# Multicenter, randomized, open-label, clinical study on the agreement of Scintimun® Granulocyte and labeled 99m Tc-White Blood Cells in diagnosing infection/inflammation by immunoscintigraphy in peripheral bone and joints with suspected osteomyelitis.

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| **Ethical review** | Approved WMO |
| **Status** | Recruitment stopped |
| **Health condition type** | Other condition |
| **Study type** | Interventional |

## Summary

### ID

NL-OMON29943

**Source**
ToetsingOnline

**Brief title**
AG-PH3

### Condition

- Other condition
- Hepatobiliary neoplasms malignant and unspecified

**Synonym**

bonemarrow and its surrounding connective tissue, central osteitis / inflammation of the bone

**Health condition**

bot- en gewrichtaandoeningen

**Research involving**
Human

## Sponsors and support

**Primary sponsor:** CIS bio International
**Source(s) of monetary or material Support:** CIS bio international

## Intervention

**Keyword:** Ceretec, immunoscintigraphy, osteomyelitis, Scintimun

## Outcome measures

**Primary outcome**

Agreement rate of Scintimun® Granulocyte and 99mTc-WBCs with regard to the diagnosis of infection/inflammation by immunoscintigraphy, based on the evaluations of three blinded and independent readers in a blinded read.

**Secondary outcome**

· The agreement rate of Scintimun® Granulocyte and 99mTc-WBCs with regard to the diagnosis of infection/inflammation by immunoscintigraphy per blinded reader and based on the evaluations of the clinical investigators.

· The image quality assessed by the three blinded readers.

# Study description

**Background summary**

Inflammation leads to transportation of leukocytes to the site of infection. Especially nuclear medicinal diagnostics is using this, by radioactive labelling of patient*s granulocytes, which thereafter can be visualised.

Specific labelling (e.g. with 111In-oxime) however, was only possible in vitro (after isolating granulocytes), followed by re-injection to the patient. Scintimun® Granulocyte is a monoclonal antibody with a high-specific in vivo labelling of granulocytes. Therefore this method is simpler, less time-consuming and less of a burden for the patient.

**Study objective**

The primary objective of the present study is to assess the agreement rate of Scintimun® Granulocyte and 99mTc-WBCs with regard to the diagnosis of infection/inflammation by immunoscintigraphy, based on the evaluations of three blinded and independent readers.

The secondary objectives are to assess the image quality, and evaluate the safety of the two products, in particular, the possible HAMA factor induction. Additional objective will be determination of agreement rates between Scintimun® Granulocyte and 99mTc-WBCs per reader and based on the evaluation of clinical investigators.

**Study design**

Open- label, randomized trial in several centres in several countries within the EU with intra-individual comparison of the diagnostic treatments with Scintimun® Granulocyte and Ceretec.

**Intervention**

Single intravenous bolus injection of 99mTc-Scintimun® Granulocyte and single administration of 99mTc-labeled, Ceretec treated white blood cells. Imaging 4 and 24 h after each injection.

**Study burden and risks**

Burden:
In 3 months the patients will come to the visit 8 times for on average 2 hours per visit.
Patients will get a physical examination, measurement of blood pressure and heart rhythm and blood drawings for lab analyses and isolations of white blood cells (in total about 222 ml).
Patient will receive 2 times an intravenous injections and 4 times an osteoscintigraphy. The radiation exposure is 1 x 800 MBeq or 8,3 mSv and 1 x 330 MBeq or 3,4 mSv.

Risks:
Since 1996 more that 90,000 patients have been administered Scintimun® Granulocyte. Only four patients have experienced adverse events possibly

related to Scintimun® Granulocyte: 1 Quincke*s oedema, 1 anaphylactoid reaction, 1 mild cardiovascular collapse and 1 mild tenderness of the thigh in the region of osteomyelitis.

In Ceretec only hypersensitivity reactions have occurred.
Administration of mouse monoclonal antibodies such as Scintimun® Granulocyte can lead to the development of anti-mouse antibodies (HAMA). Patients who develop HAMA ay have a greater risk for hypersensitivity reactions and a lower response to further scintrigraphies with mouse monoclonal antibodies. In previous studies less than 5% of patients developed HAMA after a single administration.

Blood sampling can cause bruises and in rare cases inflammation of the venous wall.
The indwelling of a venous cannula can cause light pain.

# Contacts

**Public**
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**Scientific**
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# Trial sites

## Listed location countries

Netherlands

# Eligibility criteria

**Age**

Adults (18-64 years)
Elderly (65 years and older)

## Inclusion criteria

The patients screened positively for the study must fulfill all the following criteria:
1. Male or female (if female of child-bearing potential, negative pregnancy test required before any radiotracer administration),
2. Age 18 years or more,
3. Patients with suspected or documented osteomyelitis (acute, subacute, chronic) in the peripheral skeleton including patients with loosening of joint prosthesis and patients with diabetic foot. In addition, at least one of the following signs or symptoms is required: localized pain, nonhealing skin ulceration, fever > 37.8°C for at least 3 days, leukocyte count in excess of the upper normal limits, erythrocyte sedimentation rate in excess of the upper normal limits, radiographic findings suggestive of osteomyelitis, or positive blood or wound cultures,
4. Patients who have signed a written informed consent form to participate in the study.

## Exclusion criteria

Patients displaying any of the following criteria will not be included:
1. Pregnant women and women with a positive pregnancy test prior to the first study drug administration,
2. Breastfeeding women and women of child bearing potential not using a reliable means of contraception,
3. Patients with a known allergy to mouse proteins or a positive mouse proteins-specific Ig E test (allergy test) prior to the first study drug administration,
4. Patients with a positive HAMA test prior to the first study drug administration
5. Patients with rare hereditary problems of fructose intolerance,
6. Severe disease or surgery (except for orthopedic reasons) within the last 4 weeks prior to the first study drug administration,
7. A history of hypersensitivity to one or several medications (abnormal or idiosyncratic reactions to a drug),
8. Patients with leukocyte count < 6.10E9/L (6,000/mm3),
9. The use of non-steroid anti-inflammatory drugs and corticosteroids within 3 days prior to the first injection and up to 24 hours after the last injection,
10. Receipt of cancer chemotherapy and immunosuppressive drugs or immunomodulators within 4 weeks prior to study entry,
11. Patient showing laboratory parameters which in the opinion of the investigator preclude participation for reasons of the patient*s safety.
12. Nuclear medicine diagnostic procedure within 2 days prior to the first injection,
13. Participation in another clinical study within one month prior to screening,
14. Uncooperative, in the investigator's opinion,
15. Linguistic or psychological inability to sign the informed consent form and/or take part in the study.

# Study design

## Design

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| Study phase: | 3 |
| Study type: | Interventional |
| Intervention model: | Crossover |
| Allocation: | Randomized controlled trial |
| Masking: | Open (masking not used) |
| Control: | Active |
| Primary purpose: | Diagnostic |

## Recruitment

NL

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|---|---|
| Recruitment status: | Recruitment stopped |
| Start date (anticipated): | 02-12-2008 |
| Enrollment: | 26 |
| Type: | Actual |

## Medical products/devices used

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| Product type: | Medicine |
| Generic name: | Scintimun® Granulocyte (besilesomab) and Ceretec (exametazime) |

# Ethics review

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| Approved WMO Date: | 15-06-2006 |
| Application type: | First submission |
| Review commission: | METC Leids Universitair Medisch Centrum (Leiden) |
| Approved WMO Date: | 15-01-2007 |
| Application type: | Amendment |
| Review commission: | METC Leids Universitair Medisch Centrum (Leiden) |

# Study registrations

## Followed up by the following (possibly more current) registration

No registrations found.

## Other (possibly less up-to-date) registrations in this register

No registrations found.

## In other registers

| Register | ID |
|---|---|
| EudraCT | EUCTR2006-000514-21-NL |
| CCMO | NL12123.058.06 |