

Lay summary for completed research projects

CCR No and Study Title:	CCR3004 Characterisation of metastatic and myeloma bone disease using functional MR (magnetic resonance) imaging and quantification of treatment response (Functional MR in the assessment of metastatic bone disease - version 1)		
CI and Sponsor names:	Professor Nandita de Souza Institute of Cancer Research		
Study opening date:	05/03/2008	Study closing date:	31/03/2013
Proposal and Objectives:	This study was set up to assess whether novel magnetic resonance imaging methods could be used to assess metastatic and myeloma bone disease and quantify response to therapy. It was then extended to evaluate whole body MRI scanning protocols.		
Main Findings:	<p>This study has successfully shown that functional Magnetic Resonance Imaging (MRI) methods can be used to assess tumour within bone in myeloma as well as in cancer that has spread to the bone from other sites within the body.</p> <p>Whole Body Magnetic Resonance Imaging (WB-MRI) has been shown to be useful for monitoring and quantifying how myeloma patients are responding to treatment, and has reduced the need for painful bone marrow biopsies.</p> <p>It has also been shown to provide a better estimate of the total amount of disease present in myeloma, compared with standard whole-body X-ray methods.</p>		
Implications for practice/future research:	<p>As a result, WB-MRI for myeloma has been recommended as a National Institute for Health and Care Excellence (NICE) guideline for disease staging and has replaced traditional X-ray methods.</p> <p>A further study is now extending these investigations to assess whether WB-MRI is useful in determining whether or not a patient with myeloma is likely to progress after treatment.</p>		

Dissemination Plan:	This work has been widely published in peer-reviewed journals and presented at International conferences. It has also formed part of a lecture series, Advances in Imaging Myeloma , given to a number of UK centres including: Belfast, Newcastle, London, Glasgow, Cardiff and Edinburgh.
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