

HFpEF CMR protocol

V2.0 25/11/2022

1 Notes

- **CMR is not mandatory for the study – CMR is a sub-study.**
- If participants are undergoing CMR as part of their clinical care, we would like to capture the data for the study.
- In this context, the protocol below is a guide for sequences to include.
- It can be performed at 1.5T or 3T
- The protocol is split into core and supplementary sequences. We expect that the core sequences would be performed as part of a standard clinical CMR in any case.
- **As part of site set-up, the central study team will liaise with the site regarding the details of the CMR protocol appropriate for the site, and provide a site-specific CMR manual. The protocol below is a guide.**

2 Protocol

2.1 Core

- 1 Localisers
- 2 CH4 cine.
- 3 CH2 cine.
- 4 CH3 cine.
- 5 LVOT cine
- 6 Aortic valve cine
- 7 Gadolinium based contrast agent in line with local policy.
- 8 LV short axis cine stack.
- 9 TI Scout
- 10 LGE segmented inversion recovery and PSIR. CH4, CH2, CH3 and short axis stack

2.2 Supplemental

- 1 T1 mapping basal and mid short axis, before and after Gadolinium
- 2 CH4 fat-water sequence.
- 3 T2 mapping. Mid short axis.
- 4 Aortic candy stick cine
- 5 Cine perpendicular to the ascending and descending aorta at pulmonary bifurcation level, with measurement of blood pressure.

- 6 Phase encoded velocity mapping perpendicular to the main pulmonary artery.
- 7 3D Dixon fat-water sequence, centred over the renal arteries.
- 8 Perfusion imaging if being performed clinically