

Welcome to our end of year customer newsletter – it's a bumper edition as we have a lot to share!

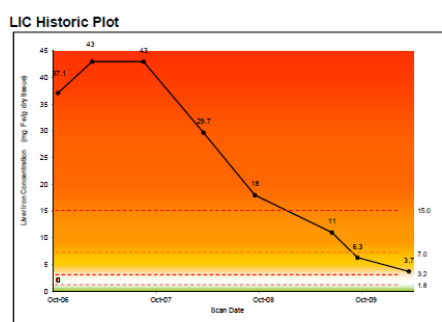
We wish all of our customers a very happy holiday season.

Please feel free to contact emmas@resonancehealth.com with any feedback.

Chelation Change & Compliance: Using FerriScan® to Optimise Outcomes

With new chelator choices coming to market, most recently in the form of deferasirox film-coated tablets, there are increasing options for clinicians to optimise chelation regimes for their patients.

Patients changing from one therapy to another, or from an oral suspension to a film coated tablet may benefit from more frequent standardised liver iron concentration (LIC) assessment to measure response and avoid under or over chelation. FerriScan has been used as a regulatory authority approved chelation companion diagnostic for a decade and more recently was granted an additional status as the preferred 'Companion Diagnostic' by the FDA who deemed FerriScan 'necessary for safe and effective use of ExJade in non-transfusion dependent thalassaemia patients'.



FerriScan may be performed as often as needed and its sensitivity and specificity enables the test to detect early changes in LIC just months apart. This can provide vital information for clinicians wishing to review pre and post response to new chelation regimes.

Prof Tim St Pierre, Chief Scientific Officer at Resonance Health explained:

"FerriScan is unaffected by the type of chelator used, presence of inflammation, fat, or fibrosis, and provides the most standardised companion diagnostic for chelation use to measure changes in LIC burden. Whilst serum ferritin can provide useful trending information, it is confounded by factors such as inflammation and is unreliable as a direct measure of LIC."

"When patients are transitioning to different chelation treatments or modes of delivery, determining response and compliance can be critical. Having a regular FerriScan assessment provides clinicians with both the accurate information they need to optimise any chelation regime and also assists in assessing the degree of compliance of the patient to therapy based on their LIC. We have also had reports from many clinicians on the benefits of sharing the FerriScan report with patients to motivate compliance or facilitate discussion to optimise this."

For clinicians with any patients who have recently or will soon transition to new film coated deferasirox tablets or for those who would like to use FerriScan in patients more frequently (every 4 to 6 months) please contact alisonl@resonancehealth.com to discuss how we can add value to this process.

Radiology Centre MRI Survey

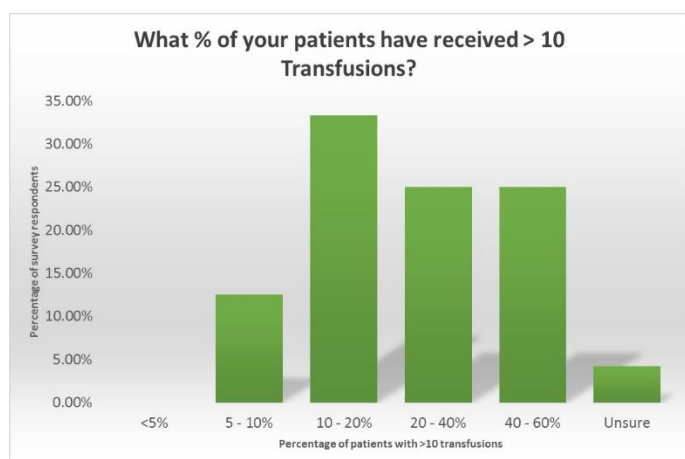
The Resonance Health team is continually striving to improve our service delivery and customer support. We would be very grateful for the assistance of our radiology centre partners to help us to do this. If you have already been emailed the link to the survey and completed it, thank you kindly. If you have not already completed the survey we would appreciate you spending less than five minutes to do so. [Please click here to access the survey.](#)

Iron Toxicity in Cancer Survivor Survey: Early Snapshot Shows Screening Can Be Improved

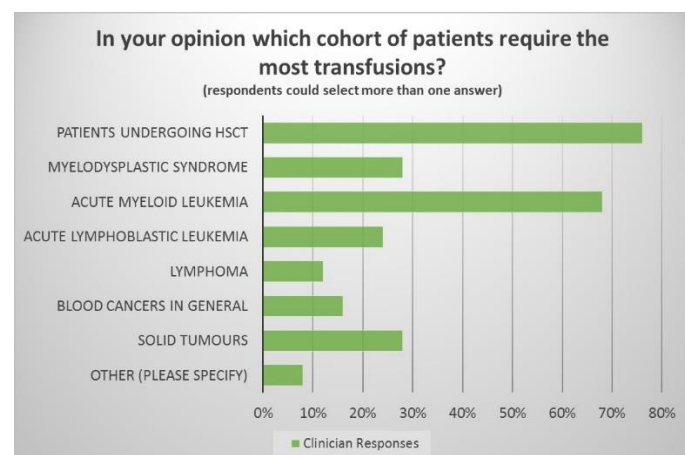
A significant number of cancer survivors now receive multiple blood transfusions during their therapy and may be at risk of iron overload. However, iron monitoring in cancer survivors is not standardised and recent literature recognises that iron toxicity may increase the risk of complications later in life.

Our recent survey to explore current practice in iron monitoring of cancer survivors is already generating a significant response. Over 25 experts across the UK, USA, and Germany (who treat over 500 cancer survivors a year between them) have already participated. The early indicators include the following key findings:

Over half of respondents said 20% or more of their cancer survivors had > 10 transfusions, potentially putting them at risk of iron overload:



Patients undergoing HSCT and those with Acute Myeloid Anaemia were ranked as having the highest requirement for blood transfusions. However, responses suggest many types of cancer required transfusions:



“An overwhelming 92% of respondents said that screening could be improved at their centre.”

Whilst 44% of survey participants stated they had used FerriScan in some capacity to monitor cancer survivors at risk of iron overload, serum ferritin was the main tool used by 76% of participants, with a cut-off point of 1000ng/ml used to indicate iron overload. Participants recognised this was problematic, due to the uncertainty of fatty liver contributing to raised ferritins in these patients. As such many were keen to have access to accurate liver fat measurements in addition to FerriScan – HepaFat-Scan® is the ideal tool for this purpose.

At the completion of the survey, the majority of respondents (67%) indicated that they would like to participate in a FerriScan iron monitoring audit of their survivor cohort. The majority also asked for further information on exploring the role of FerriScan, Cardiac T2*, and HepaFat Scan in this setting.

Our work to add value to any local screening audits is ongoing, and we look forward to partnering with many centres and helping to facilitate collaborations between experts to share best practice in the coming months. Please contact alisonl@resonancehealth.com for more information or to participate in the research survey please [click here...](#)

Customer in Focus: Whittington Hospital, London

The Whittington Hospital in London was one of the first sites in the UK to adopt the FerriScan technology. The hospital has been using FerriScan since 2008 as a companion diagnostic to chelation therapy for patients and as part of routine clinical management for iron overload. Consultant Haematologist, Dr Farrukh Shah and her team found that the adoption of FerriScan had a significant impact on patient health outcomes and had resulted in reduced iron burden and number of patients at high risk of iron toxicity. [Click to read more...](#)

This year the Whittington team celebrated providing over 1000 FerriScans to patients at their hospital and have now added Resonance Health's Cardiac T2* and HepaFat-Scan technologies to their service offerings. Adrian Trinidad, MRI Superintendent, who leads the provision of the FerriScan, Cardiac T2*, and HepaFat-Scan services said:

"We are delighted to have led the way in adoption of FerriScan as the gold standard for liver iron concentration measurement and are now extending the service with the addition of a Cardiac T2 for information on cardiac iron loading alongside information in the liver."*



Whittington collaborates with Resonance Health to provide excellence in iron monitoring with 1000 FerriScans! L-R: Dr Bernard Davis, Consultant Haematologist, Adrian Trinidad, MRI Superintendent, Prof Tim St Pierre, RH, Melanie Baxter, RH, Emma Drasar, Consultant Haematologist, and Emma Prescott, Clinical Nurse Specialist.

Congratulations to the Whittington Hospital on their achievement!

Conference Round Up

The Resonance Health team have had a busy conference schedule in the last quarter attending seven key meetings across the UK and USA, where our technologies have been profiled. We have had the pleasure of meeting with many existing and new customers at these events and continue to partner with the global clinical community to expand access to our services and advance health outcomes.

Recent meetings included Prof. Tim St Pierre and Dr Sherif Boulos from Resonance Health attending the Liver Meeting held by the American Association of Liver Disease (AASLD) in Boston during November, attended by 9500 delegates. Here, and at the Liver Forum, also held in Boston, non-invasive imaging diagnostics for liver disease, including HepaFat-Scan, were a hot topic for discussions in the networking sessions on non-alcoholic steatohepatitis (NASH) and non-alcoholic fatty liver disease (NAFLD). The Liver Forum presented further findings from working groups including the importance of standardisation to advance healthcare and research in this field.



FerriScan was also showcased at the American Society of Haematology's (ASH) 58th Annual Meeting and Exposition in San Diego in December, attended by 22,000 delegates from the haematology community. FerriScan was featured in a number of independent study presentations including results from the multicentre US TWITCH study and from China's Guangxi Medical University. To read more about the ASH conference or to read the abstracts please [click here....](#)

Next month we will be attending the Cancer Survivorship Symposium in San Diego on January 27-28th 2017 at table number 23. We look forward to exploring with delegates the role of FerriScan in monitoring cancer survivors to reduce risk of iron toxicity. [Click to read more](#) or for an appointment or more information please email alisonl@resonancehealth.com

R&D Update

Resonance Health has had an exciting year all round, including in the area of Research & Development.

New Service Offerings

One focus has been on the expansion of our service offerings to broaden the options we can provide the clinical community and our pharmaceutical collaborators alike. Some of our work has included the development of new technologies including bone marrow iron assessment, pancreatic fat assessment, and spleen volume measurement. These services are all now available in research and investigational settings. A regulatory submission for bone marrow iron assessment will be made in 2017 to allow this service to be made commercially available as a routine service for clinical management of patients. Proof of concept work has also been undertaken in the fields of inflammation and fibrosis as well as stereology. These exciting projects are all ongoing and we look forward to updating you as they continue to progress.

Clinical Study Collaborations

A second R&D focus has centred on collecting clinical data using our HepaFat-Scan technology for the measurement of volumetric liver fat fraction (VLFF). We are now collaborating with key opinion leaders across the globe on eight clinical studies. A brief update of the studies follows:

- **Paediatric non-alcoholic fatty liver disease (NAFLD)** in collaboration with *Children's Healthcare of Atlanta – Egleston*, US – recruitment is drawing to a close and results are expected in the first half of 2017.
- **Unexplained hyperferritinaemia** in collaboration with the *University College London*, UK – HepaFat-Scan, in combination with FerriScan, is being investigated to identify the cause of elevated ferritin. Recruitment will continue until mid-2017.
- **Type 2 Diabetes** - Two collaborative studies; one with the *University Hospitals of Leicester*, UK, and the second with the *University Malaya Biomedical Imaging*, Malaysia. In both studies liver and pancreatic fat are being assessed to determine the value in monitoring metabolic and liver disease in these patients. Patient scanning in both studies commenced this quarter and is progressing well.

- **Liver cancer surgery** in collaboration with various hospitals across Australia and New Zealand – investigation into the benefits of knowledge of the level of fat in the liver prior to surgery. Recruitment is ongoing until the end of 2018.
- **Bariatric surgery** in collaboration with *Cincinnati Children's Hospital Medical Center*, US – HepaFat-Scan is being used to measure the volume of liver fat pre and post bariatric surgery. Recruitment commenced mid-2016 and will continue until 2020.
- **London marathon** in collaboration with *Barts Health and the Heart Centre* – participants were scanned prior to training and post marathon, which has provided data on a standard fit and healthy population. We will participate again in this year's London Marathon study.
- **Australian population study** will provide liver fat data in a typical young Australian population. Recruitment has recently commenced and will continue until 2018 with over 1000 participants.

If you are interested in collaborating with us in a research setting we would be delighted to hear from you. Please email our Clinical Research Manager, Dr Sherif Boulos, for further information sherifb@resonancehealth.com



Team Member in Focus: Paige Standen-Burrows: Clinical Trial & Service Support Officer



Paige joined the Resonance Health team in August in the new role of Clinical Trial & Service Support Officer. Paige is the dedicated customer support person in the Service Centre, whose role also includes managing the clinical trial workflow. Paige has returned to Resonance after almost 10 years away, having been employed as a part time technical analyst and support person in 2005 and 2006. Many of you will 'meet' Paige as she assists you with enquiries you may have.

Paige has previously worked as a mathematics teacher, coordinated a community educational program, and freelanced as a Microsoft Excel trainer. She also spent two years living in France with her husband where they enjoyed learning the culture and language and exploring the countryside by bicycle.

Credit Card Payments Now Accepted

To help streamline our service provision we are very happy to advise that we are now able to accept credit card payments. If you wish to apply for this payment method please email accounts@resonancehealth.com

Happy Holidays!

In order to uphold service delivery and customer support, our Service Centre will remain open on the business days of the holiday season. We will only be **closed** on the following public holidays:

- Monday 26th December 2016
- Tuesday 27th December 2016
- Monday 2nd January 2017

We would like to wish all of our valued colleagues and customers a very happy and healthy holiday season and look forward to continuing our collaborations in 2017.

Coming Next Issue...

- Literature Update
- R&D Update

