



THE UNIVERSITY OF
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MEDICINE &
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SCIENCES

Medical Imaging in Clinical Trials: Long-Term Follow-Up: Common MRI Problems!

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Common MRI Issues

- Over the past few months, we have identified a few common recurring issues related to **MRI scans**.
- In the following slides, we will discuss the details of these issues and how to resolve them.
- These issues impact clinical trials of all types and from all sections, so please keep an eye out for any trials you coordinate!

Brain MRI Scans

- The routine clinical brain MRI scan parameters used by **UCM** generally meet the typical guidelines required by many clinical trials.
- Trials that plan to use brain MRI scans to screen for (or monitor) metastases, however, are increasingly requiring **standardized** parameters.
 - The “standardized brain tumor imaging protocol” is increasingly referenced in imaging manuals[†].

† Ellingson BM, Bendszus M, Boxerman J. Consensus recommendations for a standardized brain tumor imaging protocol in clinical trials. *Neuro Oncol* 2015; 17:1188–1198. <https://doi.org/10.1093/neuonc/nov095>.

Brain MRI Scans

- The **standardized brain tumor imaging protocol** is very similar to the UCM routine brain protocol, but there are a few differences.
- The **key difference**: our routine protocol is *missing* a specific scan sequence the standardized protocol *requires*.
- Attempting to submit a routine UCM brain scan to a trial that requires the standardized protocol will result in a query and potentially a request to repeat the scan.

Brain MRI Scans

- **The good news:** the missing sequence can be added in when requested without significant issue.
- **The less good news:** adding the sequence will extend the scan appointment (by approx. 10-20 mins).
- If the HIRO asked to be informed whenever you order a brain MRI scan for a patient on your trial, *please be sure* to let them know so they can work with the MRI team to add the required sequence and extend the appointment accordingly.

Questions?

- The HIRO is always available to help answer any imaging-related questions you might have! If we can't answer them, we will help find the people who can!

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