

How Can Health Technology Assessment Help in Addressing Challenges in Drug Repurposing? A Conceptual Framework

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1. Introduction

Drug repurposing is finding new indications for already existing drugs, that can bring **cost-effective drugs** for unmet medical needs. However, it faces **many challenges** hindering its full potential^{1,2}, and the role of health technology assessment (HTA) in supporting drug repurposing remains **unexplored**.

2. Objective

To develop a **comprehensive framework** of key challenges in drug repurposing and explore how and when HTA can help in addressing them.

3. Methods

- 1,478 articles were reviewed for identifying challenges in drug repurposing
- Thematic analysis used for developing the framework by creating categories and sub-categories among the challenges
- A focus group and semi-structure interviews with experts from the **REPO4EU consortium**; an EU platform for supporting drug repurposing research, were conducted for assessing the completeness of the framework
- Challenges were matched with HTA methods that can help in addressing them, using two reviews^{3,4} that categorized HTA methods according to their objectives.

4. Results

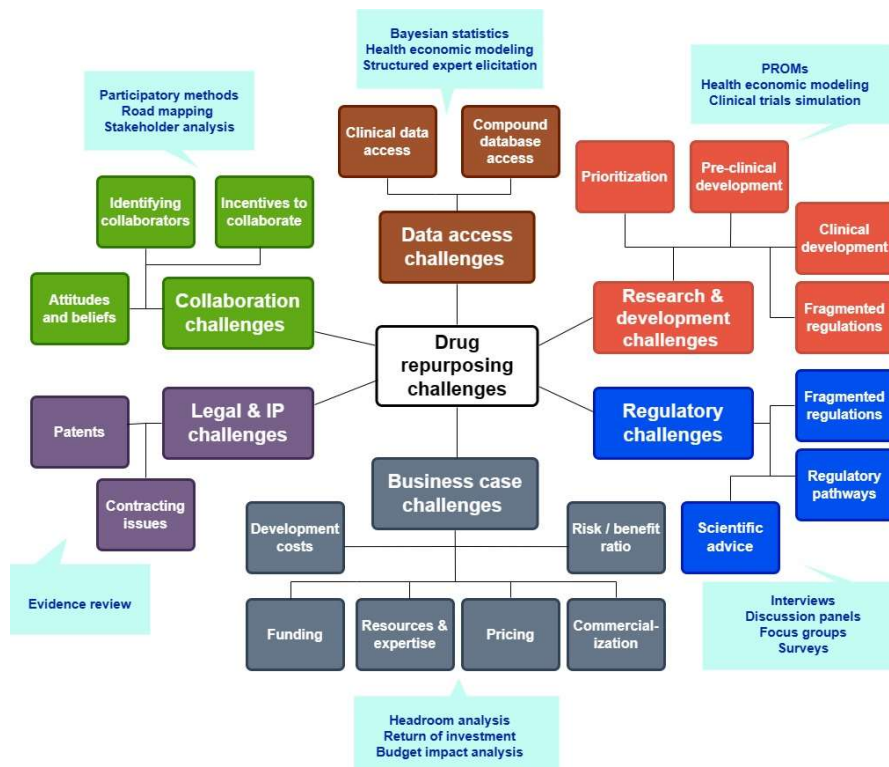


Figure (1): Framework of challenges in drug repurposing and HTA methods that can help in addressing them

5. Conclusion

- ❖ Our framework of challenges in drug repurposing highlights the need of collective solutions, including HTA methods, to help address these interconnected challenges
- ❖ Incorporating HTA methods on iterative and flexible basis in drug repurposing research can provide evidence for decision-making, assess the value proposition of the repurposed drug and inform further research.
- ❖ The REPO4U platform will include an HTA toolbox that includes economic evaluation templates, guidance on patient-reported outcome measurement, prioritizing drug repurposing candidates, pricing arrangements and regulatory recommendations that can support bringing the value in drug repurposing research.

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