Validation of B-COMPASS

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FACTS & FIGURES

Start date:	September 2021
End date:	February 2027
Coordinator:	Universidad Politecnica de Madrid
Industry lead:	Pfizer Limited
IMI funding:	5 948 903 €
EFPIA in kind:	5 590 008 €
Other:	281 000 €
Total Cost:	11 819 911 €
Project website:	https://beamerproject.eu/
Social media:	@beamerproject

CHALLENGE

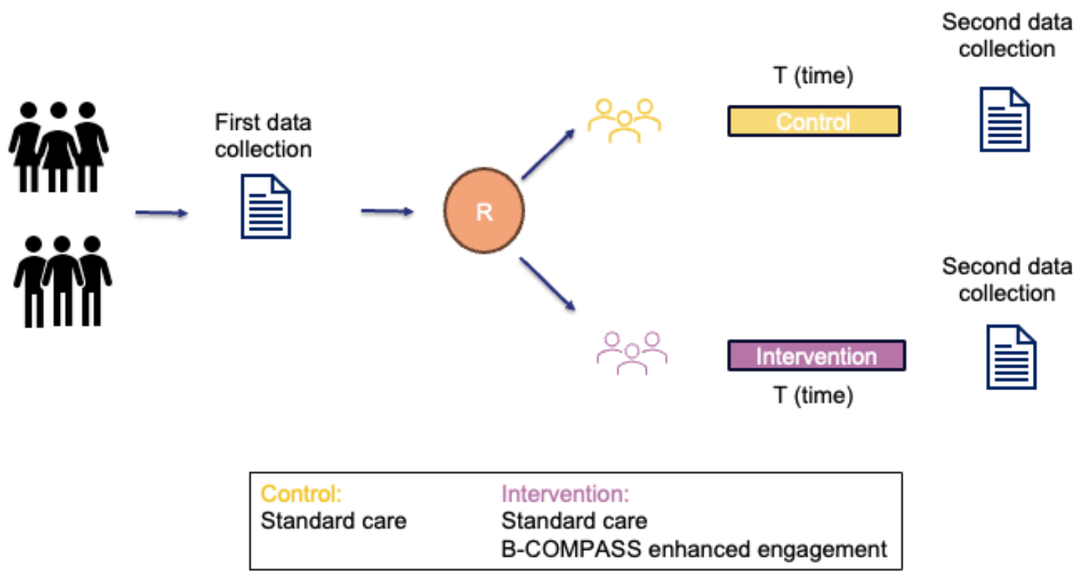
Non-adherence to treatment drives poor clinical outcomes and burdens patients and health systems:

- 50% of medicines are not taken as prescribed, with lower adherence when behaviour change is needed
- Est. 200 000 premature deaths each year in the EU
- Approx. €125 B in avoidable healthcare costs annually

BEAMER is addressing non-adherence by developing B-COMPASS, a disease-agnostic model intended to identify patient needs and enable tailored support. My role in the project is to plan and monitor the validation of B-COMPASS in diverse real-world settings.

APPROACH & METHODOLOGY

Validation study using stratified individual or cluster allocation, supplemented by single-arm studies.
Quantitative adherence data are combined with qualitative data from interviews and focus groups.



B-COMPASS groups patients by likely adherence and support needs. We test whether it:

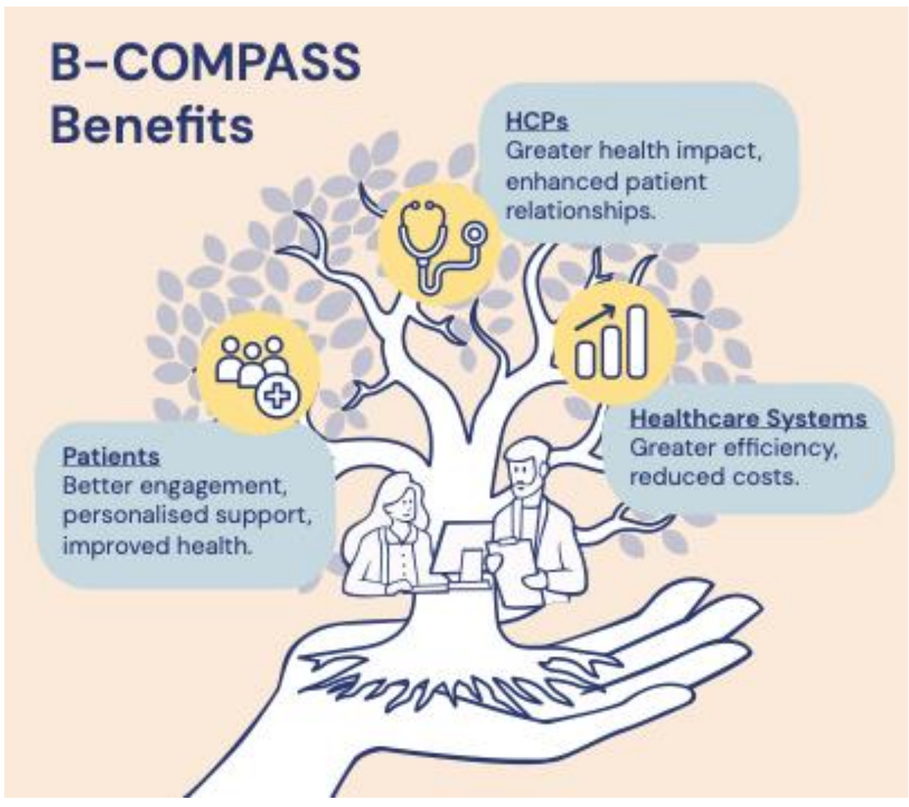
- Predicts who struggles with treatment adherence
- Forms valid patient groups according to their needs
- Identifies the right support needs for patients
- Stays stable over time and improves adherence
- Works well for patients and healthcare providers
- Cuts avoidable healthcare use and cost

RESULTS

Preliminary findings from the WP I lead on empirical testing of the proposed model show that:

- B-COMPASS patient groupings largely match how patients and clinicians perceive needs and priorities
- B-COMPASS–guided engagement is seen as relevant and responsive

This suggests that a disease-agnostic model can identify who needs what support, enabling a shift from generic adherence campaigns to more personalised support.



VALUE OF IMI COLLABORATION

IMI's PPP was critical in moving B-COMPASS from concept to real-world validation:

- Together healthcare and pharma partners contributed empirical data from diverse settings in 12 countries, far beyond the reach of any single organisation
- Testing in real-world settings, combined with academic and clinical sites, enabled cross-sector validation rarely feasible outside PPPs
- Collaborative specialist staff and infrastructure enable the curation and standardisation of heterogeneous datasets at scale
- Trans-disciplinary collaboration produced a model that is statistically robust, clinically meaningful, and ready for real-world implementation

Without IMI's PPP, achieving this level of scale, data diversity, and validation would have been more difficult.

CAREER IMPACT

Being part of this PPP has:

- Strengthened my skills in large-scale data management, cross-sector coordination, and communication between technical and clinical teams
- Enhanced my leadership and stakeholder engagement through leading a WP in a multidisciplinary consortium
- Deepened my experience in developing digital, data-driven healthcare solutions

This work has received support from the EU/EFPIA/Link2Trials/PACE Clinical Innovative Medicines Initiative [2] Joint Undertaking (BEAMER grant no 101034369).
The author is solely responsible for this communication.