

# Evaluation of the diagnostic quality of manganese chloride tetrahydrate (CMC-100©) in liver magnetic resonance imaging in patients with known liver metastases: a phase II trial

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		<input type="checkbox"/> Protocol
<b>Registration date</b> 01/06/2007	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
<b>Last Edited</b> 19/10/2021	<b>Condition category</b> Cancer	<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

Not provided at time of registration

## Contact information

### Type(s)

Scientific

### Contact name

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## Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

## Study information

### Scientific Title

Evaluation of the diagnostic quality of manganese chloride tetrahydrate (CMC-100©) in liver magnetic resonance imaging in patients with known liver metastases: a phase II trial

### Study objectives

To assess the feasibility of manganese chloride tetrahydrate (CMC-001©) as a contrast medium in liver Magnetic Resonance Imaging (MRI) scanning.

The secondary objectives are to further evaluate the safety and tolerability of CMC-001© in patients.

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

Approval received from the official board of the UMC St Radboud of Nijmegen on the 25th May 2004 (ref: SE/AMO 0339).

### Study design

The study was open and non-randomised, with each patient being his own control. The evaluation of the MR images was performed by two independent observers.

### Primary study design

Interventional

### Secondary study design

Non randomised controlled trial

### Study setting(s)

Hospital

### Study type(s)

Diagnostic

### Participant information sheet

### Health condition(s) or problem(s) studied

Verified liver metastases

### Interventions

CMC-100© is a contrast agent taken by the oral route intended for use in MRI scanning of the liver, gallbladder and surrounding tissues. In this, the first phase II trial, the intention was to find out how well liver metastases could be visualised in contrast to the surrounding healthy liver tissue. To this end a MRI image taken before contrast was compared to a MRI picture taken three hours after contrast by two independent observers. Some of the patients also had a third MRI 24 hours after contrast in order to see if the gallbladder could be visualised. 48 hours after

contrast the patients were called on the phone out of safety reasons in order to find out if they had experienced any Adverse Events (AEs).

No interventions besides the MRI and a screen of blood samples for safety analyses and a special blood sample for manganese alalyse were done.

### **Intervention Type**

Drug

### **Phase**

Phase II

### **Drug/device/biological/vaccine name(s)**

Manganese chloride tetrahydrate (CMC-001©) contrasting agent

### **Primary outcome measure**

The primary endpoint was efficacy. The MR image before contrast was compared to the MR image three hours after contrast and in a small number of patients also a MR image 24 hours after contrast.

### **Secondary outcome measures**

Secondary parameters was the safety of the contrast. AEs were recorded as long as the patients were staying at the clinic and were called 48 hours after contrast and interviewed about any untoward experiences.

### **Overall study start date**

01/05/2004

### **Completion date**

01/03/2006

## **Eligibility**

### **Key inclusion criteria**

1. Signed written informed consent after oral and written information about the study has been given by the investigator
2. Patients with liver metastases verified with other imaging techniques
3. Men or women over 18 years old
4. The patient is conscious and co-operative

### **Participant type(s)**

Patient

### **Age group**

Adult

### **Lower age limit**

18 Years

### **Sex**

Both

### **Target number of participants**

20

### **Key exclusion criteria**

1. Clinically relevant medical history or abnormal physical findings which could interfere with the safety or objectives of the study as judged by the investigator
2. Clinically relevant haematology, clinical chemistry, serology and urine chemistry abnormalities. This is based on the judgement of the treatment physicians
3. Use of any prescribed, over-the-counter or herbal medication one week prior to entering the study, which might interfere with the safety or the objectives of this study
4. Use of all types of products containing manganese, vitamin D or products containing amino acids during the examination day until after the 24-hour examination
5. Allergy to any of the study product compounds
6. Drug or alcohol abuse by asking the patient at screening
7. Patients who are deemed to be unsuitable for any other reason in the opinion of the investigator
8. Participation in another clinical study concerning another contrast preparation within the last three months or seven days after this study
9. Previous inclusion in this study
10. Pregnancy
11. The patient is scheduled to receive iodinated contrast medium intravascular within three days after this study
12. The patient is being investigated on an emergency basis
13. The patient has newly discovered unstable diabetes or undergoes haemodialysis or peritoneal dialysis
14. The patient has a concurrent illness that may influence the renal function or has undergone kidney transplantation
15. The patient has a concurrent illness in the Gastrointestinal (GI) tract or clinically manifest icterus
16. Known Human Immunodeficiency Virus (HIV) infection or Acquired Immune Deficiency Syndrome (AIDS)
17. Hepatitis
18. The patient has uncompensated cardiac failure (cardiac failure New York Heart Association [NYHA] grade four)
19. A patient may be excluded during the trial based on the clinical judgement of the clinician or the radiologist

### **Date of first enrolment**

01/05/2004

### **Date of final enrolment**

01/03/2006

## **Locations**

### **Countries of recruitment**

Netherlands

Sweden

**Study participating centre**

**Floragatan 13**

Stockholm

Sweden

SE-114 75

## **Sponsor information**

**Organisation**

Copenhagen Malmö Contrast AB (CMC Contrast AB) (Sweden)

**Sponsor details**

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**Sponsor type**

Industry

**Website**

<http://www.cmc-contrast.se>

**ROR**

<https://ror.org/015x46y72>

## **Funder(s)**

**Funder type**

Industry

**Funder Name**

Copenhagen Malmö Contrast AB (CMC Contrast AB) (Sweden)

## **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