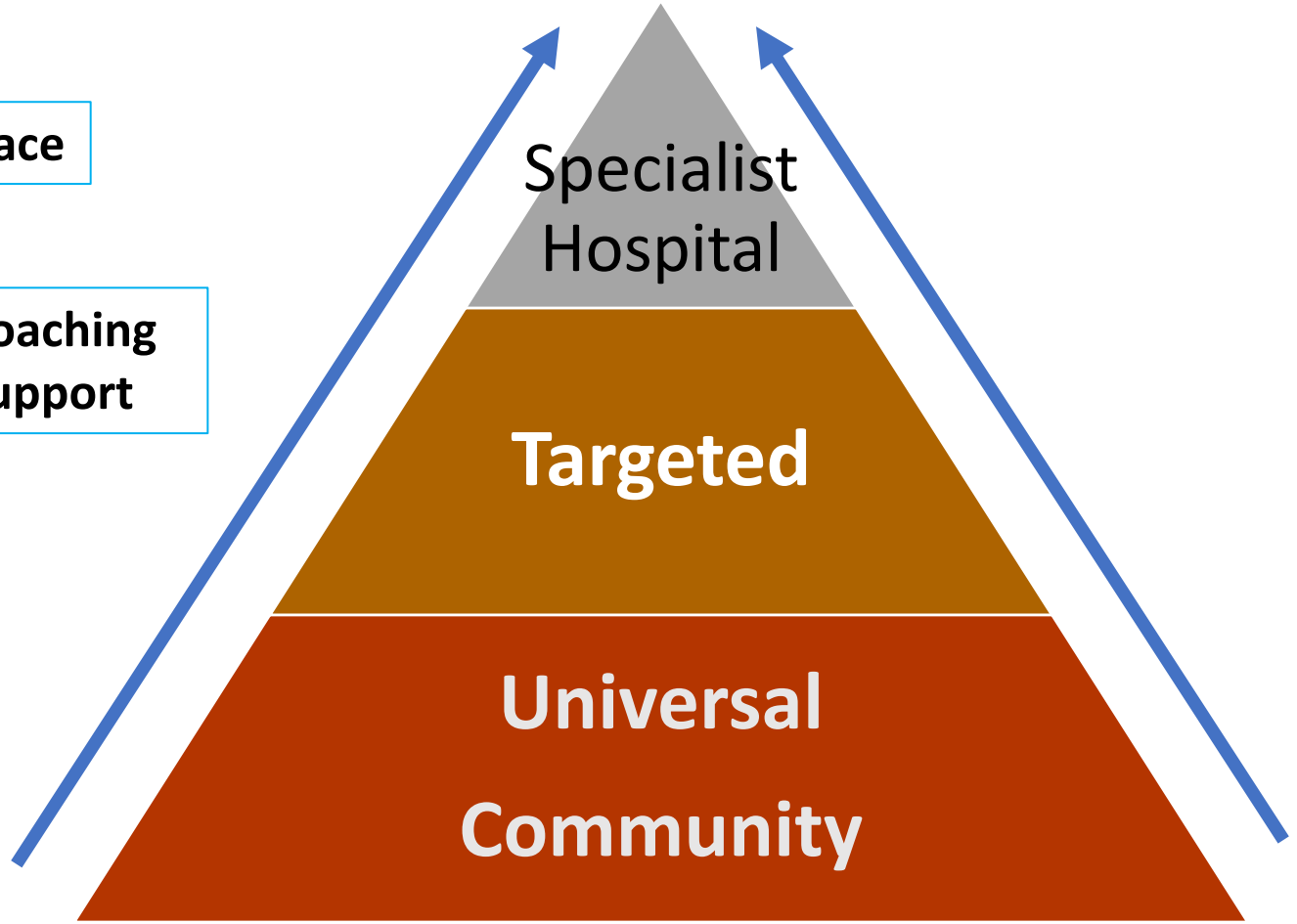
in Greater Manchester

1000 patients/yr

Prehab

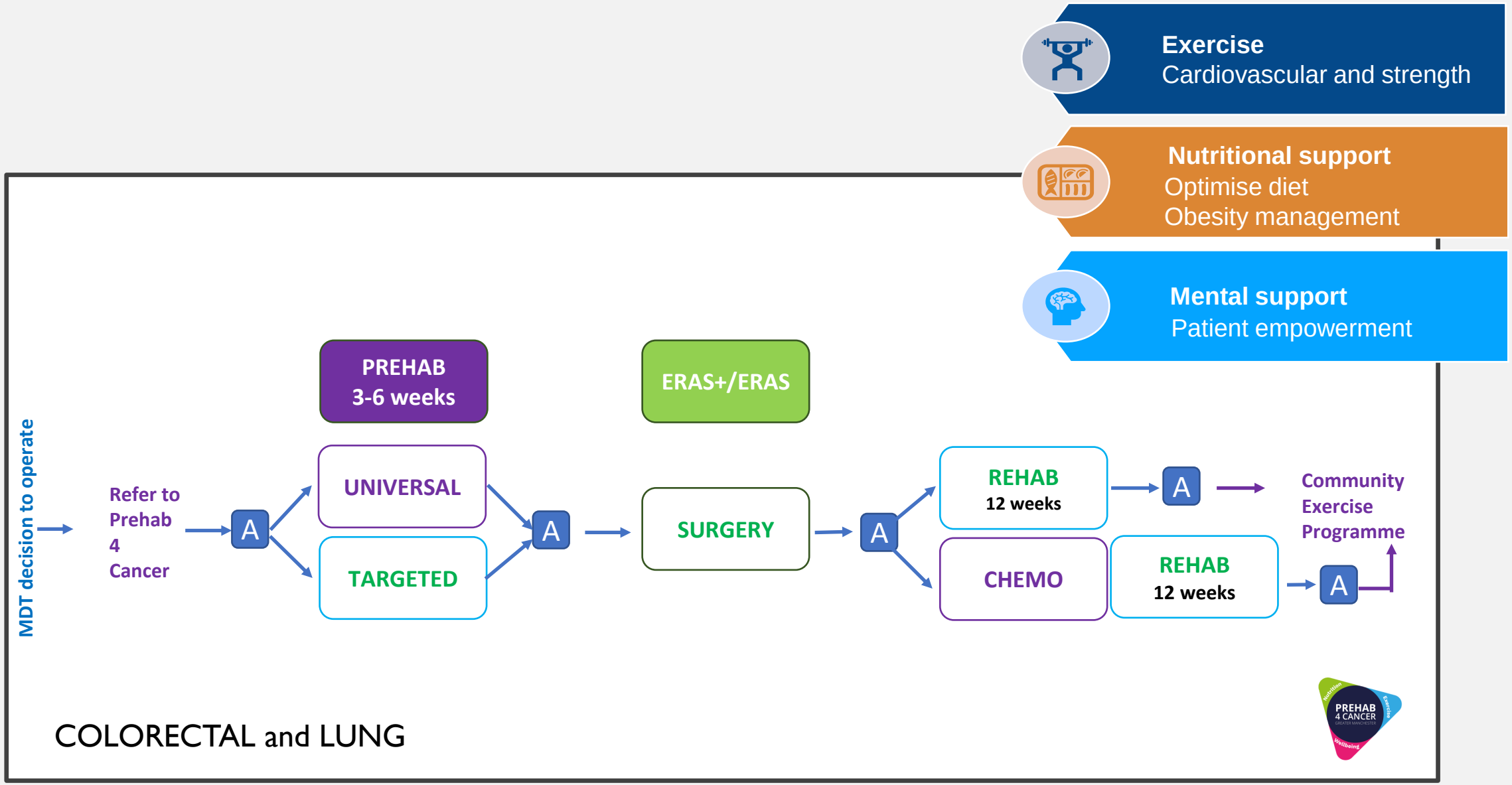
Face to face

Coaching
Support



COLORECTAL
LUNG
UPPER GI

Prehab Triage:
Exercise
Nutrition
Psychological


Exercise
Cardiovascular and strength
Nutritional support
Optimise diet
Obesity management
Mental support
Patient empowerment
PREHAB
3-6 weeks
ERAS+/ERAS
MDT decision to operate
Refer to
Prehab
4
Cancer
A
UNIVERSAL
TARGETED
A
SURGERY
A
REHAB
12 weeks
CHEMO
A
REHAB
12 weeks
A
Community
Exercise
Programme
COLORECTAL and LUNG

Exercise
Cardiovascular and strength

Combination of HIT and Strength

- ✓ **CVS aiming for High intensity**
- ✓ **MUSCLE strengthening**
- ✓ **Progressive programme**
- ✓ **Aiming for 3x week**

High Intensity more efficient than moderate intensity
Supervised > unsupervised

Need exercise specialist to generate exercise programme

Psychosocial Support

HOLISTIC NEEDS ASSESSMENT &
STEPPED CARE MODEL (NICE 2009)

Level	Group	Assessment	Intervention
1	All the health and social care professionals	Recognition of psychological needs	Effective information giving compassionate communication and general psychological support. Solution focused.
2	Health and social care professionals with additional expertise	Screening for psychological distress	Psychological techniques such as problem solving, fatigue management etc.
3	Trained and accredited professional	Assessed for psychological distress and diagnosis of some psychopathology	Counselling and specific psychological interventions such as anxiety management and solution-focused therapy, delivered according to explicit theoretical framework
4	Mental health specialists	Diagnosis of psychopathology	Specialist psychological and psychiatric interventions such as psychotherapy, including cognitive behavioural therapy (CBT

Nutrition - Patient-Generated Subjective Global Assessment (PG-SGA)

- nutritional screening the first four boxes from PG-SGA, including weight history, food intake, symptoms and activities combined with function designed for patients to self-screen were completed.

- The PG-SGA used to triage patients into low, moderate, or high risk of malnutrition.
- low risk (PG-SGA, score 0-1), provided with a Prehab4Cancer diet sheet designed by the Prehab4Cancer Greater Manchester nutrition group.
- moderate risk (PG-SGA, score 2-3) provided with an 'Eating help yourself' booklet.
- high risk of malnutrition (PG SGA, score ≥4) were also provided with the 'Eating help yourself' booklet plus the exercise specialists escalated back to the referring **clinical team/dietician involvement**

ASSESSMENT CLINIC OVERVIEW

Referral Portal *48 Hr Contact*

Baseline Assessment *4 working days*

Post Chemo *Upper GI only*

Pre-Op Assessment *Within 5 days*

Post-Op Assessment *6,8,12 weeks*

End of Rehab *12 Week intervention*

Functional Capacity

- ISWT or 6 Min Walk
- Hand Grip Dynamometry
- 1 Minute Sit to stand

Questionnaires

- EQ5D-5L
- IPAQ
- Self Efficacy Scale
- Rockwood Frailty
- WHODAS 2.0
- EORTCQLQ-C30

Health checks

- Blood pressure
- Height
- Weight
- Resting HR
- Oxygen stats
- PG-SGA

Rate of Perceived Exertion Scale		
10	V.Hard	Feels almost impossible to continue
9	Hard	Not able to maintain for long
8	Challenging	Breathing rate increases, Feel warmer
7		
6	Manageable	Becoming challenging but you can maintain this intensity. Slight increase in breathing
5		
4		
3	Very Easy	The exercise is causing no exertion & no increase in breathing rate
2		
1		

NHS in Greater Manchester

Monitoring

EXERCISE INTENSITY

Throughout your home exercise guide, you will notice a section titled "Rate of Perceived Exertion Log". The Rate of Perceived exertion or RPE, is simply how the exercise feels whilst you are performing it. In this section, please record a number that you feel represents the intensity of the exercise based on the prescription provided to you by your exercise specialist. *"Record how difficult you thought the exercise was"*

Monitoring your RPE (how you feel whilst you are exercising is an essential tool for your exercise specialist to gauge your progress, so please make every effort to complete this section so that you can feedback the information to the specialist.

Please complete the RPE log with a value that corresponds to the table below.

If you have any trouble with the exercises then please record this in the notes section.

GM ACTIVE

Cardiovascular

CONDITIONING

Standing Marching

Cardiovascular Exercise

Improves health of heart & lungs

Equipment Required: Chair for support

Description: March on the spot, with arms pumping, for the advised amount of time. Alternate your steps. Use support if needed (have a chair in front of you)

Duration	Sets	Repetitions

Rate of Perceived Exertion Log					

Notes

PREHAB 4 CANCER

Side Steps

Cardiovascular Exercise

Improves health of heart & lungs

Equipment Required: Chair

Description: Stand tall with your feet shoulder width apart.
Take a comfortable step out to the side with one leg and then bring the other leg to meet it shoulder width apart. Repeat to the other side.

Duration	Sets	Repetitions

Rate of Perceived Exertion Log					

Notes

GM ACTIVE

NHS in Greater Manchester

Upper Body

EXERCISES

Bicep Curl

Bicep and brachialis strengthening exercise

Aids lifting and carrying ability

Equipment Required: Resistance Band / Dumbbell

Description: Anchor band under foot. Lift to shoulders, keep elbows tucked in, slowly return to the start & repeat

Duration	Sets	Repetitions

Rate of Perceived Exertion Log					

Notes

PREHAB 4 CANCER

Tricep Extensions

Deltoid strengthening exercise

Aids lifting ability

Equipment Required: Resistance Band

Description: Position your hands close together and in front of your chest with your elbows raised out to your sides. Slowly extended arms out to your sides. Keep the stretched band at chest level. Hold for 2-3 seconds and slowly return to start position

Duration	Sets	Repetitions

Rate of Perceived Exertion Log					

Notes

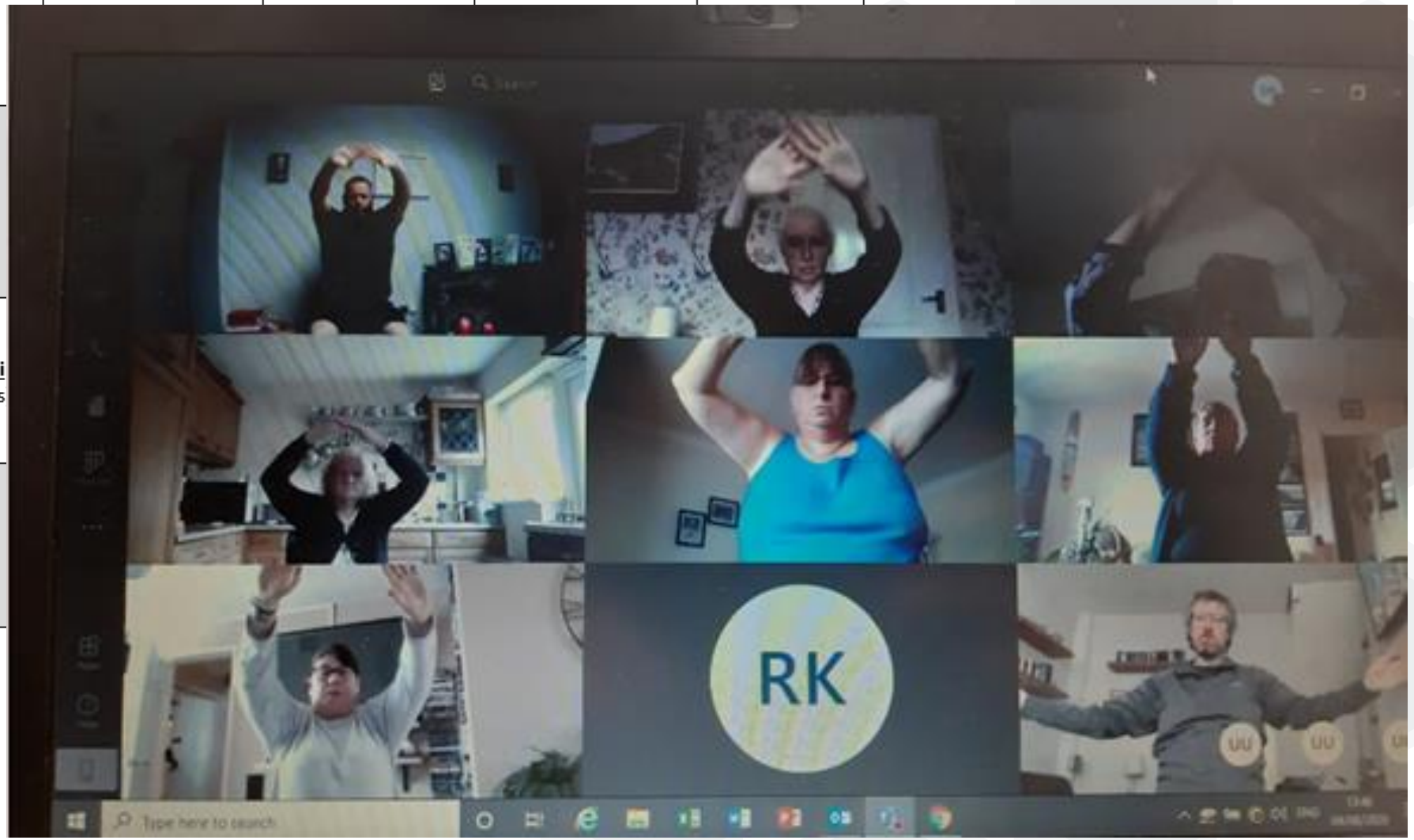
GM ACTIVE

NHS in Greater Manchester

Online Live Classes

CARE Convention
6-7 June, 2022

DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
SUNRISE **7-7:45am**		**Rise & Shine** Level 1-3				
MORNING All morning classes begin at **10:30-11:30am**	**Gentle Circuit** (Level 1-2 Class) **Circuit Class** (Level 2-3 class)					
AFTERNOON All Afternoon classes begin at **1:30-2:15pm**	**CORE Class** (Level 2-3 Class)	**Seated Tai Chi** (Level 1-3 Class				
EVENING **6:30pm**						



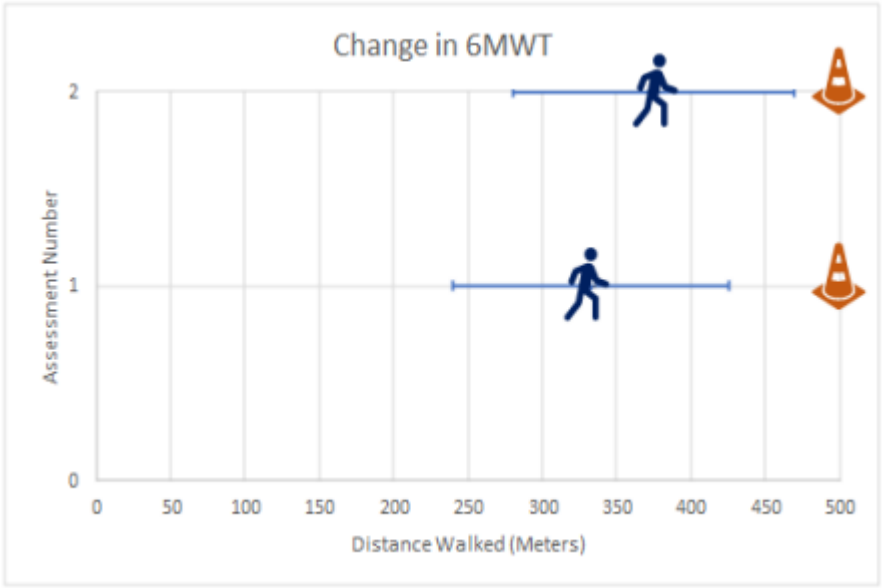
Nutrition
Exercise
Wellbeing
PREHAB 4 CANCER
GREATER MANCHESTER

GM Prehab4Cancer Independent Evaluation

Joining the dots across health and care

Improve Physiological Measures

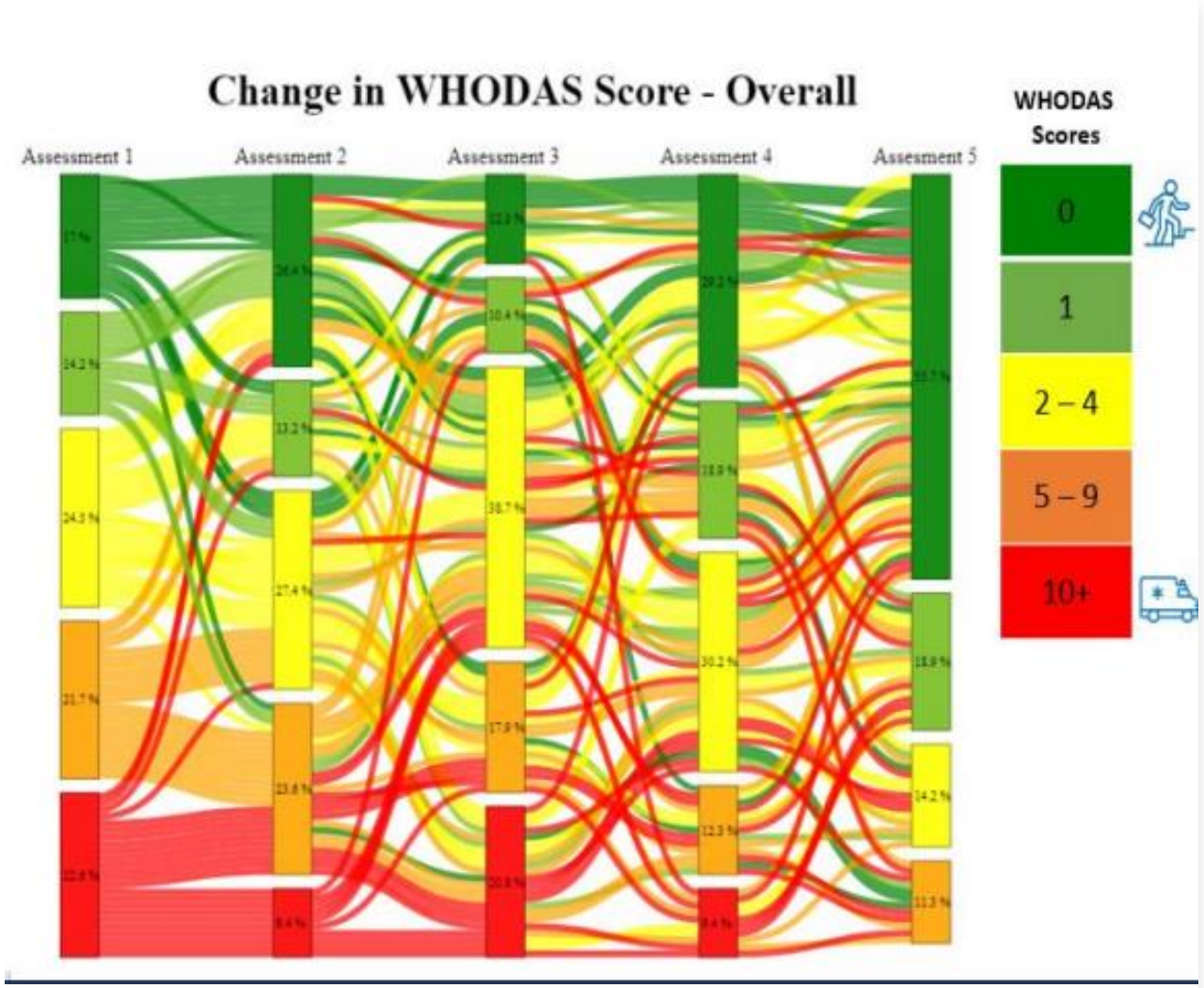
- Clinically significant improvement in 6Minute Walk Test (Functional capacity)
- Clinically significant improvement in lower body strength (Functional Strength)



Assessment	Mean score (Metres)	Variation in score (Standard Deviation)
1: Initial P4C Referral	332.63	92.56
2: Pre-op	375.23	94.51
Difference	+42.60m (Significant)	

Improve Patient Reported Outcome Measures

- Significant (and Sustained) improvement in Self reported Quality of Life Measures
- Clinically significant improvement in Frailty Score
- Significant improvement in health and disability assessment scores



Health Care Resource Use & Associated Savings (ROI)

- Reduced Length of Stay by 2 days = 381 bed days saved
- Reduced 30 & 90 emergency readmissions = 35 bed days saved
- Reduced Emergency Department attendances = 6 bed days saved

	Number per Prehab Patient	Value	TOTAL (Based on 1000 participants)
Bed Days released	1.5	£342 per day*	£513,000
Critical Care Bed Days released	0.4	£1214 per day*	£485,000
ED Attendances prevented	0.39	£375 per attendance*	£146,250
Emergency Readmissions prevented	0.29	£342 per admission*	£99,180
Estimated Financial Benefit			**£1,244,030**
P4C Programme Delivery Cost	-	£400 per participant	£400,000
Balance			**£844,030**

- **£400 cost per participant to deliver**
- **£1,244 provider efficiencies per patient**

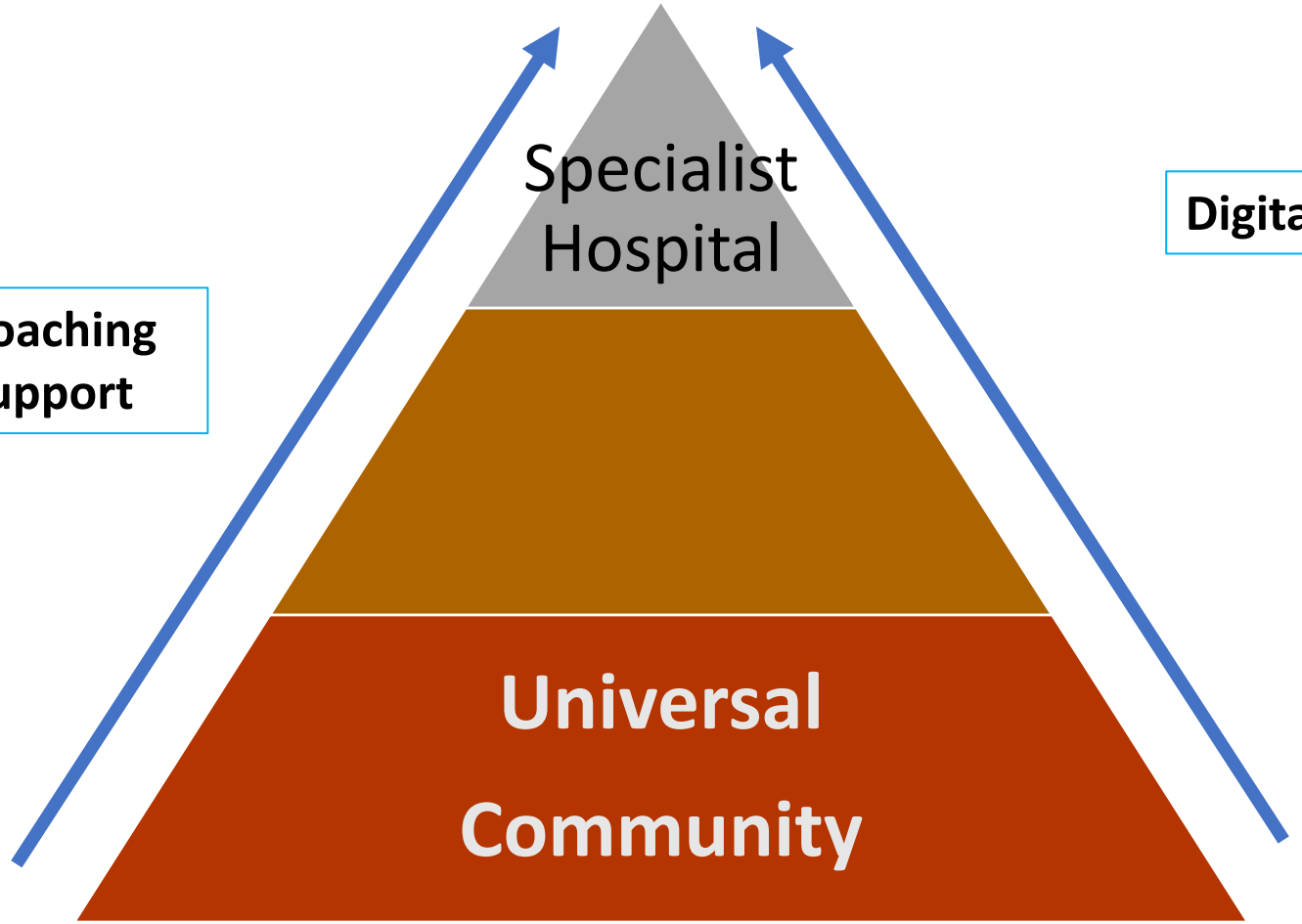
One-Year Survival Post-Surgery

	Number of Patients		Survival at One-Year Post-Surgery			
Cohorts	Prehab	Non-Prehab	Prehab	Non-Prehab	Difference (%)	Significance (P-value)
Colorectal	593	1226	578 (97.47%)	1137 (92.74%)	4.73%	0.03246

- Colorectal – appeared to be significant improvement completed prehab (97.5% compared to 92.7%)

Make the 1000 the 10000!

Hybrid Prehab



Face to face

Coaching Support

Digital - remote

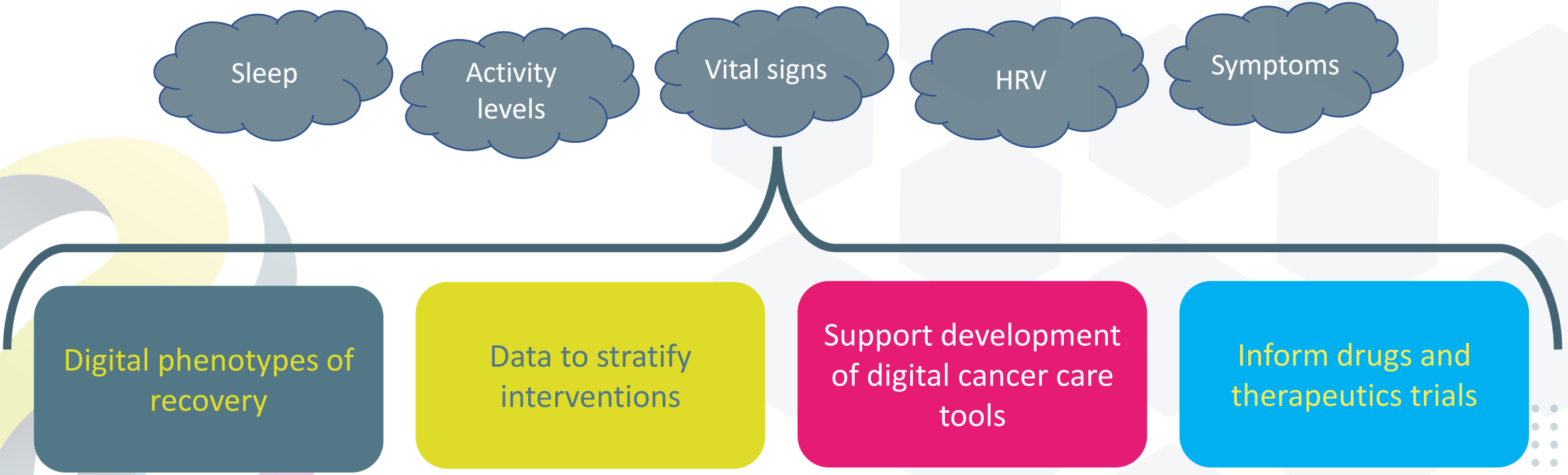
Prehab Triage:
Exercise
Nutrition
Psychological
Digital

Next challenge personalisation

"There is a massive gap between GP and hospital care."

EMBRaCE-GM PPI, Oct 2020

We need real-world data:



Commercial wearable vital signs monitoring…

OURA RING

Withings ScanWatch

Objective, patient generated. With PROMs from mobile devices.

EMBRaCE greater manchester

Enhanced Monitoring for Bette Recovery and Cancer Experience

Quantitative and Qualitative
Observational study
for cancer patients and healthcare professiona

Lung
Colorectal
Car-T

Surgical Endoscopy (2022) 36:1008–1017
https://doi.org/10.1007/s00464-021-08365-6

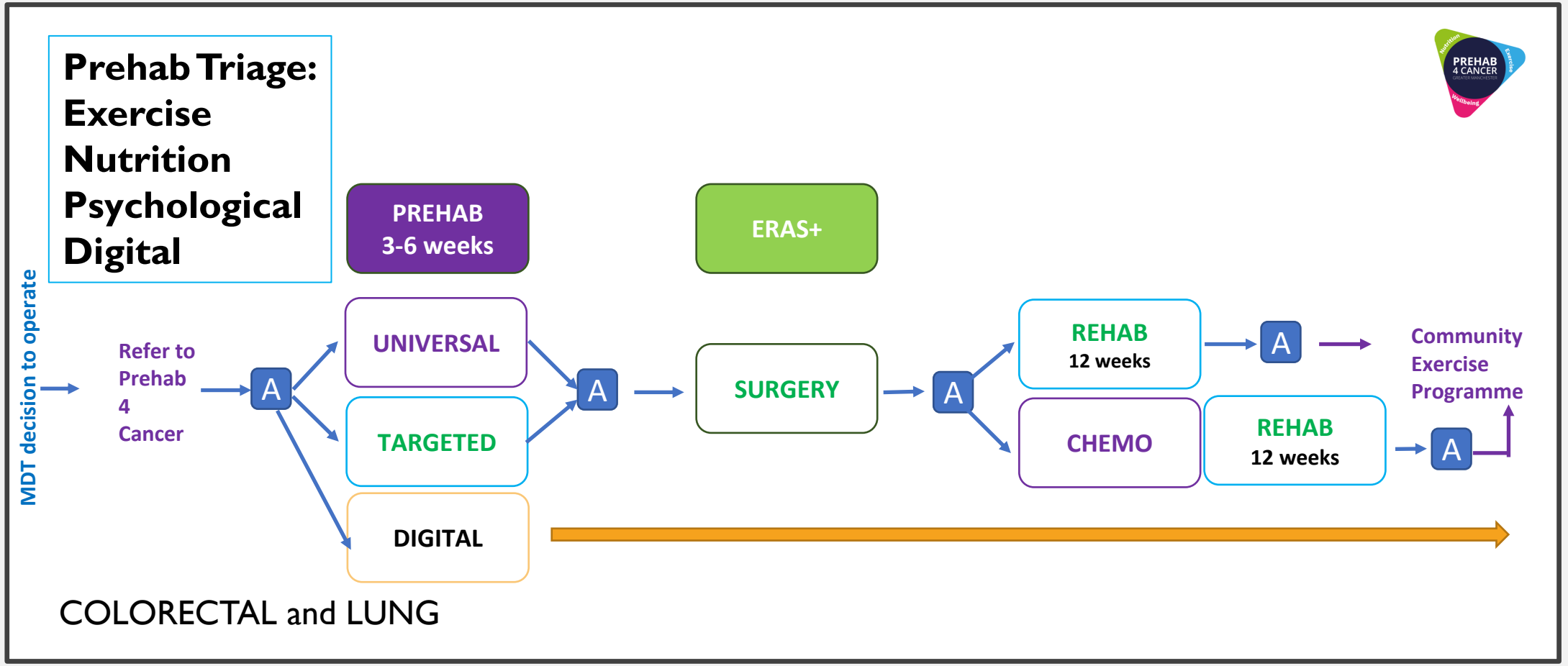
Check for updates

Prehabilitation with wearables versus standard of care before major abdominal cancer surgery: a randomised controlled pilot study (trial registration: NCT04047524)

Ellen Waller[1] · Paul Sutton[2] · Seema Rahman[2] · Jonathan Allen[2] · John Saxton[3] · Omer Aziz[1,2]

Received: 20 September 2020 / Accepted: 9 February 2021 / Published online: 15 March 2021

- Small RCT study
- Specialist cancer centre
- Increased fitness as measured through 6MWT


Prehab Triage:
Exercise
Nutrition
Psychological
Digital
PREHAB
3-6 weeks
ERAS+
MDT decision to operate
Refer to
Prehab
4
Cancer
A
UNIVERSAL
TARGETED
DIGITAL
A
SURGERY
A
REHAB
12 weeks
CHEMO
A
REHAB
12 weeks
A
Community
Exercise
Programme
COLORECTAL and LUNG

Dr Richard Berman FRCP
Supportive & Palliative Care Physician
The Christie NHS Foundation Trust
President, UK Association of Supportive Care in Cancer (UKASCC)

Supportive oncology:
treating the patient, not just the cancer

Trends in Cancer Death Rates

Cancer death rates rise or fall through the years often for reasons not completely clear. Better diagnosis or management or alterations in incidence may contribute to the changes but this report focuses primarily on past and present trends and what the future may hold rather than possible explanations.*

The first comprehensive mortality statistics for any area of the United States were published by the U.S. Bureau of the Census for the year 1900. Now, only heart diseases, cancer, vascular lesions, accidents and pneumonia remain among the 10 leading causes of death reported in 1900.[1] (Fig. 1.) Improvements in public health and in the treatment of many diseases have greatly reduced the death rates from most of the causes listed at the turn of the century.[1-4]

Today, with increased life expectancy, heart diseases, cancer and vascular lesions account for almost two thirds of all deaths, and of all the major causes of death, only heart diseases and cancer have shown increased death rates since 1900. (Fig. 2.) At that time diseases of the heart were the fourth leading cause of death and cancer was the eighth. Diseases of the heart are now the first cause of death in the United States and cancer is the second.

Despite significant improvements in survival rates for many sites of cancer, and decreases in death rates for such sites as stomach and uterus, overall cancer death rates have continued a slow, steady increase through the years, while the death rates for all other causes combined have stabilized. Even deaths from heart disease, which still kill twice as many people as cancer, have leveled off in the last 10 years.

In 1930 detailed statistics on cancer deaths by site in the United States were published for the first time.[5] During the past 40 years the death rates for cancer of various sites have shown different trends. A review of the changes in these trends for major sites will show how

*Each revision of the International Classification of Disease (which is used for coding and reporting causes of death) contains changes in nomenclature which may alter cancer death rates. A detailed discussion of these changes and their effect on reporting cancer deaths is available on request from Mr. Silverberg.

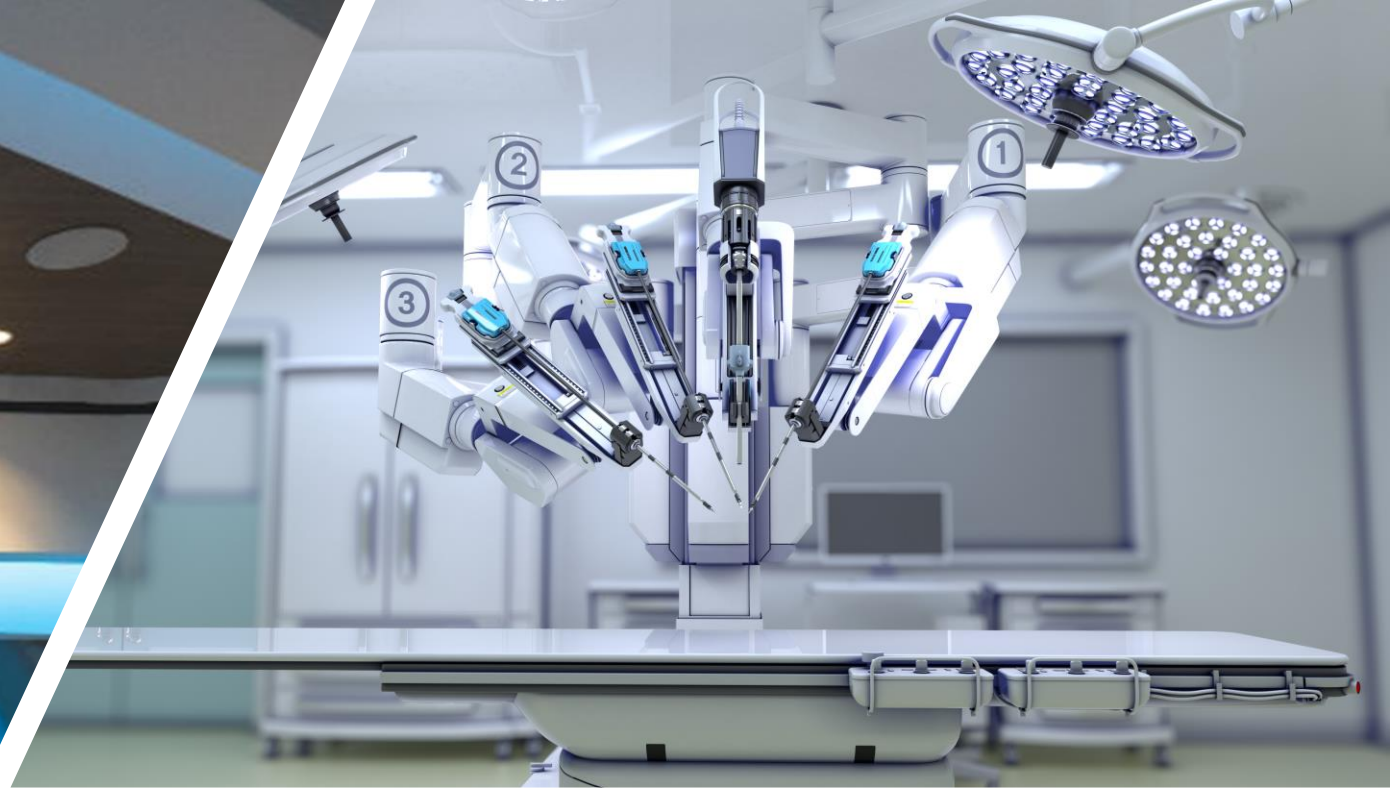
Mr. Silverberg is Project Statistician in the Research Department, American Cancer Society, New York, New York.
Dr. Holleb is Senior Vice President for Medical Affairs and Research, American Cancer Society.

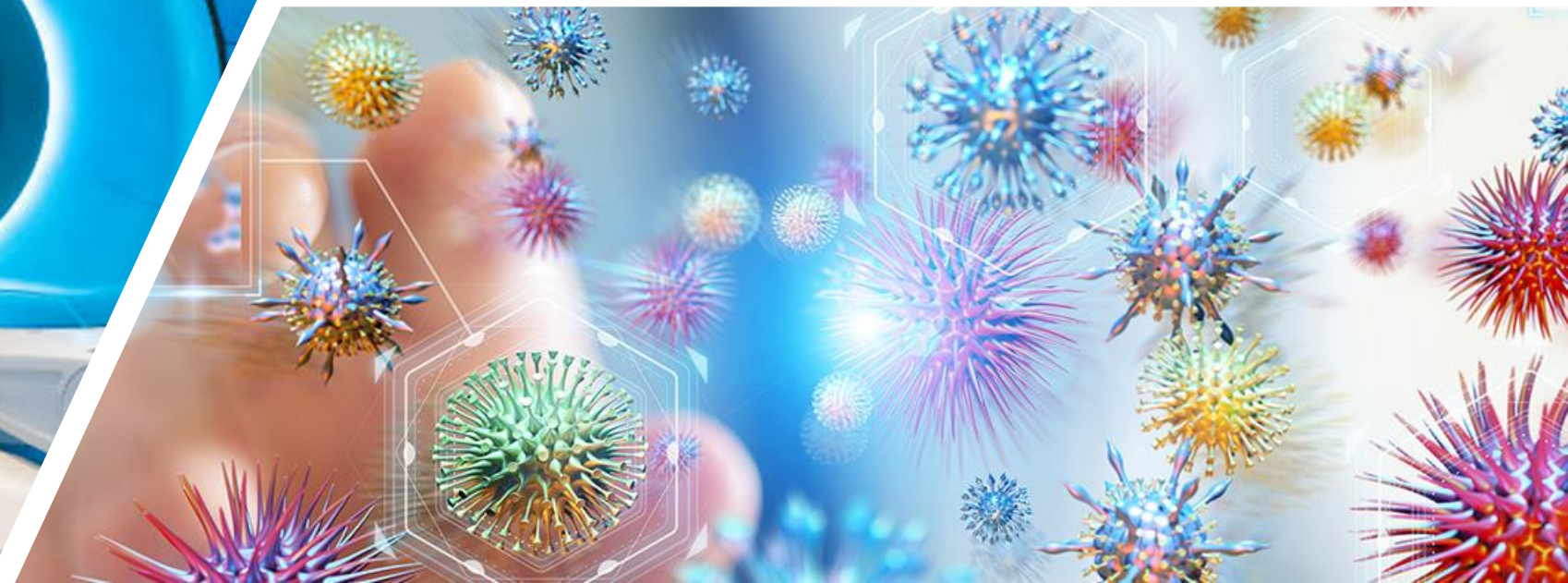
Cancer statistics 1972

In the 1970’s, cancer is mostly about **dying from cancer**

Source: Macmillan cancer relief

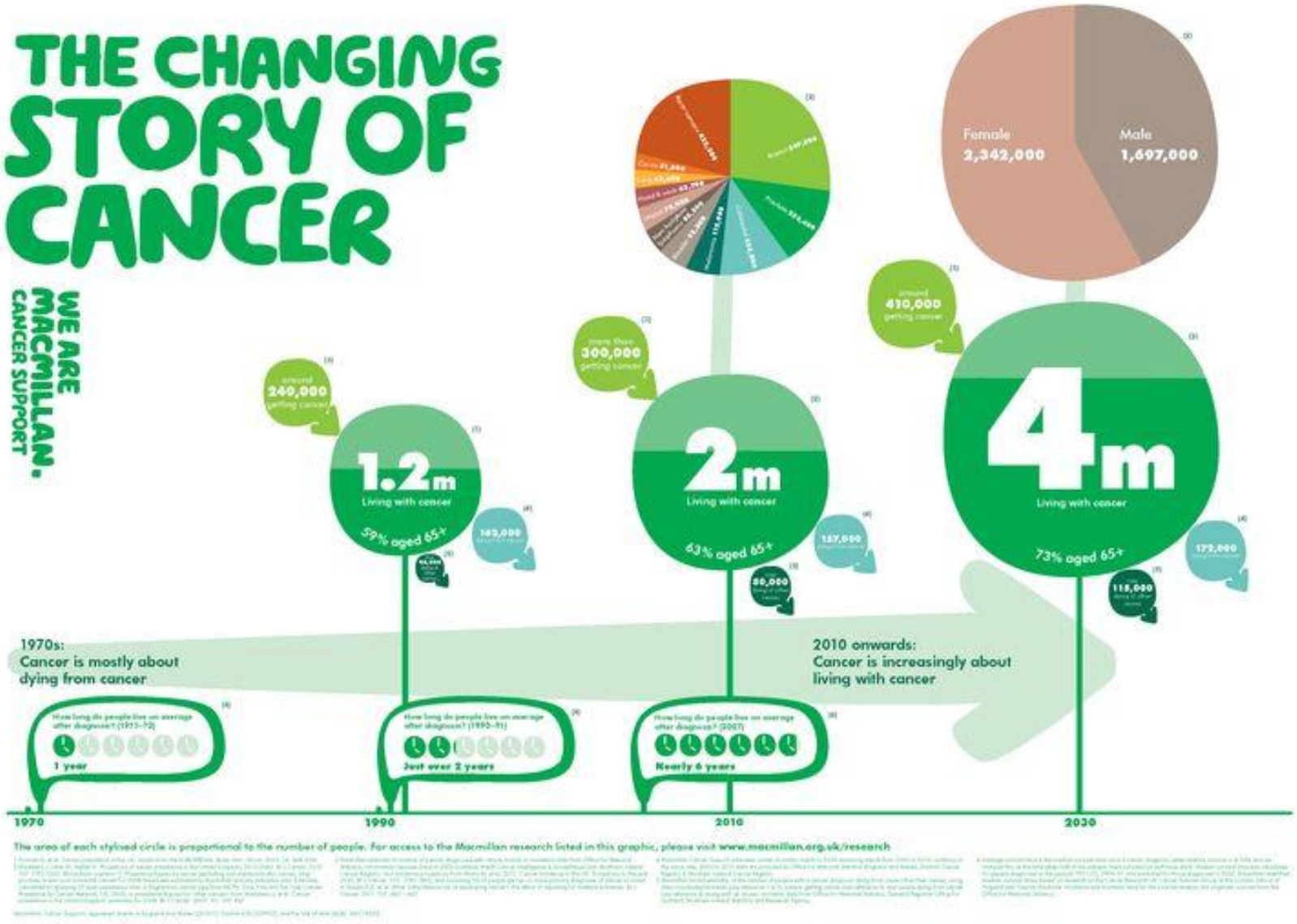

ENOVA


1
2
3



- In 2022, cancer is increasingly
  - about **living with cancer**

Source: Macmillan cancer relief


THE CHANGING STORY OF CANCER
WE ARE MACMILLAN. CANCER SUPPORT
Female 2,342,000
Male 1,697,000
around 240,000 getting cancer
1.2m Living with cancer
39% aged 65+
more than 300,000 getting cancer
2m Living with cancer
63% aged 65+
around 410,000 getting cancer
4m Living with cancer
73% aged 65+
1970s: Cancer is mostly about dying from cancer
2010 onwards: Cancer is increasingly about living with cancer
1 year
Just over 2 years
Nearly 6 years
1970
1990
2010
2030
The area of each stylised circle is proportional to the number of people. For access to the Macmillan research listed in this graphic, please visit www.macmillan.org.uk/research

4 patient categories emerging across the spectrum of the disease

Curative intent (on SACT treatment)	Incurable but treatable (on SACT treatment)	Best Supportive Care (off SACT treatment)	Survivorship (off SACT treatment)
• "with the aim of trying to cure the cancer completely" (NHS)	• "cancer that can very rarely be cured, but can be treated to help manage symptoms or slow the progression of the cancer and extend people's lives" (Macmillan) • May live many years	"usually refers to the last year of life, although for some people this will be significantly shorter" (RCN)	• "A distinct period that commences after [curative intent] treatment is complete and the time during which recurrence most likely has passed" [Handbook of Cancer Survivorship Care]

Patients experience problems across the entire spectrum of the disease

Supportive Care: An Indispensable Component of Modern Oncology R. Berman *, A. Davies y, T. Cooksley, R. Gralla, L. Carter, E. Darlington, F. Scotte, C. Higham. Clinical Oncology 32 (2020) 781e788

DURING TREATMENT

- Control of pain and symptoms due to the cancer and the cancer treatment (including curative intent)
- Organ-specific problems requiring specialist care
- Psychosocial issues
- Acute oncological illness
- Nutrition / exercise issues
- Rehabilitation needs

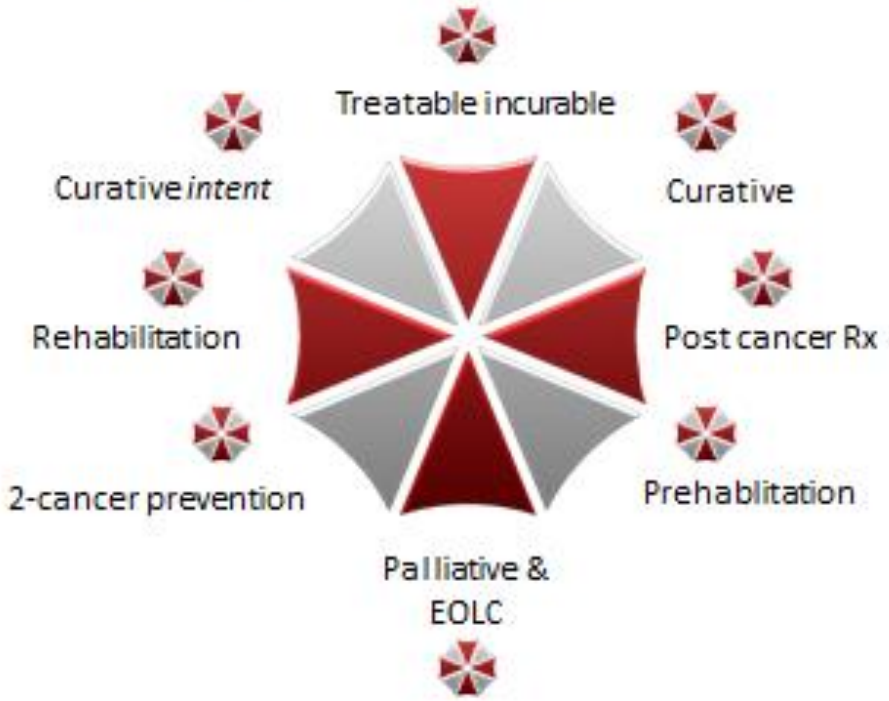
AFTER TREATMENT

- Chronic survivorship pain
- Long term effects of treatment
- Bone health and endocrinopathies
- Joint and soft tissue problems
- Psychosexual issues
- Financial toxicity
- 2nd cancer risk

What is supportive oncology?

1. NHS England. Enhanced Supportive Care. Integrating supportive care in oncology (Phase I: Treatment with palliative intent). Available at: https://www.england.nhs.uk/wp-content/uploads/2016/03/ca1-enhncd-supprtv-care-guid.pdf. Accessed: October 2021; 2. Multinational Association of Supportive Care in Cancer. What is MASCC? Available at: https://www.mascc.org/about-mascc. Accessed: October 2021.

The supportive care umbrella



MASCC™
Multinational Association of Supportive Care in Cancer
Supportive Care Makes Excellent Cancer Care Possible

UKASCC

It requires input from a range of specialties...

- Endocrinology
- Pain medicine
- Cardio-oncology
- Primary care
- Interventional radiology
- Acute medicine
- Psychiatry
- Elderly care medicine
- Palliative Medicine
- Dermatology
- Sports medicine
- Dietetics, physiotherapy, OT

The aim is to deliver personalised supportive oncology for patients wherever they are in the cancer spectrum

TARGETED SYMPTOM / SIDE EFFECT CONTROL **CONSISTENT WITH STAGE OF DISEASE**

QL PRESERVATION / IMPROVEMENT

AFFECT SURVIVAL AND THE QUALITY OF THAT SURVIVAL

PERMIT THE USE OF THE MOST EFFECTIVE ANTICANCER AGENTS

ASSIST ACCURATE DIAGNOSIS AND MANAGEMENT

ENHANCE QUALITY AND ECONOMIC OUTCOMES

How is supportive oncology delivered in practice?

Development of a 'supportive oncology service'	Provision of a broad scope of services across the entire cancer spectrum	Joined up clinical services with other non-oncology allied specialities	Acute and supportive oncology 'directorate'	Rapid access outpatient services
• A multi-specialty team that provides day-to-day management of cancer/cancer treatment-related adverse effects • Accepts referrals at any stage of disease • Underpinned by a developing academic programme	• Photobiomodulation (oral mucositis) • peripheral neuropathy clinic • survivorship services • Bone health clinics • Integrative medicine • Interventional pain medicine • Immunotherapy toxicity service	• AO • Endocrine • Rehab services • Psycho-oncology • Integration with a range of SO services outside of the Christie and across the patch (oral care, rheumatology, dermatology, gastro, respiratory, cardio etc)	• Recognition by the trust • All 'non-oncology' specialties managed under the same umbrella	• ESC clinic

ESC clinic - "Easy access to specialist care when I need it"

Daily drop in

All stages of disease including survivors

Immediate assessment, investigation & treatment

Prevent escalation of problems

Reduce unplanned admissions

Reduce length of stay

Integration with acute oncology, endocrine, physio, pharmacy + psycho-oncology

Unity Insights

SUSSEX CANCER FUND

NHS
University Hospitals Sussex
NHS Foundation Trust

Enhanced Supportive Care
Evaluation overview

Context

Evidence supports that providing good, early supportive care can improve quality of life measures for patients with terminal conditions, possibly lengthening their survival and reducing the need for aggressive treatments towards end of life.

University Hospitals Sussex NHS Foundation Trust (UHS) implemented an Enhanced Supportive Care (ESC) intervention in September 2020, as part of an NHS England programme. The intervention seeks to identify patients with cancer who may benefit from earlier access to supportive care. A team was deployed on the acute wards to identify such patients and provide ESC.

Monetised benefits included:

- Reduction in non-elective admission rate
- Reduction in non-elective average length of stay

Other benefits included:

- Proactive patient management with remote PROMS
- Earlier provision of supportive care for patients at end-of-life

Health economic results

A real-world, mixed methods approach was adopted. A cost-benefit analysis explored the possible future impact of the ESC programme in terms of real monetary cost, with a 5-year forecasted net present value (NPV) and benefit-cost ratio (BCR). Two benefit streams were modelled across all three scenarios: non-elective (NEL) admission rate and NEL average length of stay (LOS).

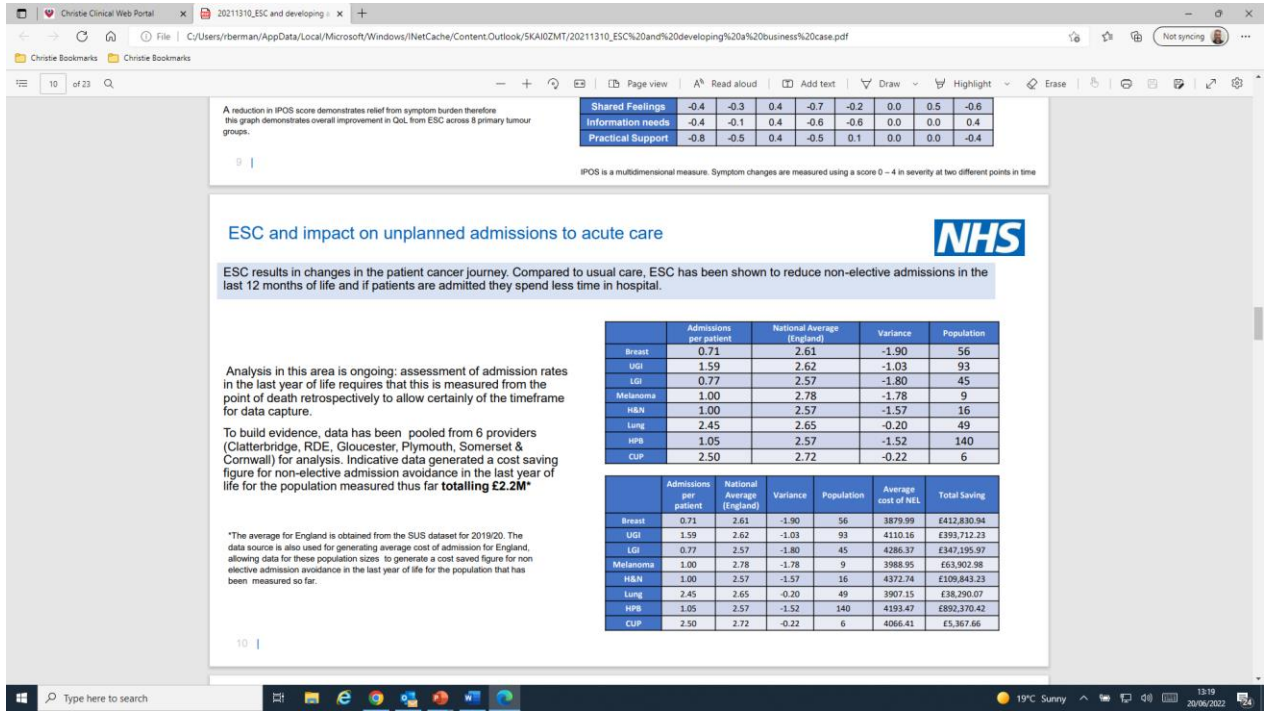
Scenario 1: patient discharge code 79 (sub cohort)

1.43	0.95	£121k	1.2
average reduction in NEL length of stay (days)	reduction in average number of NEL admissions per patient	5-year net present value estimate (2020/21 – 2025/26)	5-year benefit-cost ratio estimate (2020/21 – 2025/26)

A wealth of data to support the economic benefits of better access to supportive care

Table 1. Quantitative outcome measures for enhanced supportive care group versus control group
Note: Statistically significant findings are in bold

	Control group	Enhanced supportive care group
Mortality (%)	28 (56%)	27 (54%)
Median survival (time from diagnosis to death)	**293 days**	**431 days**
Admissions to Clatterbridge Cancer Centre	34	22
Admissions to other trusts	46	18
Total bed days	316	228
Average bed days	6.3	4.6
30 day chemo mortality (%)	**8 (16%)**	**1 (2%)**
Missed Appointments	17	18
Deferred chemotherapy sessions	**51**	**20**
Referrals to other supportive care professionals	40	99



Supportive Oncology: The opportunity for GM Cancer

"Treating the patient, not just the cancer"

- Appoint a GM lead for supportive oncology
- Widen access to ESC clinics, deliver at scale
- Establish a directory of supportive oncology services across the patch
- Development of a 5-yr forward strategy, aligned to the 4 patient categories

Questions?

Break

WORKSHOP

Greater Manchester Ambition for Personalised Care for Cancer Patients

11am-12:30pm

Please answer the two questions below

What are the benefits to including this within the personalised care for cancer vision?

What are the barriers to including this?

Feedback

GMCA GREATER MANCHESTER COMBINED AUTHORITY

NHS in Greater Manchester

Greater Manchester Cancer

What does personalised care mean to you NOW?

Thank you!