Covid-19: Cancer Prehabilitation Toolkit

Purpose

Prehabilitation supports people living with cancer to prepare for treatment. It promotes healthy behaviours and prescribes exercise, nutrition and psychological interventions based on a person's needs, to help them find their best way through. It has a strong evidence base in its effectiveness and helps to tackle health inequalities and is aligned with personalised care agenda in the NHS Long Term Plan and NICE guidance.

Some of London's cancer prehab services are relatively new and many are receiving short term funding. The challenges of these services are about managing Covid-19 related demand as well as developing a robust business case for the sustainability of the service beyond the pandemic. This document is a COVID-19 recovery planning resource to support prehab workforce, Trusts managers and Cancer Alliance leads to develop their local cancer prehab services. It outlines:

- Chapter 1: Guidance to develop a prehab business case including research evidence of the benefit of prehab
- Chapter 2: Prehab resources including videos, blogs and leaflets
- Chapter 3: Prehab screening and assessment tools

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- North Central London
- North East London
- South East London
- RM Partners (South West and North West London)

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It has been led and coordinated by Transforming Cancer Services Team (TCST) for London, part of the Healthy London Partnership through a COVID Prehab clinical working group.

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Chapter 1: Prehab Business Case Guidance

The aim of this guidance is to provide prehab clinicians and managers a basic structure to follow when compiling a business case for prehab services to their local trust or commissioners. It provides a framework to develop your own business case with information related to cancer prehab services such as tips and hints of where to look for incidence and prevalence data, what constitutes financial impact, examples of options appraisals, outline what is risks and benefits in a business case as well as research evidence of the benefit of prehab services to patients.

Section 1: Executive summary

The 'Executive Summary' summarises the business case, including your recommendations. It is often best written last, when you are clear about your recommended course of action, and why. Remember that some decision-makers may only read the executive summary, so you need to make sure that you have included everything relevant. For example, the rationale for the suggested intervention, references to evidence, and the estimated number of people the intervention will impact.

This section should be a one-page summary of the high-level business case that could cover:

- your trust's ambition for prehab services and the case for change
- high-level benefits of the proposed service model, including summary table of year-by-year costs, benefits and net cost/benefit
- brief description of proposed service model
- alternative delivery options considered – options appraisal

Data, data, data

Use incidence and prevalence data to show the number of patients that your prehab service may impact. Prevalence is a measurement of all individuals affected by the disease at a particular time, whereas incidence is a measurement of the number of new individuals who contract a disease during a particular period of time. It should, if possible, include the following levels of information.

- National picture
- London
- Integrated Care System (ICS) or Sustainability & Transformation Partnership (STP)
- Trust (and borough where possible)
- By tumour site or pathway

Sources of data include:

- TCST/PHE Cancer Prevalence Dashboard.
- Cancer Research UK
- Macmillan Cancer Support
- Cancer Patient Experience Survey
- National Cancer Quality of Life Survey
- Local Holistic Needs Assessment data
- Outcome research statistics (see Table 1)

Ask your local Alliance Personalised Cancer Care Lead for further resources if necessary.

- key steps in project roadmap
- top risks to delivering end-state service model.

Case for change for prehab

Consider identifying the key case for change from the two main national policy documents: Macmillan's Prehabilitation for people with Cancer and the NICE Lung Cancer in Adult Briefing.

Key messages include:

- Empowering people living with cancer to take control of their care. (See personalised care for details)
- Evidence based – there is growing evidence of positive effects of prehab on improving health outcomes for cancer patients before and after surgery. Prehab provides an opportunity to tackle the management of a number of risk factors such as anaemia and malnutrition which may have an adverse effect on functional capacity and ultimately on postoperative outcomes, including recovery (see table 4 for details).
- Patients may be physically deconditioned and less resilient emotionally due to long waits for diagnosis and/or treatment. Prehab can reduce deconditioning and promote physical and psychological resilience.
- Rehabilitation provides support patients to maintain their physical and psychological wellbeing to cope with cancer treatment and its potential consequences. Prehab should help reduce the impact of these consequences. (See Integrated Guide to Cancer Rehabilitation for information). Speak to your local Trust to find out about the number of patients on the Patient Tracking List (PTL) for specific tumour sites.
- Prehabilitation is best utilised with population health data to tackle health inequalities –offer patients targeted support for both their physical and mental health needs. This includes designing tailored multidimensional and multimedia programmes to specific group of patients (e.g. digital literacy education, a mixture of online education with different language options, virtual and face to face consultations)
- Value for money - Prehabilitation adds value through reducing short-term harm and resource use as well as potentially improving long-term behaviour and health. This maps onto the Getting It Right First Time (GIRFT) initiative across surgery and perioperative care
- There are 70% people affected by cancer have other long term conditions (LTCs) according to Macmillan 2015. Prehab promote positive health behaviour change which can impact on long term health

Financial impact

Cost information you should consider for pre/rehab services includes:

- Cost per patient per visit (including assessment and subsequent sessions and the proportion of virtual versus face to face appointments)
- Staffing model and costs
- Management cost, including administrative support
- Time for training, clinical supervision and other on cost
- Estimated savings from benefits e.g. emergency admissions, Length of stay (LOS) on critical care, unwanted Intensive Care Unit (ICU) admissions, postoperative complications resulting in reduced follow up appointments.

For more developed services, with support from your evaluation team, you may want to consider the benefits of the service to the patient's wider determinants of health (such as finance, employment, etc)

Section 2: Background/Introduction: Ambition for prehab services

This is the first section in the main document. In this section, you may consider the following in your background/introduction section:

- Your trust's ambition for prehab/rehab services. Include relevant ambitions related to cancer supported self-management, outpatient transformation and personalised care agendas
- The strategic case for change that defines your current situation and the reasons for the change(s) and therefore explains the purpose of your redesign project
- The strategic and corporate objectives your redesign project will meet. (including your trust's Covid or post Covid strategies)
- The agreed design principles that shape the vision and options for redesigning your trust's corporate services e.g. compliance with NICE guidance, consulted/co-design with patients, staff and unions, 'right first time' and 'once only' principles
- How the delivery options to be considered were identified, including stakeholder engagement (consider as widely across the system as possible including patient partners).

Section 3: The Short List and The Preferred model

How to identify the preferred model

In order to identify the preferred model, it is useful to begin by identifying a 'long list' of options, containing all the initial ideas about possible solutions. This should include not only the conventional solutions, but also innovative suggestions.

The long-listed options usually need to be sifted to produce a more manageable 'short list' of options for in-depth appraisal. This should be done according to specific, stated criteria. These may be expressed in terms of, for example, failure to satisfy the principal objectives of the proposal, or violation of important constraints regarding finance, workforce availability, policy commitments, site suitability and so on.

The options selected for in-depth appraisal should include a baseline or benchmark option. This should usually be the 'status quo' or the ‘do nothing’ option, representing the genuine minimum input necessary to maintain services at, or as close as possible to, their current level. The status quo should normally be short-listed and appraised even where it is not considered to be a realistic option. Its function is to provide a benchmark so that the ‘Value for Money’ of the alternative 'do something' options may be judged by reference to current service provision. The exception to this requirement is where the appraisal concerns the introduction of a wholly new service, that is, where there is no existing provision to appraise.

Alternatives to the status quo are referred to as the 'do something' options. These should generally cover a range of levels of provision, for example, from 'minimum acceptable provision' to the highest standards of provision. They should reflect variations in the scale, content, timing and location of services. The range of options considered should be as wide as possible. See section 3 for more details.

Section 3 should provide an overview of the shortlisted models and come up with a reasoning for the preferred model (see ‘How to shortlist prefer models’ for details), covering:

- Their key features
- How they meet the strategic objectives and design principles to achieve your trust’s ambition for prehab services
- The key reasons the model is preferred to the alternatives.
- Further detail should be given on the evaluation of the different delivery options considered, reinforcing how this resulted in the emergence of the preferred model to meet the strategic objectives detailed in Section 2. This should cover:
    - Costs, in terms of the overall cost per delivery option including funding required, expected project costs

- Throughput including the estimated number of patients being treated and staffing requirements.
- Risks identified for each delivery option, including Probability/Impact risk score and mitigation plans (see Table 2 for an example and Table 3 for the type of risks)
- Benefits, in terms of cashable (expected financial savings), non-cashable benefits such as any savings improved accuracy of processes, better ways of working for staff, improved patient experience, improved quality of life for patients (see Table 4 for further information)
- Key changes within each delivery option outlined.

Table 1: Example of options appraisal of the shortlist options

Option	Option outline	Summary of outline / Risks / Reason for Rejection (where appropriate)	Preferred Option (Y/N)
1	**Do Nothing**	No access to prehabilitation or optimisation: Patients continue on current treatment pathway. Patients would likely receive non to sub-optimal care timing and intensity/duration of optimisation interventions. Impact: - Service has longer than national average LOS - Service does not meet national prehabilitation guidance - Service has reduced patient health outcomes related to treatment complications, increased morbidity -Longer patient recovery time -Increase appointment burden	*No*
2	**Prehabilitation programme for Cancer Patients** **(Include workforce proposed: WTE, band, discipline)**	Prehabilitation pathway embedded into the patient cancer pathway with routine access to multimodal prehabilitation service (medical, physical, psychological and nutritional optimisation). ___ number of patients will be assessed, triaged and receive individualised treatment and follow up plan by a skilled workforce. Impact: -Reduced hospital and ICU LOS by __ days -Reduced post-op complications by __% -Reduced readmissions by __%	*Yes*

		-Increase capacity for greater through put of acute patients due to improve flow __% -Improved patient health outcomes -Reduced morbidity -Reduced carer burden -Improved patient satisfaction/experience -Reduced appointment burden in acute and primary care	
3	**Primary and secondary care integrated prehabilitation service for cancer patients** **(Include workforce proposed: WTE, band, discipline)**	Primary and secondary care prehabilitation pathway embedded into the patient cancer pathway with routine access to multimodal prehabilitation service (medical (GP, CNS, AHPs), physical, psychological, nutritional optimisation, with support from care navigation, social prescribing and health coaching). ___ number of patients will be assessed, triaged and receive individualised treatment and follow up plan by a skilled workforce. Impact: -Reduced hospital and ICU LOS by __ days -Reduced post-op complications by __% -Reduced readmissions by __% -Increase capacity for greater through put of acute patients due to improve flow __% -Improved patient health outcomes -Reduced morbidity -Reduced carer burden -Improved patient satisfaction/experience -Reduced appointment burden in acute and primary care	*No*

Table 2: Example: Risks

	Risk	1 = low, 5 = high			Mitigation
		Probability	**Impact**	**Risk score**	
1	**Difficulty recruiting/retaining specialist staff**	3	2	6	Widen the recruitment process Improve training provision Design internal career pathway of progression

2	**Lack of administrative support**	5	3	15	Dedicated administrative support for service

Risk is the possibility of a 'negative' event occurring, adversely impacting on the project. Focus on the 20% of the risks which are likely to provide 80% of the project's risk values.

Issues are when risks turn into reality. Your business case may outline existing issues (with impact scores) and how the business case (if approved) would reduce/eliminate those issues.

Table 3: Types of risks

Risk Category	Description
Business	These risks remain with the organisation (100%), cannot be transferred by the organisation and include political and reputational risks.
Service	These associated risks fall within the design, build, financing and operational phases of the project and may be shared with the others from outside of the organisation.
External	These non-systemic risks affect all society and are not connected directly with the proposal. They are inherently unpredictable and random in nature. They include technological disruption, legislation, general inflation and catastrophic risks.

Section 4: Service model detail

Section 4 should detail the end-state service model and cover:

- Service model – diagram of the end-state service model, its key components and how these will work together
- Outline the strategic aligned benefits that the proposed service model will generate by outlining how it meets strategic objectives
- Process view – breakdown of the activities to show which components of the proposed service model will be undertaken by each activity
- Organisation chart showing the high-level management structure for the service model, including a description of the proposed structure and how it will support the service model
- Key performance indicators (KPIs) and other performance measures – an indicative list of KPIs as well as other performance measures required to support the specification of any service and demonstrate value for money (cost and quality)

- Outcomes measures such as Patient Reported Outcome Measures (PROM) and Patient-reported experience measures (PREM). (For introduction, see Kings Fund presentation Link)
- Systems and governance – initial considerations around systems and governance for the service model and the opportunity/challenges these provide
- Resourcing (and locations) – details of current staffing for the prehab service across locations (if relevant), the impact of the service model on headcount and the anticipated financial saving
- Codesign methodology – details how patients and wider stakeholders are involved in codesigning the service including service model, KPI, outcome measures etc.

Table 4: Benefits of a prehab service: Key Evidence Papers and findings

Many of the key documents listed below are based on the comprehensive evidence review in the Principles and Guidance of Prehabilitation, Macmillan (2019).

The Covid-19 London Prehab Clinical Working Group highlighted the following benefits of a prehab service include:

- Providing a comprehensive expert advice and guidance of maintaining fitness and wellbeing for treatment. Especially for people who are on a long waiting list, shielding or with multiple LTCs
- Tackling obesity, alcohol and smoking issues before treatment
- Reduction of stay in ICU (e.g. in St George's Hospital based on their local data they found that in major urology (cystectomy/ nephrectomy) they have seen a reduction in LOS by 0.5 days average.
- Earlier discharge in patients who had attended surgery school, as they had already learned about their catheters/ heparin etc at the school
- Better outcomes in quality of life and long-term survival.

Paper/Links	Key findings for prehab business case
Faithful et al, (2019) Prehabilitation for adults diagnosed with cancer: A systematic review of long-term physical function, nutrition and patient-reported outcomes Eur J Cancer Care (Engl). 2019 Jul;28(4):e13023	When combined with rehabilitation, greater benefits were seen in 30-day gait and physical functioning compared to prehabilitation alone.
Gillis et al (2018) Effects of Nutritional Prehabilitation, With	In a systematic review and meta-analysis, nutritional prehabilitation alone or combined with an exercise

and Without Exercise, on Outcomes of Patients Who Undergo Colorectal Surgery: A Systematic Review and Meta-analysis. Gastroenterology . 2018 Aug;155(2):391-410.e4.	program significantly decreased length of hospital stay by 2 days in patients undergoing colorectal surgery. There is some evidence that multimodal prehabilitation accelerated the return to presurgical functional capacity.
Vermillion et al (2018) Preoperative exercise therapy for gastrointestinal cancer patients: a systematic reviewSyst Rev . 2018 Jul 24;7(1):103.	Preoperative Exercise Therapy (PET) for surgical patients with gastrointestinal malignancies may improve physical fitness and aid in postoperative recovery.
Steffens et al (2018) Preoperative exercise halves the postoperative complication rate in patients with lung cancer: a systematic review of the effect of exercise on complications, length of stay and quality of life in patients with cancer. Br J Sports Med. 2018 Mar;52(5):344.	Preoperative exercise was effective in reducing postoperative complications and length of hospital stay in patients with lung cancer. Whether preoperative exercise reduces complications, length of hospital stay and improves quality of life in other groups of patients undergoing oncological surgery is uncertain as the quality of evidence is low.
Faithful et al (2017) Exercise Training for Patients Pre- and Postsurgically Treated for Non-Small Cell Lung Cancer: A Systematic Review and Meta-analysis. Integr Cancer Ther . 2017 Mar;16(1):63-73.	Evidence from this review suggests that preoperative exercise training may shorten length of hospital stay, decrease postoperative complications and increase 6MWD. Postoperative exercise training can also effectively improve both the 6MWD and quality of life in surgical patients with NSCLC but requiring a longer training period.
Functional and postoperative outcomes after preoperative exercise training in patients with lung cancer: a systematic review and meta-analysis. Interact Cardiovasc Thorac Surg. 2016 Sep;23(3):486-97	Preoperative exercise-based training improves pulmonary function before surgery and reduces in-hospital length of stay and postoperative complications after lung resection surgery for lung cancer.
Cerantola et al (2011) Immunonutrition in gastrointestinal surgery. Br J Surg. 2011 Jan;98(1):37-48.	Perioperative enteral IN decreases morbidity and hospital stay but not mortality after major gastrointestinal surgery; its routine use can be recommended.

Machado et al (2016) Cost-effectiveness of perioperative immunonutrition in Gastrointestinal Oncology Surgery: A systematic Review Arq Bras Cir Dig. 2016 Apr-Jun; 29(2): 121–125.	The cost-effectiveness was positive in most of studies, demonstrating that this diet can significantly reduce hospital costs in the northern hemisphere.
C Wilson and R Colombo (2019) Making the Business Case for Implementing Prehabilitation Services Association of Community Cancer Centres	In patients with cancer, research shows that better physical performance and less pain and weakness is associated with: • Fewer post-operative complications and less prolonged disability • Lower rates of hospital admissions or re-admissions • Better QOL, less fatigue, and less emotional distress • Reduced mortality, reduced cancer recurrence, and fewer adverse effects. Benefits of prehab services to cancer patients include: • Improving health outcomes, including patient outcomes post-surgery • Reducing patient rehabilitation visits after cancer treatment • Decreasing hospital LOS (length of stay) • Decreasing costs
Gao et al (2015) Cardiopulmonary exercise testing screening and pre-operative pulmonary rehabilitation reduce postoperative complications and improve fast-track recovery after lung cancer surgery: A study for 342 cases	Pre-operative screening using CPET is conducive to identifying high-risk patients for lung resection. Pre-operative pulmonary rehabilitation is helpful to reduce postoperative complications and improve fast-track recovery.
Cavalheri & Granger (2017) Preoperative exercise training for patients with non-small cell lung cancer (review) - cochrane review	Preoperative exercise training may reduce the risk of developing a postoperative pulmonary complication, the duration of intercostal catheter use, postoperative length of hospital stay, and improve both exercise capacity and FVC in people undergoing lung resection for NSCLC. The findings of this review should be interpreted with caution due to disparities between the studies, risk of bias, and small sample sizes. This review emphasises the need for larger RCTs
Howard et al. (2019) Taking Control of Your Surgery: Impact of a Prehabilitation Program on Major Abdominal Surgery	Patients undergoing prehabilitation prior to colectomy showed positive physiologic effects and experienced fewer complications. The average savings of USD$21,946 per patient represents a significant cost

	offset for a prehabilitation program and should be considered for all patients undergoing surgery.
Barberan-Garcia et al. (2018) Personalised Prehabilitation in High-risk Patients Undergoing Elective Major Abdominal Surgery: A Randomized Blinded Controlled Trial.	Prehabilitation enhanced postoperative clinical outcomes in high-risk candidates for elective major abdominal surgery, which can be explained by the increased aerobic capacity
Lai et al. (2020) Estimating excess mortality in people with cancer and multimorbidity in the COVID-19 emergency.	First estimates of potential excess mortality among people with cancer and multimorbidity due to the COVID-19 emergency and demonstrate dramatic changes in cancer services. To better inform prioritization of cancer care and guide policy change, there is an urgent need for weekly data on cause-specific excess mortality, cancer diagnosis and treatment provision and better intelligence on the use of effective treatments for comorbidities.

References:

TCST (2017) Business case for Cancer Care Review: a four-point model for London. Link

TCST (2017) Template business case for lymphoedema services. Link

TCST (2020) Improving psychologically informed cancer care: implementing the London Integrated Cancer Psychosocial Care Pathway and the development of psycho-oncology services: A business case. Link

NHSE (2018) High-level business case template and guidance: Corporate services productivity programme Link

South West London STP (2020) How to Write a Business Case: Cancer Community of Practice for General Practice Nurses. Draft Guide (Link)

Department of Finance (Northern Ireland) (undated) Step by step economic appraisal guidance Link

HM Treasury (2018) Guide to developing the project business case Link

Macmillan (2019) Principles and guidance for prehabilitation Link

TCST (2019) Cancer Rehabilitation Integrated System Guidance, including mapping Report Link

Chapter 2: Cancer Prehab Resource

The Cancer Future NHS Collaborative Platform has a prehab specific resource page where you can find lots of good resource across England. You need to contact your cancer alliance for permission to obtain a login.

Video resource for prehab:

Note that prehab services may wish to stratify these resources for different cohorts of patients, before recommending these videos to cancer patients and their loved ones.

- NHS: series of videos introducing Pilates exercise and HIIT
- NHS fitness studio exercise videos
- The Royal Marsden Prehab team's series of video about exercising at home https://www.royalmarsden.nhs.uk/your-care/living-and-beyond-cancer/exercise-home
- The Royal Marsden Prehab team's video and podcase on eating well to keep fit https://www.royalmarsden.nhs.uk/your-care/living-and-beyond-cancer/eating-well-keep-fit
- Active Against Cancer online series of exercise videos https://www.activeagainstcancer.org.uk/online-classes/
- 5k your way: move against cancer – live Q&A https://5kyourway.org/lockdown-resources
- St Georges Prehab Team: Get Set 4 Surgery: An introduction to preparing for surgery and simple steps to aid recover https://youtu.be/Ucl6_MCI1LI
- St Georges Prehab Team: Get Set 4 Surgery: Preparing for surgery: dietary advice and eating well https://youtu.be/v2G2gI6uQ5A
- Royal College of Anaesthetist - Preparing for Surgery – Fitter better sooner https://rcoa.ac.uk/patient-information/preparing-surgery-fitter-better-sooner
- Ileostomy & Internal Pouch Association: Exercise with a stoma https://iasupport.org/about/research/

Blogs for prehab

Moving through mastectomy – how it was for me by Carolyn Garritt

Leaflets for prehab

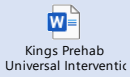
Greater Manchester: Prehab4cancer - Dietary advice for people participating in prehabilitation

low risk prehab
diet sheet 270619 (L

Chapter 3: Cancer Prehab Screening and Assessment tools

The following are the most common Cancer Prehab screening and assessment tools, with annotation on the purpose, the challenges and the adaption required during Covid.

Themes	Name/source	Abbrev	Purpose	Comments from specialist leads in London
Physical activity	International physical activity questionnaire IPAQ	IPAQ	The purpose of the questionnaires is to provide common instruments that can be used to obtain internationally comparable data on health–related physical activity.	GSTT: This tool is helpful in defining high, moderate or low activity levels and provides detail to determine if someone is meeting exercise recommendations
	Scottish physical activity screening questionnaire	SCOT-PASQ	The Scottish Physical Activity Screening Questionnaire (Scot-PASQ) provides a framework for meaningful physical activity conversations between health or social care professionals and people in their care. It helps identify how active someone is and informs what physical activity support is needed.	
	Godin Shephard Leisure Time Physical activity questionnaire	GSLTPAQ	The Godin-Shephard Leisure-Time Physical Activity Questionnaire is a short questionnaire that is often used to assess leisure time physical activity. It is used for classifying cancer survivors into active or insufficiently active categories	Kings: Recommends that it is the activity patients have done in the last week not pre-covid.

Themes	Name/source	Abbrev	Purpose	Comments from specialist leads in London
	Kings Prehab Universal Intervention Scoping 		King College Hospital specific tool	
	General Practice Physical Activity Questionnaire	GPPAQ	The GPPAQ is a validated screening tool, used in primary care to assess the physical activity levels of adults (16 to 74 years).	
Physical fitness	Duke Activity Status Index	DASI	The Duke Activity Status Index is a self-administered questionnaire that measures a patient's functional capacity. It can be used to get a rough estimate of a patient's peak oxygen uptake.	St Georges: Prehab Service used this systematically though pre-operative assessment for all patients and correlates with outcomes in METS study (very large international RCT). It can be completed by patients themselves
	Clinical Frailty Scale	CSF	The Clinical Frailty Scale (CFS) is a practical and efficient tool for assessing frailty	Kings and GSTT: Recommend that services ask patient to self-report for those seen virtually
	6 minute walk test	6MWT	The 6MWT measures the distance an individual is able to walk over a total of six minutes on a hard, flat surface. The goal is for the individual to walk as far as possible in six minutes. The individual is allowed to self-pace and rest as needed as they traverse	GSTT: Advises that this test cannot be carried virtually Kings: Advise that some apps such as EXI offer a self-administered version, but not tested in practice yet

Themes	Name/source	Abbrev	Purpose	Comments from specialist leads in London
			back and forth along a marked walkway.	
	Incremental shuffle walk test	ISWT	The ISWT is a valid symptom limited maximal test of functional capacity that relates strongly to VO2max during cardio-pulmonary exercise testing on a treadmill	RMH advises that this test cannot be carried virtually
	Timed Up and Go Test	TUG	The TUG is a simple test used to assess a person's mobility and requires both static and dynamic balance.	GSTT: advises that this test cannot be carried virtually
	30 second chair to stand test	30CST	is for testing leg strength and endurance in older adults. It is part of the Fullerton Functional Fitness Test Battery.	RMH: During Covid RMH is currenting using this assessment instead of ISWT. Advises that they also do a 5-minute seated warm up in case of any postural drop issues. Kings: Conducted this test over telephone and virtually
	60 second chair to stand test	60CST	is for testing leg strength and endurance in adults and older adults	GSTT: Use this in place of 6min WT for those who are seen virtually 5 minutes seated warm up is completed pre-test in case of postural drop issues

Themes	Name/source	Abbrev	Purpose	Comments from specialist leads in London
	3-point balance test (Component 1 from the Short Physical Performance Battery Measure (SPPB))	SPPB	The 3-point balance test can be used as part of a risk assessment tool to help identify balance impairment and level of support required to exercise.	GSTT: Use the balance component only in their virtual assessments to help determine any balance deficits.
Nutrition	Malnutrition Universal Screening Tool	MUST	'MUST' is a five-step screening tool to identify adults, who are malnourished, at risk of malnutrition (undernutrition), or obese. It also includes management guidelines which can be used to develop a care plan.	
	Nottingham Dietetic Feedback Form		This is a Patent Reported Outcome Measure for dietetic services	Kings: currently using this as PROMs
	NR514 Royal Marsden nutrition screening tool NR514 Nutrition Screening Tool (Adu	NR514	NR514 was developed to detect those who were already malnourished or at risk of malnutrition	
	BDA Oncology Specialist Group Outcome tool BDA Oncology Specialist Group Ou	BDA	British Dietetics Association's Oncology Specialist Group developed this tool to help to record and track patient's progress toward the goals set by themselves and by their dietician	

Themes	Name/source	Abbrev	Purpose	Comments from specialist leads in London
	Patient Generated subjective Global assessment	PG-SGA	The PG-SGA is a patient-reported instrument for assessment of nutrition status in patients with cancer.	
Mental Health	Patient Health Questionnaire	PHQ	PHQ is a diagnostic tool for mental health disorders used by health care professionals	NEL and NCL areas are currently using PHQ9 as outcome measures with a move to PHQ8 due to question about suicidality
	Generalised Anxiety Disorder assessment	GAD-7	The GAD-7 is a seven-item instrument that is used to measure or assess the severity of generalised anxiety disorder	NEL and NCL areas are currently using this as outcome measures
	Hospital Anxiety and Depression Scale	HADS	The HADS aims to measure symptoms of anxiety and depression	
Wellbeing	EQ-5D	EQ-5D	EQ-5D is a standardized instrument for measuring generic health status. This tool is also being used as part of the National Cancer Quality of Life Survey	GSTT: You will need access to the EQ-5D calculator to get a meaningful result
	Fatigue	EORT QLQ-FA12	The purpose of EORT QLQ-FA12 is to assess physical, emotional and cognitive fatigue	
	Functional Assessment of Chronic Illness Therapy - Fatigue	FACIT-F	13-item scale that assesses self-reported fatigue and its impact on daily activities and function.	

Themes	Name/source	Abbrev	Purpose	Comments from specialist leads in London
	General Self-efficacy scale	GSE	The scale was created to assess a general sense of perceived self-efficacy. The aim is to test the general belief in oneself to solve problems and reach goals.	
	Patient activation measures	PAM	The PAM is a 22-item measure that assesses patient knowledge, skill, and confidence for self-management of their long-term condition	
	Readiness to change	The Physical activity stage of change question naire	Is a 4 question self-reported measure that determines how ready someone is to change their health behaviours	GSTT: important to determine in use with motivational interviewing to help change health behaviour