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A phase II trial of pembrolizumab in NSCLC PS2 patients

Submission date 08/08/2016	**Recruitment status** No longer recruiting	[X] Prospectively registered [_] Protocol [_] Statistical analysis plan [X] Results [_] Individual participant data
Registration date 11/08/2016	**Overall study status** Completed	
Last Edited 06/02/2024	**Condition category** Cancer	

Plain English summary of protocol
https://www.cancerresearchuk.org/about-cancer/find-a-clinical-trial/a-trial-looking-at-pembrolizumab-for-people-with-non-small-cell-lung-cancer-peps2

Contact information

Type(s)
Public

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Additional identifiers

Clinical Trials Information System (CTIS)
2015-002241-55

ClinicalTrials.gov (NCT)
NCT02733159

Protocol serial number

31307

Study information

Scientific Title
A phase II trial of pembrolizumab in patients with non-small cell lung cancer and a performance status of two

Study objectives
The aim of this study is to:
1. Determine that pembrolizumab is safe and tolerable at the selected dose
2. Detect the response rate, disease control rate and durability of these in this population of patients treated with pembrolizumab

Ethics approval required
Old ethics approval format

Ethics approval(s)
West Midlands - Edgbaston Research Ethics Committee, 02/02/2016, ref: 16/WM/0010

Study design
Non-randomised; Interventional; Design type: Treatment, Screening, Diagnosis, Prevention, Drug, Imaging, Immunotherapy, Physical

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Specialty: Cancer, Primary sub-specialty: Lung; UKCRC code/ Disease: Cancer/ Malignant neoplasms of respiratory and intrathoracic organs

Interventions
Pembrolizumab will be administered to all participants as a 30 minute IV infusion, at a flat dose of 200 mg, at a dosing interval of every 3 weeks for a maximum of 2 years.

Follow up calls will be made every 4 weeks for 6 months then every 12 weeks to record treatment after progression and death date. Participants also undergo CT scanning every 9 weeks from baseline until disease progression, up to maximum of 2 years.

Intervention Type
Drug

Phase
Phase II

Drug/device/biological/vaccine name(s)
Pembrolizumab

Primary outcome(s)
1. Toxicity is measured by recording adverse events in relation to each cycle of treatment and grading according to CTCAE criteria continuously from baseline to 6 months post-treatment
2. Response rate is measured using CT scanning every 9 weeks from baseline until disease progression, up to maximum of 2 years

Key secondary outcome(s))
1. Best objective response rate (ORR) is measured using CT scanning every 9 weeks from baseline until disease progression, up to maximum of 2 years
2. Health related quality of life is measured using FACT-L Quality of Life Questionnaire at each treatment cycle i.e. every 3 weeks until study completion (up to a maximum of 2 years)
3. Time to Progression (TTP), defined as the time from commencement of trial treatment to the date of CT scan when progressive disease first recorded, is measured through CT scanning every 9 weeks from baseline until disease progression, up to maximum of 2 years
4. Progression-free survival time (PFS), defined as the time from commencement of trial treatment to the date of CT scan when progressive disease first recorded or date of death without previously recorded progression, is measured using RECIST 1.1 from baseline to up to maximum of 2 years
5. Overall survival time (OS), defined as the time from commencement of trial treatment to the date of death, is measured by patient survival until date of death
6. Duration of response (DoR), defined as the time from the CT scan when complete or partial response is first confirmed to the date of the subsequent CT scan when progressive disease is first confirmed or date of death without previously recorded progression, is calculated by RECIST 1.1 from baseline until disease progression, up to maximum of 2 years

Completion date
01/01/2022

Eligibility

Key inclusion criteria
1. Patients must have completed all standard of care therapy that the treating oncologist deems appropriate. All lines of therapy will be allowed
2. Histologically confirmed NSCLC where it is possible to assess PD-L1 status on tumour biopsy. Biopsy must be within 70 days of first treatment with pembrolizumab. All patients who have had systemic therapy since the biopsy must have a repeat biopsy that is evaluable for PD-L1.
3. Patients must have a performance status of 2 on the ECOG Performance scale with no deterioration over the previous 2 weeks assessed by consenting physician
4. Life expectancy >12 weeks
5. Uni-dimensionally measurable disease according to RECIST version 1.1
6. CT scan of chest and abdomen within 28 days of starting Pembrolizumab demonstrating measurable disease as per RECIST version 1.1
7. Demonstrate adequate haematological and organ function as defined below. All screening tests should be performed within 7 days of treatment
8. Age 18 years and over
9. Provision of signed and dated, written informed consent prior to any study specific procedures, sampling and analyses
10. Patients must agree to the use of contraception as detailed in protocol and patient information sheet
11. System laboratory values:

11.1. Haematological
Absolute neutrophil count ≥ 1.5 x 109/L
Haemoglobin ≥ 90 g/L or ≥5.6 mmol/L
Platelets ≥ 100 x 109/L
11.2. Hepatic function
Total serum bilirubin ≤ 1.5 x ULN
Alanine transferase (ALT) ≤ 2.5 x ULN.
Aspartate transferase (AST) ≤ 2.5 x ULN.
11.3. Renal function
Creatinine clearance <1.5 times ULN concurrent with creatinine clearance >50 ml/min (calculated by Cockcroft and Gault equation or alternative method). If this is ≤50 ml/min then an isotopic GFR may be undertaken and must be >50 ml/min.

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
All

Total final enrolment
62

Key exclusion criteria
1. Untreated symptomatic brain or leptomeningeal metastatic disease
2. Medical or psychiatric conditions comprising informed consent
3. Any medical condition which in the opinion of the investigator would compromise the ability of the patient to participate in the trial or which would jeopardise compliance with the protocol
4. Patient who has had chemotherapy, radioactive or biological cancer therapy within 4 weeks prior to the first dose of study therapy, or who has not recovered to CTCAE grade 1 or better from the adverse events due to cancer therapeutics administered more than 4 weeks earlier. Patient who has had erlotinib, gefitinib, afatinib, or crizotinib within 1 week prior to the first dose of study therapy, or who has not recovered to CTCAE Grade 1 or better from the adverse events due to any of these drugs administered more than 1 week earlier. Patient who has had ipilimumab therapy may be enrolled if requirements specified in Inclusion Criterion are met.
5. Active autoimmune disease that has required systemic treatment in past 2 years (i.e. with use of disease modifying agents, corticosteroids or immunosuppressive drugs). Replacement therapy (e.g. thyroxine, insulin, or physiologic corticosteroid replacement therapy for adrenal or pituitary insufficiency, etc.) is not considered a form of systemic treatment.
6. Has a diagnosis of immunodeficiency or is receiving systemic steroid therapy or any other form of immunosuppressive therapy within 7 days prior to the first dose of trial treatment. Replacement therapy (e.g. thyroxine, insulin, or physiologic corticosteroid replacement therapy for adrenal or pituitary insufficiency, etc.) is not considered a form of systemic treatment.

7. Patient has risk factors for bowel obstruction or bowel perforation (examples include but not limited to a history of acute diverticulitis, intra-abdominal abscess and abdominal carcinomatosis)
8. Patient has a known history of malignancy, unless the patient has undergone potentially curative therapy with no evidence of that disease for 5 years
9. Previous history of pneumonitis or significantly reduced transfer coefficient (KCO)
10. Female patients of child bearing potential should be using adequate contraceptive measures, should not be breast feeding and must have a negative pregnancy test prior to start of dosing
11. Patient previously had a severe hypersensitivity reaction to treatment with another monoclonal antibody
12. Patient had prior treatment targeting PD-1: PD-L1 axis or was previously randomized in any Pembrolizumab trial
13. Patient is positive for Human Immunodeficiency Virus (HIV) (HIV 1/2 antibodies), active Hepatitis B (HBsAg reactive) or Hepatitis C (HCV RNA (qualitative) is detected); patients with negative Hepatitis C antibody testing may not need RNA testing
14. Known history of tuberculosis
15. Patient has an active infection requiring therapy
16. Has received a live vaccine within 30 days prior to the first dose of trial treatment
17. Patient is, at the time of signing informed consent, a regular user (including "recreational use") of any illicit drugs or had a recent history (within the last year) of substance abuse (including alcohol)
18. Patients with symptomatic ascites or pleural effusion. A patient who is clinically stable following treatment for these conditions (including therapeutic thoraco- or paracentesis) is eligible

Date of first enrolment
30/09/2016

Date of final enrolment
13/02/2018

Locations

Countries of recruitment
United Kingdom

England

Wales

Study participating centre
University College London Hospital
1st Floor Central
250 Euston Road
London
United Kingdom
NW1 2PG

Study participating centre
Southampton University Hospital
Tremona Road
Southampton
United Kingdom
SO16 6YD

Study participating centre
Royal Marsden Hospital
Fulham Road
London
United Kingdom
SW3 6JJ

Study participating centre
Barts Cancer Institute
Queen Mary University of London
Old Anatomy Building Basement
Room 2
Charterhouse Square
London
United Kingdom
EC1M 6BQ

Study participating centre
The Christie NHS Foundation Trust
550 Wilmslow Road
Withington
Manchester
United Kingdom
M20 4BX

Study participating centre
Maidstone Hospital
Hermitage Lane
Maidstone
United Kingdom
ME16 9QQ

Study participating centre

Velindre Cancer Centre
Whitchurch
Cardiff
United Kingdom
CF14 2TL

Study participating centre
Western General Hospital
Crewe Road South
Edinburgh
United Kingdom
EH 4 2XU

Study participating centre
Queen Elizabeth Hospital
Mindelsohn Way
Birmingham
United Kingdom
B15 2TH

Study participating centre
United Lincolnshire Hospitals NHS Trust
Lincoln
United Kingdom
LN2 5QY

Sponsor information

Organisation
University of Birmingham

ROR
https://ror.org/03angcq70

Funder(s)

Funder type
Industry

Funder Name
Merck Sharp and Dohme

Alternative Name(s)
MSD United Kingdom, Merck Sharp & Dohme, Merck Sharp & Dohme Corp., MSD

Funding Body Type
Private sector organisation

Funding Body Subtype
For-profit companies (industry)

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
Scientifically sound proposals from appropriately qualified researchers will be considered for data sharing. Requests should be made by returning a Data Sharing Request Form to newbusiness@trials.bham.ac.uk; this captures the research requirements, statistical analysis plan, and intended publication schedule. Requests will be reviewed by the Cancer Research UK Clinical Trials Unit (CRCTU) Directors in discussion with the Chief Investigator (CI), Trial Management Group (TMG) and independent Trial Steering Committee (TSC). They will consider the scientific validity of the request, qualifications of the researchers, CI, TMG & TSC views, consent arrangements, practicality of anonymizing the requested data & contractual obligations. If supportive of the request, and where not already obtained, Sponsor consent for data transfer will be sought before notifying applicants of the outcome. It is anticipated that applicants will be notified within 3 months of receipt of the original request.

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/09/2020	23/03/2020	Yes	No
HRA research summary			28/06/2023	No	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Plain English results			20/01/2021	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes