



**Oxford Centre for Clinical Magnetic Resonance Research  
(OCMR)**

**Gadolinium use in OCMR**



WORK INSTRUCTION 01	Revision: 3.0	Date: 02/10/17
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## 1.0 PURPOSE

The purpose of this document is to provide instructions for use of gadolinium in MR Imaging at OCMR

## 2.0 SCOPE

This work instruction should be referred to when using gadolinium for MR imaging (ensuring compliance with SOP OCMR\_004 Minimum Attendance Policy).

## 3.0 RECORDS

The batch number, volume given, time of administration and the person administering should be recorded in the appropriate section on the reverse of the safety screening form. Peel off stickers from the vials/ pre- filled syringes can be used for this purpose.

## 4.0 ASSOCIATED DOCUMENTS

This document should be read in conjunction with SOP OCMR\_001 MR Scanning and OCMR\_09 Use of gadolinium contrast agents (available on the OCMR website).

## 5.0 RESPONSIBILITY

This work instruction is maintained and reviewed by the OCMR SOP committee.

## 6.0 INSTRUCTIONS

6.1 Gadolinium based contrast agents are supplied in different concentrations and presentations.

### 6.1.1 Dotarem



Dotarem is supplied in 3 different vial sizes, 20mls, 15mls and 10mls.

The amount of Dotarem given varies according to the study indication. Calculate the amount needed and then open the appropriate vial size.

#### For late gadolinium imaging

The dose is 0.1mmol/kg. This is equivalent to **0.2mls/kg** body weight (e.g. for a 70Kg person that is  $70 \times 0.2 = 14\text{mls}$ ).

#### For perfusion imaging

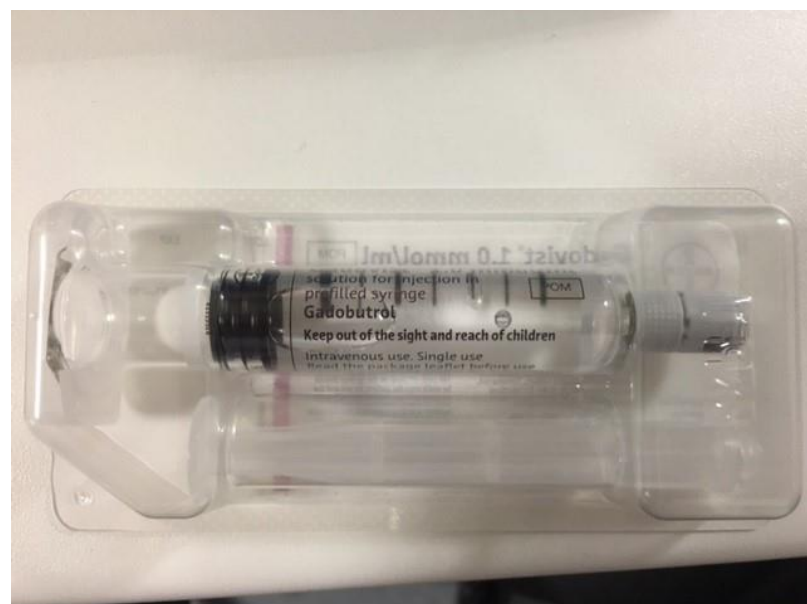
For clinical stress / rest perfusion imaging the total dose is 0.15mmol/kg (**0.3mls/kg**) for the entire study. As there is a rest and stress component (i.e. 2 scans) this is split evenly 0.075mg/kg for both rest and stress (e.g. for a 70 kg person for the whole study it is  $0.3 \times 70$  i.e. 21mls. This is then split evenly into 10.5mls for stress perfusion and 10.5mls for rest perfusion)

For research studies acquiring stress/ rest perfusion please follow the appropriate study protocol.

### 6.1.2 Gadovist

The clinical dose is 0.1mmol/kg. The concentration of Gadovist is 1.0mmol/ml.

Gadovist comes in vials of 15mls and pre-filled syringes of 7.5mls and 10mls





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The amount of Gadovist given varies according to the study indication. Calculate the amount needed and then open the appropriate vial/syringe size.

### Late gadolinium imaging

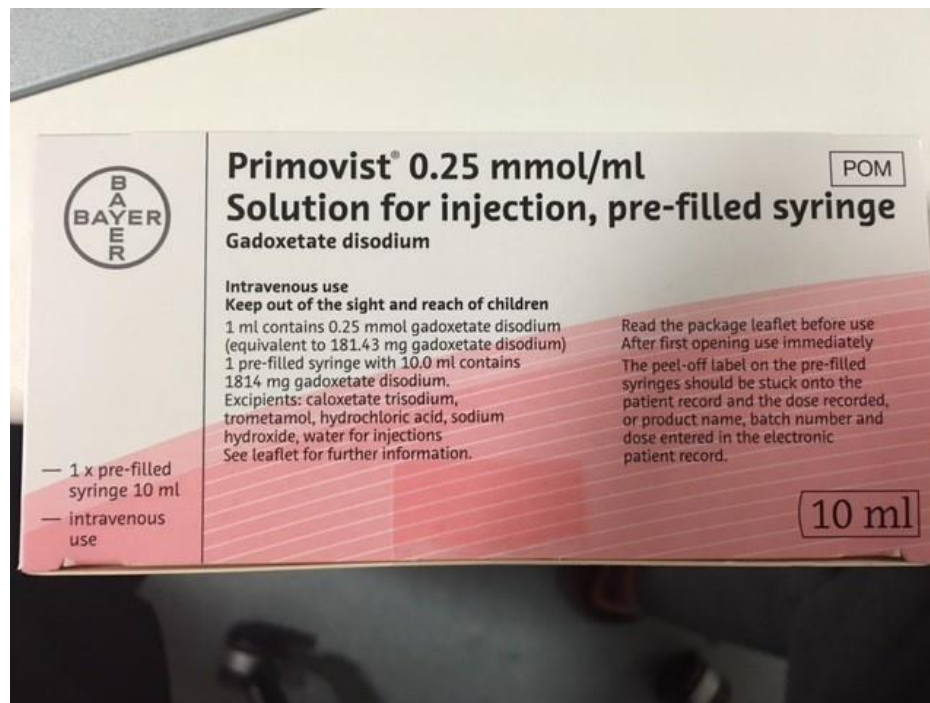
Give 0.1ml/1kg body weight (e.g. for a 70Kg person that is  $70 \times 0.1 = 7\text{mls}$ )

### Perfusion Imaging

Give 0.15ml/1kg body weight (e.g. for a 70Kg person that is  $70 \times 0.15 = 10.5\text{mls}$ )

### 6.1.3 Primovist

Primovist is to be used for liver imaging only.



Primovist comes in pre-filled syringes of 10ml. This can be transferred to the power injector for dynamic studies where necessary.

The dose is 0.025mmol/kg, concentration is 0.25mmol/ml



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Give 0.1ml/1kg body weight (e.g. for a 70kg person that is  $70 \times 0.1 = 7\text{mls}$ )