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Efficacy and safety of XM01 compared to placebo in patients with solid tumours or non-myeloid haematological tumours receiving non-platinum chemotherapy

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Registration date 15/09/2010	**Overall study status** Completed	[_] Statistical analysis plan [_] Results
Last Edited 15/09/2010	**Condition category** Cancer	[_] Individual participant data [_] Record updated in last year

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
XM01-22

Study information

Scientific Title

Efficacy and safety of XM01 compared to placebo in patients with solid tumours or non-myeloid haematological tumours receiving non-platinum chemotherapy: a phase III, multinational, multicentre, randomised, double-blind, parallel-group, placebo-controlled trial

Study objectives
To show efficacy and safety of XM01 over 12 weeks of treatment compared to placebo in patients with solid tumours or non-myeloid haematological tumours who are anaemic (haemoglobin [Hb] less than or equal to 11 g/dL) due to non-platinum chemotherapy.

Ethics approval required
Old ethics approval format

Ethics approval(s)
1. Argentina: Independent Committee of Ethics in Clinical Trials - Foundation for Pharmacological Research and Drugs (Comite Independiente de Etica para Ensayos en Farmacologia Clinica - Fundacion de Estudios farmacologicos y de Medicamentos [FEFYM]) approved on 16th May 2005 (ref: #200/2005 [RFI])
2. Belarus: local ethic committees approved (no dates given)
3. Brazil: National Commission on Research Ethics (Comissao Nacional de Ética em Pesquisa [CONEP]) approved on 3rd April 2006 (ref: 12088)
4. Bulgaria: local ethic committees (LEC at UMHAT "Sveti Georgi" Plovdiv) approved on 16th June 2006 (ref: 312)
5. Chile: Scientific Ethics Committee of the Gustavo Fricke Hospital (Comité Ético Cientifico del Hospital Gustavo Fricke) approved on 15th December 2005
6. India: local ethic committees approved (no dates given)
7. Moldova: National Ethics Committee of Clinical Studies of Drugs approved on 5th July 2006 (ref: CNEMSPS/76/01.07.2006)
8. Romania: National Ethics Committee for the Clinical Study of Medicines approved on 21st July 2005 (ref: 1558)
9. Russia: The Ethics Committee at the Federal Board of Quality Control of medicinal remedies approved on 17th May 2005 (ref: 3802)
10. Ukraine: Central Ethics Commission of the Ministry of Health of Ukraine approved on 29th May 2006 (ref: 5.12-244/KE)

Primary study design
Interventional

Study design
International multicentre randomised placebo-controlled double-blind parallel-group phase III study

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Solid tumours, non-myeloid haematological tumours

Interventions

Participants will be randomly allocated to the following two arms:
1. XM01: starting dose subcutaneously 20000 IU once weekly, adjustment up to 40000 and to a maximum of 60000 IU once weekly, or
2. Placebo

A follow up phase of 5 years has been foreseen for each treatment arm; the follow up is still ongoing.

Intervention Type
Drug

Phase
Phase III

Drug/device/biological/vaccine name(s)
XM01

Primary outcome(s)
Number of patients with a complete haemoglobin response which is defined as the increase in haemoglobin of greater than or equal to 2 g/dL from baseline without the benefit of a transfusion within the previous four weeks. Haematology parameters were measured weekly throughout the 12 week treatment phase; transfusions were documented weekly.

Key secondary outcome(s)
1. Number of patients having a partial haemoglobin response (defined as increase of greater than or equal to 1 g/dL from baseline and no need for transfusion in within the last four weeks)
2. Number of patients having a complete haemoglobin response with the initial dose (weekly starting dose for XM01: 20000IU) and no need for transfusions within the last 4 weeks
3. Number of patients having a partial haemoglobin response with the initial dose and no need for transfusions within the last 4 weeks
4. Number of patients receiving transfusions
5. Number of blood units transfused
6. Time course of haemoglobin, haematocrit and reticulocytes. Haematology parameters were measured weekly throughout the 12 week treatment phase; transfusions were documented weekly.
7. Quality of Life assessed by Functional Assessment of Cancer Therapy - Anaemia (Fact-An) (includes FACT-G [General] and FACT-F [Fatigue]). Measurement at baseline, after 6 weeks and at the end of study (12 weeks).
8. Dose of XM01 at the time of complete/partial haemoglobin response. The weekly dose was documented at the time when the patient achieved a partial or complete response.

Completion date
11/05/2007

Eligibility

Key inclusion criteria
1. Signed and dated written informed consent
2. Adult (aged greater than or equal to 18 years) patients of any ethnic origin
3. Male or female; if female, the patient must meet one of the following criteria:

3.1. Post-menopausal woman for at least one year
3.2. Surgical sterilisation or hysterectomy at least 3 months before the start of the study
3.3. Absolute sexual abstinence throughout the participation in the study
3.4. Women with childbearing potential will have to use a double contraception consisting of hormonal treatment (birth control pill, injection or implant, intra-uterine device [IUD]) plus condom or diaphragm. In women with childbearing potential a pregnancy test (human chorionic gonadotropin [HCG] in urine) should be performed in the trial centre at inclusion and every 4 weeks during the treatment period and 4 weeks after the last administration of study medication.
4. Anaemia caused by non-platinum chemotherapeutic treatment defined by a documented haemoglobin concentration of less than or equal to 11 g/dL after the last chemotherapy prior to inclusion
5. Histologically or cytologically proven diagnosis of a solid tumour or non-myeloid haematological tumours
6. At least one previous nonplatinum chemotherapy cycle as treatment of the current malignancy during the last 4 weeks
7. At least two additional nonplatinum chemotherapy cycles or two months of nonplatinum chemotherapy planned
8. Eastern Cooperative Oncology Group (ECOG) performance status 0, 1, 2 or 3
9. The patient must be able to understand and follow instructions and must be able to participate in the study for the entire period

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Sex
All

Key exclusion criteria
1. Pregnancy or breast feeding
2. Any other primary haematologic disorder that would cause anaemia (e.g. sickle cell anaemia)
3. Anaemia of unknown origin
4. Acute or chronic bleeding
5. Any erythropoietin given during the last 4 weeks or ongoing treatment with other erythropoietins
6. Patients who have been treated with epoetins with a longer half life time (e.g. novel erythropoiesis stimulating protein [NESP], continuous erythropoietin receptor activator [CERA]) within the last 6 months
7. Known presence of antibodies to epoetin
8. More than two red blood cell transfusions within 4 weeks before inclusion or any red blood cell transfusions within the last 2 weeks
9. Malignancy of the head or neck

10. Patients with acute leukaemia (acute lymphocytic leukaemia or acute myelotic leukaemia) and myeloid malignancies
11. Life expectancy less than 3 months
12. Candidate for bone marrow or stem cell transplantation
13. Chemotherapy during the last 7 days before study start
14. Radiotherapy or surgery during the last 14 days before inclusion or planned during the conduct of the study
15. Clinically significant concomitant diseases or condition unrelated to the underlying malignancy or chemotherapy
16. Systemic infection or inflammatory disease
17. Known hypersensitivity (drug intolerance or allergy) to erythropoietin, mammalian cell products or excipients of the formulation
18. History of myocardial infarction, cerebrovascular incident, percutaneous transluminal coronary angioplasty or coronary artery bypass graft within the six months prior to enrolment
19. Uncontrolled severe hypertension or hypertension defined as systolic blood pressure greater than 180 mmHg and/or diastolic blood pressure greater than 110 mmHg
20. Congestive heart failure according to New York Heart Association (NYHA) class III or IV
21. Thrombocytosis or thrombocytopenia (platelet count less than 50 x 10^9/L or greater than 550 x 10^9/L)
22. Iron deficiency (serum ferritin less than or equal to 100 µg/L or transferrin saturation [TSAT] less than or equal to 20%), defined as no serum ferritin greater than 100 µg/L and TSAT greater than 20% within the last five weeks before randomisation (for clarification: a patient showing for serum ferritin and for TSAT at least one value above these limits during the last five weeks before randomisation can be randomised)
23. Known untreated vitamin B12 or folic acid deficiency, defined by the respective laboratory value at baseline plus clinical symptoms of the deficiency
24. Known positive test for human immunodeficiency virus (HIV), hepatitis B or hepatitis C
25. Epilepsia, severe endogenous depression or schizophrenia
26. Known impairment of hepatic function
27. Known impairment of renal function
28. History or suspicion of unreliability, poor co-operation or non-compliance with medical treatment
29. History of, or known current problems with drug or alcohol abuse
30. Any other condition that, in the investigator's judgement, might increase the risk to the patient or decrease the chance of obtaining satisfactory data needed to achieve the objective(s) of the study
31. Abnormal baseline findings considered by the investigator to indicate conditions that might affect study endpoints
32. Participation in a study with investigational drugs within 30 days prior to enrolment or during the study
33. Prior inclusion in the same study

Date of first enrolment
17/11/2005

Date of final enrolment
11/05/2007

Locations

Countries of recruitment

Argentina

Belarus

Brazil

Bulgaria

Chile

India

Moldova

Romania

Russian Federation

Ukraine

Study participating centre
UMHAT "Sv. Georgi"
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Sponsor information

Organisation
BioGeneriX AG (Germany)

ROR
https://ror.org/03xa4xh46

Funder(s)

Funder type
Industry

Funder Name
BioGeneriX AG (Germany)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration