

The second multi-centre intra-pleural sepsis trial (MIST2), to assess whether DNase or Alteplase, improve pleural fluid drainage in pleural infection

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| Submission date 24/05/2004 | Recruitment status No longer recruiting | <input type="checkbox"/> Prospectively registered |
| Registration date 11/10/2004 | Overall study status Completed | <input type="checkbox"/> Protocol |
| Last Edited 15/08/2011 | Condition category Infections and Infestations | <input type="checkbox"/> Statistical analysis plan |
| | | <input checked="" type="checkbox"/> Results |
| | | <input type="checkbox"/> Individual participant data |

Plain English Summary

http://www.ctu.mrc.ac.uk/research_areas/study_details.aspx?s=46

Contact information

Type(s)

Scientific

Contact name

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Contact details

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Additional identifiers

EudraCT/CTIS number

2004-000658-22

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

N/A

Study information

Scientific Title

Acronym

Multi-centre Intra-pleural Sepsis Trial (MIST2)

Study hypothesis

Pleural infection - an infection of the area around the lungs - can occur when people have lung diseases such as pneumonia. Doctors often try to drain the fluid around the lungs to try to treat this. But sometimes this can be hard to do successfully. Some people have to have an operation, and some people may die as a result of the infection. Researchers think that the drugs DNase and Alteplase, which are already used to treat other illnesses, might help to treat pleural infection. The MIST2 trial aims to test whether these drugs are safe, and whether they can help to drain the fluid around the lungs. We are doing this trial in partnership with the Respiratory Trials Unit at the Churchill Hospital, Oxford.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Eastern Multi-Research Ethics Committee (latterly Cambridgeshire 4 REC) on 16/12/2004 (ref: 04/mre05/53)

Study design

Randomised controlled trial

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Hospital

Study type(s)

Treatment

Participant information sheet

Condition

Pleural infection

Interventions

Patients will be randomly assigned in the ratio 1:1:1:1 to either of the following regimes: Alteplase 10 mg bd (twice a day) intrapleurally + DNase 5 mg bd intrapleurally; or Alteplase placebo intrapleurally + DNase 5 mg bd intrapleurally; or Alteplase 10 mg bd intrapleurally + DNase placebo intrapleurally; or Alteplase placebo intrapleurally + DNase placebo intrapleurally.

Intervention Type

Other

Phase

Not Specified

Primary outcome measure

The primary endpoint will be radiographic improvement in area of pleural collection (between the area of the pleural collection on the CXR at randomisation and the chest radiograph taken on day 6/7).

Secondary outcome measures

Secondary outcome measure(s):

1. Changes in blood CRP from baseline to day 6/7
2. Time from randomisation to remain afebrile for 36 hrs
3. Total pleural fluid drainage
4. Survival and need for surgery at 3 and 12 months

Overall study start date

11/10/2003

Overall study end date

11/10/2007

Eligibility

Participant inclusion criteria

1. A clinical presentation compatible with pleural infection
2. Has pleural fluid requiring drainage which is either purulent, gram stain positive, culture positive or acidic with a pH < 7.2
3. Written informed consent

Participant type(s)

Patient

Age group

Not Specified

Sex

Both

Target number of participants

Added as of 10/09/2007: 210

Participant exclusion criteria

1. Age <18 years
 2. Has previously received intra-pleural fibrinolytics or DNase for this empyema
 3. Has a known sensitivity to DNase or tissue plasminogen activator
 4. Has had a coincidental stroke, a major haemorrhage or major trauma
 5. Has had major surgery in the previous 5 days
 6. Has had a previous pneumonectomy on the side of infection
- Patients who are pregnant or lactating (females of childbearing potential must have a negative pregnancy test before randomisation)
- Expected survival less than three months from a different pathology to this empyema (e.g. metastatic lung carcinoma)
- Inability to give informed consent

Recruitment start date

11/10/2003

Recruitment end date

11/10/2007

Locations

Countries of recruitment

England

United Kingdom

Study participating centre

Academic Clinical Lecturer

Oxford

United Kingdom

OX3 7LJ

Sponsor information

Organisation

Oxford Radcliffe Hospitals NHS Trust (UK)

Sponsor details

R&D Office

Manor House

The John Radcliffe Hospital

Headley Way

Headington

Oxford

England

United Kingdom
OX3 9DU

Sponsor type

Hospital/treatment centre

ROR

<https://ror.org/03h2bh287>

Funder(s)

Funder type

Industry

Funder Name

Unrestricted educational grant from Roche UK

Results and Publications

Publication and dissemination plan

Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---------------------------------|---------|--------------|------------|----------------|-----------------|
| Results article | results | 11/08/2011 | | Yes | No |