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A clinical study in order to compare the effectiveness and safety of two different treatments in patients with newly diagnosed primary immune thrombocytopenia

Submission date
06/07/2023

Recruitment status
No longer recruiting

Registration date
04/09/2023

Overall study status
Completed

Last Edited
18/11/2025

Condition category
Haematological Disorders

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

Plain English summary of protocol

Background and study aims
RODEX is investigating immune thrombocytopenia (ITP), and an autoimmune disease where the immune system attacks important blood cells called platelets, which are essential for normal clotting. Patients with ITP have reduced numbers of platelets and are at risk of bleeding. A course of corticosteroids (steroids – a man-made version of a hormone the body makes naturally) is recommended as the first line of treatment for adults with newly diagnosed ITP. Most patients with ITP respond to corticosteroids with a rise in platelet count, but improvements are usually temporary and the majority of patients will relapse. The objective of RODEX is to find out if a two-drug combination of corticosteroids (dexamethasone) plus a medicine called romiplostim is better than dexamethasone alone for the first-line of treatment of ITP. Romiplostim is a thrombopoietin-receptor agonist (TPO-RA). Thrombopoietin (TPO) is the natural chemical that the body produces to tell the bone marrow to make more platelets. TPO-RA's are treatments that act like the body's own TPO to increase the number of platelets that are produced.

Who can participate?
Adult (≥18 years old) patients recently diagnosed with ITP with a low platelet count and no prior ITP treatment

What does the study involve?
RODEX will recruit up to 126 patients at up to 30 hospital sites in the European Economic Area (EEA), including Spain and Italy, and up to 15 sites and 26+ participants in England, Wales and Scotland, UK. Adult patients will be eligible to take part if they meet the eligibility criteria. Participants will be randomly allocated by a computer to receive a course of dexamethasone alone (control arm) or dexamethasone pus romiplostim (investigational arm) and followed up for up to 2 years (screening, day 1, week 8, week 12, month 6, month 12, and end of Study Visit) to find out if dexamethasone plus romiplostim can improve long-term treatment response and avoid bleeding. Study treatments and visits will vary slightly dependent on the study arm.

What are the possible benefits and risks of participating?
You will not be paid or receive any incentive for participating in this study. The additional study assessments you receive may help to identify health conditions and care options that would not otherwise be identified through your routine care. However, the study may not benefit you personally. We hope that the research could in the future improve the care and prognosis of other patients with ITP.

The study PIS lists the main risks and burdens of the study, including common side effects of the study drugs and other medications that should not be taken with the study treatment, and other types of risks and burdens associated with the study. The PIS refers the participant to the IMP (romiplostim and dexamethasone) package inserts and treating doctor for further information about drug-related risks and toxicities. The PIS risks and side effects section text is based on information provided in the submitted SPCs, IBs, and Amgen Risks and Discomforts mandated text.

The most frequently observed side effects of romiplostim are:
• Hypersensitivity reactions (including rare cases of rash, urticaria and angioedema)
• Headache and dizziness
• Difficulty in sleeping
• Abdominal pain, upset stomach and vomiting
• Pain in extremities (arms and legs), muscles and bones
• Progression of existing Myelodysplastic Syndrome (MDS; A group of disorders resulting from poorly formed or dysfunctional blood cells that cause tiredness, difficulty in breathing, pale skin, frequent infections, easy bruising and bleeding)

Among the more serious side effects of romiplostim are:
• Low platelets (a type of white blood cells that helps fight infections)
• High platelets leading to bleeding
• Increased likelihood of a blood clot
• Increased fibres in the bone marrow

The frequency of side-effects to dexamethasone are less well documented but include:
• Difficulty sleeping
• Changes in mood (euphoria most frequent, but also including negative feelings)
• Increased blood sugars
• Stomach irritation and intestinal perforation
• Increased susceptibility to infection and masking of infection symptoms
• Changes in white blood cells (defences) and coagulation
• Hypersensitivity reactions
• Endocrine disorders, such as weight gain
• Cardiovascular disorders (arterial hypertension, bradycardia, deterioration of severe heart failure, and difficulty regulating blood pressure)

These side effects will be minimised via a strict drug dosing and dose reduction schedule and regular toxicity assessment reporting throughout the study treatment period. Participants who have significant side effects will stop treatment but be followed up for safety reasons. Safety events will be monitored regularly in real-time and by oversight groups.

Dexamethasone is known to affect the development of male sperm and the female ovarian cycle. The effects of Romiplostim on sperm and the ovarian cycle are unclear. The ability of either drug to cross the placental barrier between mother and child, and the effects of either

drug on the unborn child are unclear. So the drugs are only recommended to be given to pregnant mothers if the benefit outweighs the risks for the mother and child. Participants of childbearing age will have the inconvenience of taking contraception to avoid pregnancy of female participants and female partners of male participants. Participants will be given strict contraception guidance and advised that they should avoid pregnancy. Participants unwilling to use suitable contraception will not be permitted to participate. Individuals who become pregnant during and up to 30 days after the participant stopped study treatment will be asked to provide optional consent for the collection of pregnancy data to support follow-up for safety reasons.

Risks related to other study procedures include:
• Taking part will take some time that may not otherwise have been taken, for example, to complete the consent form, attend extra visits for study assessments and blood sample collections, and complete the study questionnaires.
• Blood collection can occasionally be associated with dizziness, hematoma formation, infection at the injection site, needle phobia, and multiple attempts punctures to locate the veins.
• Quality of life questionnaires may include topics and questions that are upsetting to some patients. Patients may choose not to complete individual questions and/or questionnaires. If they are upset by this part of the study they may seek support from their study doctor/nurse who will signpost them to appropriate local resources.

The number of study-specific assessment visits, blood sample collections, and questionnaires has been restricted to the minimum number required to answer the study questions and, thus, reduce the impact of these additional burdens.

Where is the study run from?
Bristol Medical School, University of Bristol (UK)

When is the study starting and how long is it expected to run for?
July 2023 to October 2026

Who is funding the study?
Andalusian Public Foundation for Health Research Management of Seville (FISEVI) (Fundación Pública Andaluza para la Gestión de la Investigación en Salud de Sevilla)

Who is the main contact?
RODEX UK National Coordinator, RODEX@cardiff.ac.uk.uk

Contact information

Type(s)
Public, Scientific

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Principal investigator

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Additional identifiers

ClinicalTrials.gov (NCT)
NCT05325593

Clinical Trials Information System (CTIS)
2021-006970-22

Integrated Research Application System (IRAS)
1007244

Central Portfolio Management System (CPMS)
57733

Study information

Scientific Title
A multicentre, randomized, open-label study of romiplostim plus dexamethasone vs dexamethasone in patients with newly diagnosed primary immune thrombocytopenia

Acronym
RODEX

Study objectives
Primary objectives:
To evaluate the superiority of romiplostim plus dexamethasone vs dexamethasone alone after 6 months (≥180 days) from treatment cessation in patients with newly primary immune thrombocytopenia (ITP) in terms of sustained response off any ITP treatment (6mSROT-50) and without WHO grade 2 or more bleeding.

Secondary objectives:
To evaluate the superiority of experimental arm after 6 and 12 months from treatment cessation in terms of sustained response off any ITP treatment(6mSROT-30,12mSROT-30 and 12mSROT-50)and without WHO grade 2 or more bleeding
To evaluate the superiority of experimental arm in terms of complete response,response,global response and response within the target range
To compare the time to first response,the proportion of patients with early response and initial response
To compare the duration of platelet response,the time to loss of response in patients who achieved response,the proportion of patients requiring any rescue treatment along the study period
To evaluate and compare proportion of treatment failure and time to treatment failure
To evaluate the safety and tolerability
To compare the difference between study arms in the mean change in patients bleeding and the change in patients quality of life
To describe and compare healthcare resources use and loss of productivity

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 01/09/2023, Wales Research Ethics Committee 1 (Health and Care Research Wales Support and Delivery Centre, Castlebridge 4, 15-19 Cowbridge Road East, Cardiff, CF11 9AB, United Kingdom; +44 292 2940931; Wales.REC1@wales.nhs.uk), ref: 23/WA/0199

Primary study design
Interventional

Study design
Randomized controlled open-label parallel-group study

Study type(s)
Efficacy, Quality of life, Safety, Treatment

Health condition(s) or problem(s) studied
Primary immune thrombocytopenia

Interventions
Participants are assigned to groups via a randomisation process that will be stratified by site with a 1:1 allocation to either the investigational or comparator trial arm. Investigational arm (dexamethasone plus romiplostim): dexamethasone tablet taken orally a dose of 40mg daily on days 1-4 of the first cycle, plus a single subcutaneous romiplostim injection self-administered at home by the participant and/or administered in clinic by a healthcare professional weekly at a starting dose of 3mcg/kg calculated on current body weight and adjusted on a weekly basis following strict protocol dosing rules according to platelet counts. Participants will remain on treatment for up to 12 months. Comparator arm (dexamethasone only): dexamethasone tablet is taken orally at a dose of 40mg daily on days 1-4 for up to 3 cycles every 14 to 28 days. Participants will remain on treatment for up to 3 months. Participants in both arms will be followed up for up to two years. Participants will be randomised on a trial 1:1 basis by site.

Intervention Type
Drug

Phase
Phase III

Drug/device/biological/vaccine name(s)
Romiplostim, dexamethasone

Primary outcome(s)
The proportion of patients achieving 6mSROT-50 at 6 months (180 days) from treatment cessation.

Definition of 6mSROT-50: platelets higher than or equal to 50x109/L in the absence of any ITP treatment including any rescue treatment for at least 6 consecutive months (≥180 days) from treatment cessation and without WHO grade 2 or more bleeding.

Key secondary outcome(s)
1. The proportion of patients achieving 6mSROT-30 at 6 months (180 days) from treatment cessation
2. The proportion of patients achieving 12mSROT-50 at 12 months (365 days) from treatment cessation
3. The proportion of patients achieving12mSROT-30 at 12 months (365 days) from treatment cessation
4. The proportion of patients with complete response (CR) at 6 months (Day 180), at 12 months (Day 365) from randomisation and at End of study Visit (visit 12 months after the last dose of study treatment). This will be evaluated in the total sample and in the absence of any rescue treatment
5. The proportion of patients with response (R) at 6 months (Day 180), at 12 months (Day 365) from randomisation and at end of study Visit (visit 12 months after the last dose of study treatment). This will be evaluated in the total sample and in the absence of any rescue treatment.
6. The proportion of patients with global response (GR) at 6 months (Day 180), at 12 months (Day 365) from randomisation and End of study Visit (visit 12 months after the last dose of study treatment). This will be evaluated in the total sample and in the absence of any rescue treatment.
7. The proportion of patients with response within the target range (TR) at 6 months (Day 180), and at 12 months (Day 365) from randomisation and end of study Visit (visit 12 months after the last dose of study treatment). This will be evaluated in the total sample and in the absence of any rescue treatment.
8. The median time to first response defined as the time from randomization to first response (R) in the absence of any rescue treatment. This will be evaluated in the total sample and in the absence of any rescue treatment.
9. The proportion of patients with early response (ER) and initial response (IR)
10. Mean maximum number of consecutive days with platelet response (CR, R, GR and TR) along the study period. This will be evaluated in the total sample and in the absence of any rescue treatment.
11. Mean number of days with platelet response (CR, R, GR and TR) along the study period. This will be evaluated in the total sample and in the absence of any rescue treatment.
12. The proportion of patients who need rescue treatments and proportion and time to treatment failures

13. The time to loss of response (LoR) in patients who achieved response
14. The proportion of patients requiring any rescue treatment along the study period
15. The proportion of patients with adverse events (AEs), including serious adverse events (SAEs) and laboratory safety parameters. AEs will be graded according to National Cancer Institute Common Terminology Criteria for Adverse Events (CTCAE) version 5.0. Bleeding events will be carefully monitored.
16. Mean change in patients' bleeding from screening to Day 1, Week 8, Week 12, Month 6, Month 12 and End of study Visit (visit 12 months after the last dose of study treatment) assessed with the ITP-bleeding tool.
17. The mean change in patients' quality of life from baseline Day 1 (the day of administration of the first dose of study medication) to Week 8, Month 6 (Day 180), Month12 (Day 365) from randomisation and End of study Visit (visit 12 months after the last dose of study treatment) assessed withSF-36v2, FACIT-F and ITP-PAQ in both arms.
18. Healthcare resources use (HRU) from treatment initiation to end of study (outpatient visits and home health care, hospitalizations and emergency visits, diagnostic procedures, pharmacological and non-pharmacological treatments and HRU related to management of adverse drug reactions) and loss of productivity (number of days of absenteeism from school or work and associated cost).

• Definition of 6mSROT-30: platelets higher or equal than 30x109/L in the absence of any ITP treatment including any rescue treatment for at least 6 consecutive months (≥180 days) from treatment cessation and without WHO grade 2 or more bleeding.
• Definition of 12mSROT-50: platelets higher or equal than 50x109/L in the absence of any ITP treatment including any rescue treatment for at least 12 consecutive months (≥365 days) from treatment cessation and without WHO grade 2 or more bleeding.
• Definition of 12mSROT-30: platelets higher or equal than 30x109/L in the absence of any ITP treatment including any rescue treatment for at least 12 consecutive months (≥365 days) from treatment cessation and without WHO grade 2 or more bleeding.
• Definition of CR: platelet count ≥100x109/L and absence of bleeding symptoms.
• Definition of R: platelet count between 100x109/L and 30x109/L and at least doubled from baseline and absence of bleeding symptoms.
• Definition of GR: CR or R.
• Definition of TR: platelet count between ≥30x109/L and ≤400x109/L.
• Definition of ER: proportion of patients with platelet count higher or equal than 30x109/L and at least double than baseline at first week (Day 7) from randomisation.
• Definition of IR: proportion of patients with platelet count higher or equal than 30x109/L in the first month (Day 30) from randomisation.
• Definition of LoR: number of days from the first time the patient achieved a platelet count ≥30x109/L until platelet count dropped below 30x109/L measured on 2 occasions with more than 1 day apart or presence of bleeding.

Completion date
24/10/2026

Eligibility

Key inclusion criteria
1. Age ≥18 years of age at the time of signing informed consent.
2. Newly diagnosis of primary ITP according to the International Working Group assessment and previously untreated for ITP.
3. Platelet counts <30x10^9/L or ITP with platelet counts <50x10^9/L and concomitant bleeding

symptoms.
4. Serum creatinine concentration ≤1.5 mg/dL.

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
18 Years

Upper age limit
100 Years

Sex
All

Total final enrolment
129

Key exclusion criteria
1. WHO performance status >
2. Previous therapy with rituximab (within 3 months previous to study enrollment), corticosteroids or therapy with other immunomodulating agents within 1 month before enrolment; prior use of hematopoietic analogs or fostamatinib for any other reason than ITP three months before enrolment.
3. Previous use of romiplostim, PEG-recombinant human (rHu) megakaryocyte growth and development factor, eltrombopag, recombinant human anti-thrombopoietin (rHuTPO), or any platelet-producing agent for three months prior to enrolment.
4. Alkylating agents within 8 weeks before the screening visit or anticipated use during the time of the proposed study.
5. Splenectomy within 3 months of the screening visit or planned splenectomy during the study period.
6. Abnormal renal function (serum creatinine > 1.5 mg/dL).
7. Active hepatic disease evidenced by alanine aminotransferase [ALT] or aspartate aminotransferase [AST] levels >5 times the upper limit of normal (it will only be necessary to determine one of the two transaminases).
8. Severe chronic liver disease as evidenced by, but not limited to, any of the following: International Normalized Ratio (INR) > 1.4, hypoalbuminemia, portal vein hypertension including the presence of otherwise unexplained splenomegaly and history of esophageal varices.
9. Patients with known IgM seropositive tests for cytomegalovirus and/or Epstein-Barr virus in the previous month.
10. Patients with an active viral infection at screening for Hepatitis B Virus (HBV), Hepatitis C Virus (HCV) or detectable virus charge of HIV.
11. Intolerance to dexamethasone.
12. History of a bone marrow stem cell disorder.
13. Active or prior malignancy except adequately treated (i.e., complete surgical excision with

negative margins) basal cell carcinoma.
14. History of Helicobacter pylori by urea breath test or stool antigen test within 6 months of enrollment, if available.
15. History of myelodysplastic syndrome, systemic lupus erythematosus, or autoimmune cytopenia.
16. History of antiphospholipid antibody syndrome.
17. History of disseminated intravascular coagulation, hemolytic uremic syndrome, or thrombotic thrombocytopenic purpura.
18. History of deep or superficial venous thromboembolism in the last 12 months or stroke, acute ischaemic heart disease or acute peripheral vascular disease in the last 6 months.
19. Hypersensitivity to any recombinant Escherichia coli-derived product (e.g., Infergen, Neupogen, Somatropin, and Actimmune) or known sensitivity to any of the products to be administered during dosing
20. Currently enrolled in another investigational device or drug study or < 30 days since ending another investigational device or drug studies, or receiving other investigational agents.
21. Will have any other investigational procedures performed while enrolled in this clinical study.
22. Pregnant or breastfeeding, or planning to become pregnant or breastfeed during treatment or within 1 month after the end of treatment.
23. Female subject of childbearing potential is not willing to use, in combination with her partner, an acceptable method of effective contraception during treatment and for 1 month after the end of treatment (see annex 5 for additional contraception information). Females of childbearing potential should only be included after a negative pregnancy test.
24. Will not be available for protocol-required study visits, to the best of the subject's and investigator's knowledge.
25. Any kind of disorder that, in the opinion of the investigator, may compromise the ability of the subject to give written informed consent and/or to comply with all required study procedures.
26.Other serious comorbidities at investigator criteria.

Date of first enrolment
02/12/2022

Date of final enrolment
24/04/2025

Locations

Countries of recruitment
United Kingdom

England

Scotland

Italy

Spain

Study participating centre

University Hospitals Bristol and Weston NHS Foundation Trust
Trust Headquarters
Marlborough Street
Bristol
England
BS1 3NU

Study participating centre
University Hospitals Plymouth NHS Trust
Derriford Hospital
Derriford Road
Derriford
Plymouth
England
PL6 8DH

Study participating centre
Torbay and South Devon NHS Foundation Trust
Torbay Hospital
Newton Road
Torquay
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TQ2 7AA

Study participating centre
Glasgow Royal Infirmary
84 Castle Street
Glasgow
Scotland
G4 0SF

Study participating centre
Norfolk and Norwich University Hospitals NHS Foundation Trust
Colney Lane
Colney
Norwich
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NR4 7UY

Study participating centre

East Kent Hospitals University NHS Foundation Trust
Kent & Canterbury Hospital
Ethelbert Road
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CT1 3NG

Study participating centre
The Newcastle upon Tyne Hospitals NHS Foundation Trust
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Newcastle upon Tyne
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Study participating centre
University Hospitals Birmingham NHS Foundation Trust
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Study participating centre
John Radcliffe Hospital
Headley Way
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Sponsor information

Organisation
Fundación Pública Andaluza para la Gestión de la Investigación en Salud de Sevilla (FISEVI)

Funder(s)

Funder type
Industry

Funder Name
Amgen

Results and Publications

Individual participant data (IPD) sharing plan
An aggregated anonymised primary research data set will be made available to third-party researchers worldwide for future research upon request to the sponsor and subject to an appropriate data sharing agreement where relevant. Data-sharing enquiries should be emailed to Clara Rosso Fernández (claram.rosso.sspa@juntadeandalucia.es).

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Study website		11/11/2025	11/11/2025	No	Yes