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Evaluating a cancer rehabilitation service for people diagnosed with lung cancer

Submission date
18/06/2026

Recruitment status
Recruiting

Registration date
25/06/2026

Overall study status
Ongoing

Last Edited
25/06/2026

Condition category
Cancer

[X] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims

Lung cancer can affect physical fitness, quality of life, and the ability to complete cancer treatment. Although rehabilitation and wellbeing support may help people manage the effects of cancer and its treatment, access to these services is often limited. CanBenefit 3 aims to evaluate whether a personalised cancer rehabilitation service can be successfully integrated into routine NHS lung cancer care. The study will assess referral rates, patient engagement, acceptability, and the feasibility of collecting routine outcome data, while also exploring potential effects on physical function, wellbeing, and cancer treatment outcomes.

Who can participate?

Patients aged 18 years and over diagnosed with lung cancer who are eligible for referral to the cancer rehabilitation service at participating NHS Trusts. Eligibility will be determined by the clinical team according to the study protocol and local service criteria.

What does the study involve?

Clinicians will identify eligible patients during routine care and refer them to an exercise physiologist. Patients who choose to attend will receive an initial assessment and a personalised exercise and wellbeing programme delivered primarily through the Rehab Guru platform, with paper-based options available if preferred. Follow-up appointments will take place at about 3 and 6 months. Routine clinical and patient-reported outcome data will be collected at these appointments and from medical records up to 12 months after referral. Some patients and staff may also be invited to take part in a one-off interview to share their experiences of the service.

What are the possible benefits and risks of participating?

Participants may benefit from receiving personalised exercise and wellbeing support tailored to their needs. The information collected may help improve rehabilitation services for people with lung cancer in the future. The risks are expected to be low and are similar to those associated with routine rehabilitation services, such as temporary muscle soreness, fatigue, breathlessness, or minor exercise-related injury. Programmes are tailored to individual needs and monitored by trained professionals to minimise risks.

Where is the study run from?
The study is coordinated by researchers at Hull York Medical School, University of Hull, and supported by the Hull Health Trials Unit. It is delivered through participating NHS Trusts across Yorkshire, England.

When is the study starting and how long is it expected to run for?
October 2026 to September 2028

Who is funding the study?
Yorkshire Cancer Research (YCR) (UK)

Who is the main contact?
Dr Cynthia Forbes, Cindy.Forbes@hyms.ac.uk

Plain English summary under review with external organisation

Contact information

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Scientific, Public

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Additional identifiers

Integrated Research Application System (IRAS)
367879

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74811

Grant Code
RA/2024/R2/117

Study information

Scientific Title
CanBenefit 3: Implementation of tailored wellbeing advice as standard care among people diagnosed with lung cancer

Acronym
CanBenefit 3

Study objectives
Primary objectives:
1. To assess the proportion of eligible patients receiving a referral, and the proportion accepting referral within the evaluation period
2. To assess levels of engagement with the programme via the Rehab Guru platform and/or number of workout sessions completed
3. To assess the safety of the programme through patient-reported symptoms and recording of adverse events in routine clinical and cancer rehabilitation service documentation during the 6-month programme period
4. To assess the acceptability of the programme and referral pathway among patients and staff, using qualitative process evaluation interviews and service user feedback surveys
5. To assess the ability to obtain routinely collected data for analysis and data quality at baseline, 3, 6 and 12 months via routine NHS medical records and cancer rehabilitation service documentation

Secondary objectives:
To describe changes in patient health status from baseline to 6 months in order to determine the potential impact of a cancer rehabilitation service on changes in the following:
1. Clinical outcomes (cancer treatment completion rates)
2. Physical function (cardiovascular endurance, muscular strength and endurance)
3. Service user patient-reported outcomes (cancer-specific quality of life, breathlessness scores)
4. Physical activity, nutrition, and sleep behaviours via service user feedback surveys

Ethics approval required
Ethics approval required

Ethics approval(s)
Not yet submitted

Primary study design
Interventional

Study design
Non-randomized study

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Lung cancer

Interventions
This is a multi-centre feasibility study taking place in two NHS Trusts across Yorkshire. It aims to deliver a tailored cancer rehabilitation service embedded within existing NHS cancer services. The study will explore whether this service can be delivered and how it may influence outcomes and quality of life for people with lung cancer. Patients will be identified by their direct clinical team at any stage after diagnosis and referred to an NHS Trust exercise physiologist (EP). The EP will send referral letters to consecutively referred patients, with approximately 300 patients referred over the study period. If the referral is accepted, patients will attend appointments with the EP at baseline, 3 months and 6 months. At these appointments, a personalised home-based exercise programme will be created and adapted based on their needs using a secure online platform (Rehab Guru). At each appointment, information will be collected as part of routine care. This includes details about cancer diagnosis and treatment, body measurements (such as height, weight and BMI), physical function (such as strength and mobility), and questionnaires on quality of life, sleep, lifestyle, and wellbeing. Patients may also complete short symptom rating scales (for example, pain, fatigue, breathlessness, and mood). 12-month outcome data will be recorded within NHS Trust systems and the Rehab Guru platform as part of routine care. At the end of the study, a pseudonymised dataset will be securely transferred to the University of Hull Data Safe Haven for analysis, with fully anonymised datasets derived for reporting where appropriate. Patients will take part in the programme as part of routine NHS care. The study will use pseudonymised data collected through this service to understand how well it works in practice. Some patients (including those who accept or decline the service) and healthcare professionals may be invited to take part in a one-off interview to share their experiences. Those who take part in interviews will be given a Participant Information Sheet and asked to provide informed consent.

Intervention Type
Behavioural

Primary outcome(s)
1. Referral uptake: Proportion of eligible patients referred to and accepting referral to the cancer rehabilitation service, measured using service referral and attendance records during the 12-month study period.
2. Programme engagement: Engagement with the rehabilitation programme, measured using Rehab Guru log-ins, exercise completion records and appointment attendance over 6 months.
3. Acceptability and feasibility: Acceptability, safety and feasibility of the rehabilitation service,

measured using qualitative interviews, service user feedback surveys, clinical records and implementation data throughout the study period.

Key secondary outcome(s)
1. Cancer treatment outcomes: treatment completion and delivery measured from medical records from baseline to 12 months.
2. Physical function measured using handgrip strength, standing balance, timed up and go (TUG), 30-second sit-to-stand (SPPB), bioelectrical impedance analysis (BIA) and the Australian Karnofsky Performance Scale (AKPS) at baseline, 3 months and 6 months.
3. Quality of life and nutritional status measured using EQ-5D-5L, EQ-VAS and Patient-Generated Subjective Global Assessment (PG-SGA) at baseline, 3 months and 6 months
4. Physical activity measured using the Short Questionnaire to Assess Health Enhancing Physical Activity (SQUASH), measured at baseline, 3 months and 6 months
5. Capability, opportunity and motivation for physical activity, measured using three COM-B/TDF-informed items at baseline, 3 months and 6 months
6. Sleep quality measured using the Pittsburgh Sleep Quality Index (PSQI) at baseline, 3 months and 6 months
7. Healthcare utilisation measured using healthcare contacts recorded in medical records from baseline to 12 months
8. Survival measured using date and cause of death recorded in clinical records from baseline to 12 months

Completion date
30/09/2028

Eligibility

Key inclusion criteria
1. Adults aged 18 years or older
2. Lung cancer, any stage, any type
3. Receiving any combination of chemotherapy, radiotherapy, and targeted therapy alongside surgery (if applicable)
4.Patients being treated curatively, palliatively, or with best supportive care

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
18 Years

Upper age limit
100 Years

Sex
All

Total final enrolment

0

Key exclusion criteria
Any condition or circumstance which, in the opinion of the clinician, would make referral to the service inappropriate. This includes:
1. An unstable or acute medical condition (for example severe uncontrolled symptoms, unresolved pulmonary embolism, or decompensated heart failure), as determined by the participating clinical team
2. An underlying severe chronic condition or disease where systemic anti-cancer treatment is not considered appropriate by the treating oncologist

Date of first enrolment
01/10/2026

Date of final enrolment
30/09/2027

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Hull University Teaching Hospitals NHS Trust
Hull Royal Infirmary
Anlaby Road
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HU3 2JZ

Study participating centre
York and Scarborough Teaching Hospitals NHS Foundation Trust
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Sponsor information

Organisation

University of Hull

ROR
https://ror.org/04nkhwh30

Funder(s)

Funder type
Government

Funder Name
Yorkshire Cancer Research

Alternative Name(s)
YCR

Funding Body Type
Government organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated and/or analysed during the current study will be available upon reasonable request from the chief investigator (Dr Cynthia Forbes; Cindy.Forbes@hyms.ac.uk). Requests will be considered on a case-by-case basis and must be consistent with the study objectives and relevant ethical approvals. Only fully anonymised data will be shared. Data will become available following publication of the main study results and will be retained for a minimum of five years after study completion. Access will be subject to applicable legal, ethical and governance requirements, including data protection legislation and institutional policies.

IPD sharing plan summary
Available on request