

AI-MULTIPLY Consortium Publication and Authorship Policy

The principles for publication and authorship of **AI-MULTIPLY (Using artificial intelligence (AI) to characterize the dynamic inter-relationships between Multiple Long-term conditions and Polypharmacy and across diverse UK populations and inform health care pathways)** are set out below to fulfil the following requirements:

1. The need to recognise the contribution of many individuals across the consortium who have contributed to the implementation of the work undertaken by the AI-MULTIPLY consortium. This includes (broadly) the conception and design of the project, acquisition of funding, acquisition of data (and all that involves), analysis /interpretation of data and manuscript writing.
2. The need to comply with the statutory requirements as set out in the agreements between consortium members (AI-MULTIPLY) and the signed agreement between NIHR and Newcastle University on behalf of AI-MULTIPLY (Appendix 1). See also NIHR Publication Guidance (www.nihr.ac.uk/documents/nihr-research-outputs-and-publications-guidance/12250).
3. The need to avoid undue delays in publication and dissemination of prominent findings, in the interests of maximising impact upon human health, maintaining priority of publication and protection of intellectual property.
4. Adherence to Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Ethical Considerations in the Conduct and Reporting of Research: Authorship and Contributorship (www.icmje.org)

The AI-MULTIPLY Management Committee (Appendix 2), answerable to the AI-MULTIPLY Steering Committee (Appendix 2), will be responsible for managing adherence to this policy.

Authorship

1. All Principal Investigators (PIs) and any personnel who have, in the view of the Management Committee, made important substantial contributions to AI-MULTIPLY, will be listed as a member of AI-MULTIPLY (e.g. within supplementary materials) to recognise their important contributions to AI-MULTIPLY. This may result in a listing as author within for example Pub med. In these instances, the lead authors should cross reference to the authorship requirements of the journal for such listings.
2. To qualify for named authorship the individual must:
 - have made substantial contributions to conception and design, acquisition of data, or analysis and interpretation of study data AND

- been involved in drafting the article or revising it critically for important intellectual content AND
 - provide final approval of the version to be published and be accountable for the manuscript AND
 - be accountable for the parts of the work he or she has done, be able to identify which co-authors are responsible for specific other parts of the work and have confidence in the integrity of the contributions of their co-authors
3. Key publications that report on research directly related to AI-MULTIPLY and detailed in AI-MULTIPLY grant applications and/or research protocols will be published with key named authors together with the banner of 'the AI-MULTIPLY Consortium'. An appendix detailing the role of each contributor will be included in any publication. This will include:

People who have led on formulating the research questions, data analysis via the AI-MULTIPLY Management Committee **and Data Integration and Analysis Group** (see appendix 2) and interpretation. Contributors will vary depending on the research question; and

Each of the authors within the AI-MULTIPLY consortium and / or the Management Committee, in the order that is decided, so that they appear on PubMed index (or similar databases). NB there may be a limitation on the number of authors that can appear; authors should check early with the target journal to clarify the listing arrangements and if numbers of authors exceed the limit, discuss with the Management Committee).

4. Publications by investigators outside of the AI-MULTIPLY consortium who make substantial use of AI-MULTIPLY data in studies that do not form part of the AI-MULTIPLY consortium must formally acknowledge the kind support of the AI-MULTIPLY consortium.
5. Suggestions for the order of authors in the named list:
- a. Put key “doers” in front
 - a. Put key senior authors at the back
 - b. Designated ‘banner authors’ (1st/2nd and 2nd last/last) will be determined for each of the specific research questions/ key publications
 - c. First authorship and senior authorship may be shared between 1st/2nd and 2nd last/last, respectively
 - d. In the author list, the 1st/2nd and 2nd last/last author positions should be agreed and if there is disagreement, this should be resolved by the Management Committee.
 - e. Have 2 Corresponding Authors
 - f. Vary the order of authors from paper to paper to give all key people a chance of prominent authorship, and to reflect the strength of their contributions to particular papers
 - g. The rest of the authors can be placed in the middle of the list in alphabetical Order

- h. An example might be JN Smith*, BM Jones*, GP White, ER Brown†, J Morgan† and the AI-MULTIPLY consortium (or on behalf of the AI-MULTIPLY consortium - depending on journal style/requirements). * denotes joint 1st author, † joint senior author
6. To enable review against potential intellectual property (IP) and cross reference to NIHR agreement, papers should be emailed to the Management Committee at least 4 weeks prior to submission for comments on issues such as format, acknowledgements and scientific claims, but not to provide internal peer review. A near-final version of manuscripts should be emailed to all named authors on the understanding that there will be a short turnaround time for comments as many of the papers will be under competitive pressure.
 7. Abstracts are to be governed by similar guidelines on authorship and should also be sent to the Management Committee at least 10 working days before submission.
 8. Contributors Listed in Acknowledgments

All contributors who do not meet the criteria for authorship should be listed in an acknowledgments section.

Examples of those who might be acknowledged include:

- a. An investigator who has contributed to the acquisition of data but who has otherwise not contributed to the study design/analysis or interpretation. Such investigators should be listed, with contributing hospital or institution, and acknowledged as contributing to the acquisition of data for the AI-MULTIPLY consortium.
- b. Individuals who have provided purely technical/management help, writing assistance, or a department person who has provided general not scientific support.
- c. Members of the Patient and Public Engagement (PPIE) Group who have commented on the research protocol or have been asked to review and/or provide comments on a paper. For clarity, members of the PPIE group who contribute materially to research design and paper writing as designated under point 2 would be included as authors.
- d. Because readers may infer their endorsement of the data and conclusions, persons must give written permission to be acknowledged.

Appendix 1 – [NIHR AI-MULTIPLY agreement](#)

Appendix 2 – AI-MULTIPLY Committees

(1) AI-MULTIPLY Management Committee:

Nick Reynolds (Chair)
Mike Barnes (Deputy Chair)
Vanessa Apea
Alastair Burt
Megan Clinch
Ceri Durham
Olivia Grant
Barbara Hanratty
Tom Lawton
Dexter Canoy
Paolo Missier
Daniel Stow
Hamish McAllister-Williams
Chris Plummer
Sohan Seth
Deborah Swinglehurst
James Wason
John Isaacs
Neil Watson
Adam Todd
Soraia Sousa

Project management support

Carly Flowers
Michelle Miller
Kat Richardson

(2) AI-MULTIPLY Steering Committee:

Professor Frances Mair, University of Glasgow (Chair)
Chairs and members of the Management Committee
Representatives of Patient and Public groups
Members of the external Independent Advisory Board (IAB)
Representatives from Funder and Sponsor

(3) External Independent Advisory Board (IAB)

Professor Frances Mair, University of Glasgow (Chair)

Dr Wasim Baqir (Clinical pharmacist at Northumbria Healthcare NHS Foundation Trust and NHS Care Homes Pharmacy Lead at NHS England)

Clare Howard (Clinical Lead for Medicine Optimisations at Wessex Academic Health Science Network)

(4) Data Integration and Analysis Group

Mike Barnes (Chair)

Paolo Missier (Deputy Chair)

Alisha Angdembe

Wasim Iqbal

John Casement

Philip Darke

Fabiola Eto

Rafael Henkin

Dennis Lendrem

Dexter Canoy

Sabrina Munir

Nick Reynolds

Deborah Swinglehurst

(5) PPIE Contributors

Members of the Newcastle University PPIE group:

Abdul Mirza

Alan Smith

Amanda Harness

Arif Hoque

Brenda Riley

Carrol Lamouline

Claire Jowett

Dave Taylor

Ewa Siwec

Fiona Cammack

Francesco Palma

Giorgia Perri

Madiha Sajid

Margaret Ogden
Minoo Parekh
Neil Harcourt
Peter Smith
Rashmi Kumar
Ray Holding
Rita Raja
Samina Begum
Sandra Ramshaw
Sarah Markham
Simon Horvat-Marcovic
Stella Macpherson
Susan Mountain
Victoria Bartle
Wendy Hope

Members of the Social Action for Health PPIE group

Appendix 4 – AI-MULTIPLY [Data Management Plan](#)