Author’s response to reviews

Title: Cardiovascular magnetic resonance 4D flow analysis has a higher diagnostic yield than Doppler echocardiography for detecting increased pulmonary artery pressure

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EDITOR COMMENT 1: Please address the remaining comment from Reviewer 3.
RESPONSE: This has now been done, as detailed below.

EDITOR COMMENT 2: In the “Ethics and consent to participate” section of the Declarations please include the full name of the ethics committee that approved the study and the committee’s reference number if appropriate.
RESPONSE: This has now been clarified.
EDITOR COMMENT 3: In the “Funding” section of your declarations, please clarify the role of
the funding body in the design of the study and collection, analysis, and interpretation of data
and in writing the manuscript.
RESPONSE: This has now been clarified.

EDITOR COMMENT 4: Please include a statement in the Authors' contributions section to the
effect that all authors have read and approved the manuscript, and ensure that this is the case.
RESPONSE: This has now been clarified.

EDITOR COMMENT 5: At this stage, please upload your manuscript as a single, final, clean
version that does not contain any tracked changes, comments, highlights, strikethroughs or text
in different colours. All relevant tables/figures/additional files should also be clean versions.
Figures (and additional files) should remain uploaded as separate files.
RESPONSE: We confirm that this has been done.

REVIEWER 1: Thanks for clarifications and updates. Looks good.
RESPONSE: Thank you.

REVIEWER 2: The authors have adequately addressed my concerns.
RESPONSE: Thank you.

REVIEWER 3: CMR is a way to go in future, PA stiffness can also be measured with
CMR
iam just curious if can CMR be measured in acquired PAH?
Its a very good paper and good luck

RESPONSE: The utility of CMR in acquired PAH has now been clarified in the

Discussion on page 10, line 17, as follows:
“The method used to estimate mPAP with CMR has been previously described and validated
compared to RHC [8]. It was applicable in all types of PH, including acquired pulmonary arterial
hypertension, with very good results compared to invasive measurements [11]."