

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

Submission date 24/05/2004	Recruitment status No longer recruiting	☐ Prospectively registered
Registration date 11/10/2004	Overall study status Completed	☐ Protocol
Last Edited 15/08/2011	Condition category Infections and Infestations	☐ Statistical analysis plan
		☒ Results
		☐ Individual participant data

Plain English summary of protocol

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

Contact information

Type(s)

Scientific

Contact name

Dr Najib Rahman

Contact details

Academic Clinical Lecturer
Oxford Respiratory Trials Unit
University of Oxford
Churchill Hospital
Old Road, Headington
Oxford
United Kingdom
OX3 7LJ

Additional identifiers

Clinical Trials Information System (CTIS)

2004-000658-22

Study information

Scientific Title

Acronym

Multi-centre Intra-pleural Sepsis Trial (MIST2)

Study objectives

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)

Primary study design

Interventional

Study design

Randomised controlled trial

Study type(s)

Treatment

Health condition(s) or problem(s) studied

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(s)

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).

Key secondary outcome(s)

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

Completion date

11/10/2007

Eligibility**Key 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

Healthy volunteers allowed

No

Age group

Not Specified

Sex

All

Key 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

Date of first enrolment

11/10/2003

Date of final enrolment

11/10/2007

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

Academic Clinical Lecturer

Oxford

United Kingdom

OX3 7LJ

Sponsor information

Organisation

Oxford Radcliffe Hospitals NHS Trust (UK)

ROR

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

Funder(s)

Funder type

Industry

Funder Name

Unrestricted educational grant from Roche UK

Results and Publications

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