

FERRISCAN[®] AND CARDIAC T2* DUAL ANALYSIS SERVICE

The liver and the heart in iron overload

Liver iron concentration (LIC) is a good measure of total body iron stores in thalassaemia¹ where high LIC is associated with cardiac iron overload². Once a certain threshold of LIC is exceeded, iron can begin to accumulate in the heart and other organs³. Patients with elevated LIC are at a greater risk of future cardiac complications and premature death^{4,5}. FerriScan[®] is an accurate method for monitoring LIC delivering results unaffected by inflammation, fibrosis or cirrhosis⁶.

Changes in LIC generally precede changes in heart iron loading^{2,3}, acting as an early warning of possible future cardiac complications.

Iron-induced damage to heart tissue can be halted and is reversible if appropriate chelation therapy is commenced in time. Measurement of cardiac T2* with MRI enables assessment of the risk of iron-induced arrhythmia and cardiac failure⁷.

Regular and accurate FerriScan LIC and cardiac T2* measurements enable better informed decisions on the management of patients at risk of iron overload.

Resonance Health makes the FerriScan and cardiac T2 service available internationally without requiring the purchase of additional software or hardware. The service is charged per scan only.*

The FerriScan[®] and Cardiac T2* Dual Analysis Service

FerriScan[®] has the highest sensitivities and specificities for measurement of LIC at both low and high ranges⁶. Cardiac T2* is the most widely accepted method for assessing cardiac iron. These two analyses can now be delivered as a single service to suitably equipped MRI facilities.

Key FerriScan features:

- FerriScan provides an accurate, non-invasive MRI-based measurement of liver iron concentration
- FerriScan requires only a ten-minute scan. No contrast agent is required
- FerriScan is charged per scan only and is an easy process to establish
- The analysis uses patented spin density projection R2-MRI imaging technology
- FerriScan offers high sensitivity and specificity over the range of LIC seen in clinical practice
- FerriScan LIC results are unaffected by cirrhosis or fibrosis
- FerriScan has regulatory approvals (USA, Canada, Europe and Australasia)

Key Cardiac T2* features:

- Provides significant information for assessing risk of cardiac failure or arrhythmia
- Cardiac T2* is the most widely accepted MRI-based method for assessing heart iron loading

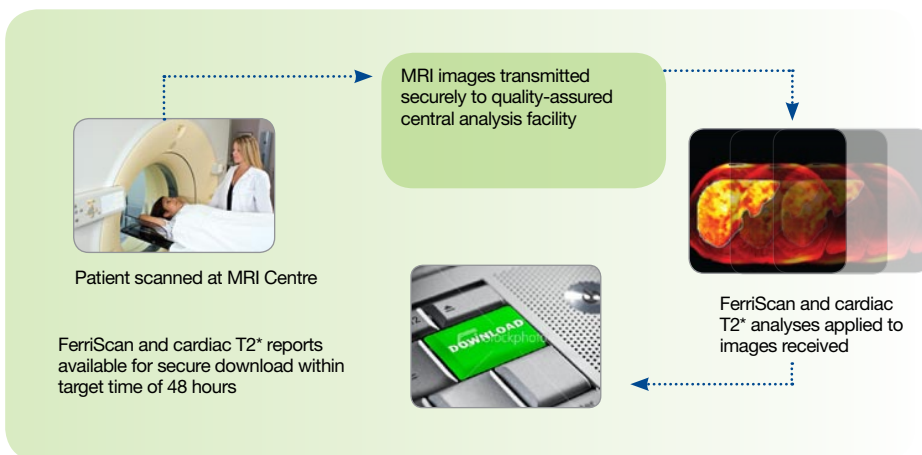
Key Dual Analysis Service features:

- The dual analysis service provides a more complete picture of body iron loading
- FerriScan and cardiac T2* is charged only on a 'per scan' basis
- Analyses are performed in a centralised facility providing security of data and 48-hour results turnaround
- ISO 9001 and 13485 quality assurance

FerriScan and cardiac T2* service proudly delivered by



ResonanceHealth



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Establishing the Dual Analysis Service at an MRI Centre

MRI Centre	MRI Centre Scanner Details form – assessment of scanner technical capabilities for FerriScan and cardiac T2*
Resonance Health	Service Agreement executed with MRI Centre and contact details gathered
Resonance Health	Customer set up in secure web facility for transfer of image data
Resonance Health	FerriScan Phantom Pack and instruction manual couriered to MRI Centre
MRI Centre	MRI Centre transmits phantom images for validation of FerriScan set-up. No Phantom validation is required for cardiac T2*
Resonance Health	Scanner validated for FerriScan. Patient scanning for FerriScan and cardiac T2* can now commence

Technical requirements for FerriScan[®]

The minimum MRI scanner requirements for the acquisition of suitable data for a FerriScan LIC measurement are:

- MRI scanner with a field strength of 1.5 Tesla
 FerriScan is currently implemented on a range of scanners manufactured by GE, Philips and Siemens. GE scanners must be operating on Scan Tools 14 or later to be FerriScan-compliant.
- An abdominal/chest coil - most MRI centres would already be equipped with this.
 The setup scanning protocol is provided by Resonance Health and a FerriScan Phantom Pack (scanner setup verification tool) is also provided to validate the scanner.

Technical requirements for Cardiac T2*

The minimum MRI centre requirements for the acquisition of suitable data for a cardiac T2* measurement are:

- MRI centre personnel with experience in acquiring cardiac MR images
- MRI scanner with a field strength of 1.5 Tesla, and a cardiac MRI package including:
 - RF coil suitable for acquiring cardiac MR images
 - ECG facility
 - Single-breath-hold, multi-echo T2* sequence
 - Total of 8 echo times
 - Minimum TE between 2 and 3 ms
 - Maximum TE between 16 and 23 ms

For further information please visit the website at www.ferriscan.com or email info@ferriscan.com

References

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