



INTRODUCTION

- In prior published work, we defined a core set of disease-agnostic patient-informed value elements to be tailored to specific conditions using an iterative, patient-engaged process.¹
- Our recent study identified six key attributes for individuals living with major depressive disorder (MDD) in managing their condition: Mode of Treatment, Time to Treatment Helpfulness, MDD Relief, Quality of Work, Interaction with Others, and Affordability.² (Figure 1)
- Existing economic evaluations of treatments for major depressive disorder (MDD) rely heavily on clinical trial data such as remission and relapse. While these outcomes are important to both patients and health care providers, patients may also value other aspects of treatment.
- No existing method systematically intersects patient input and modeling to support economic evaluations from the patient perspective - a significant gap in patient-informed value assessment for MDD.

STUDY OBJECTIVE

- This study aims to identify whether previous cost-effectiveness analyses (CEAs) in MDD addressed these patient-important attributes, whether patients were engaged in the modeling process, and whether patient preferences for treatment attributes were incorporated into the economic evaluations.

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METHODS

- Using Embase and MEDLINE, we identified published, full-length original research describing model-based CEAs for MDD treatment.
- We extracted study characteristics (e.g., model perspective), and whether and how models addressed the aforementioned patient-important attributes.
- Additionally, we identified whether patients, caregivers or families were included in the modeling process, and whether any model inputs were elicited directly from people with MDD.
- We summarized the extracted model attributes and synthesized how models addressed the listed patient priorities.
- The identified study attributes were compared to MDD value elements to 1) suggest how future economic evaluation might utilize patient-informed elements, and 2) suggest conceptual and technical considerations to implement patient-informed value elements.

Figure 1. Key Attributes for Individuals Living with Major Depressive Disorder

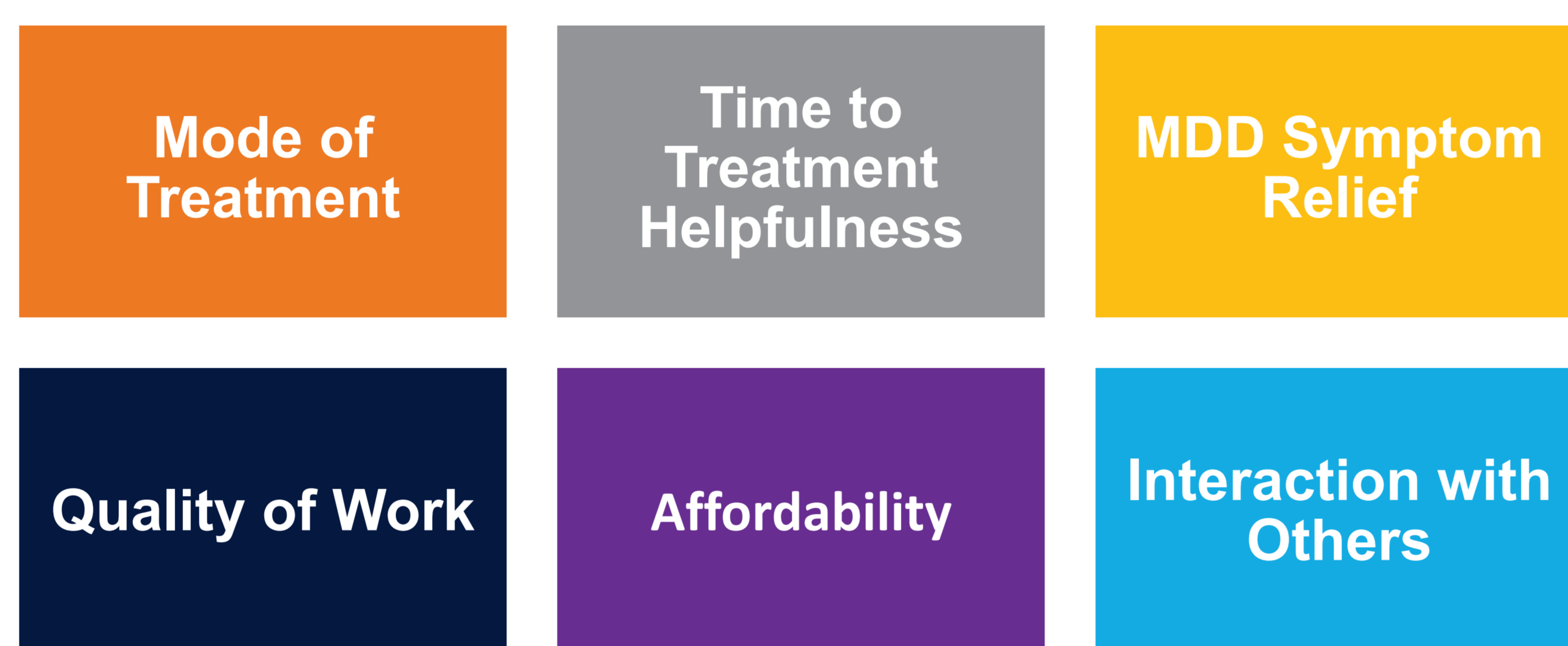


Figure 2. Conceptual and Technical Considerations to Translate and Implement Patient-Informed Value Elements for Economic Evaluation

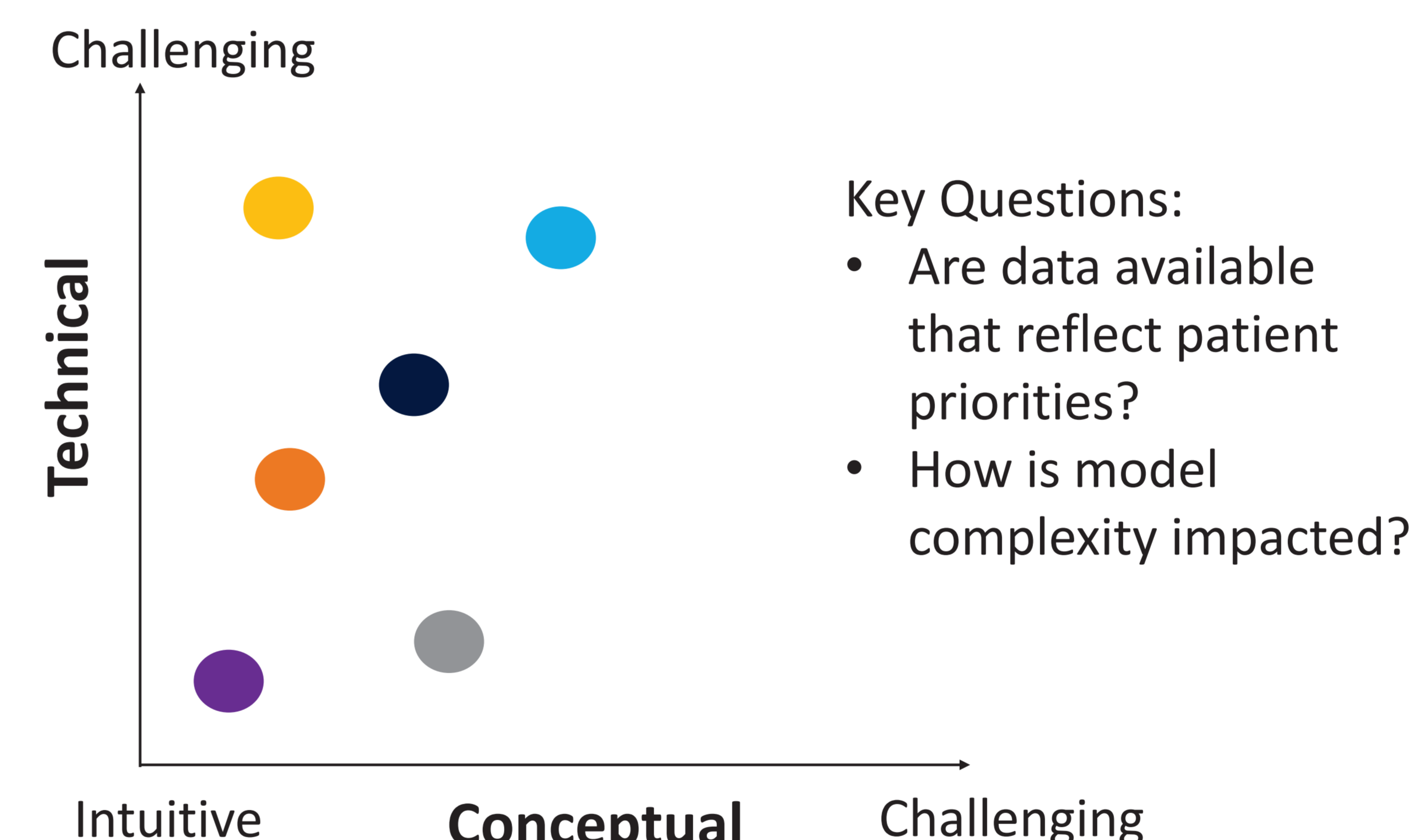


Table 1. Recommendations to Translate Patient-informed Elements for Economic Evaluation.

Health States and Outcomes:	Reflect patient-important outcomes using measures that are meaningful to patients (e.g., days of feeling hopeful)
Patient Engagement in VA:	Inform uncertainty in model structure or inputs Allow model structure to reflect a range of treatment types in comparisons Enable parameter uncertainty to reflect the importance of individual attributes (e.g., data on time to treatment helpfulness)
CEA Outputs:	Productivity was a key attribute important to patients and could be reflected as an alternative denominator

RESULTS

- Of the 1,369 abstracts screened; 253 were included in full-text review; 76 met the inclusion criteria.
- Publication year ranged from 1995-2020; 33 studies reported a societal perspective; 20 compared multiple treatment modes.
- Time to treatment effect was reflected in model cycle length (range: 4 weeks to 1 year).
- 34 studies addressed work productivity and 9 patient out-of-pocket costs. Interaction with others was not explicitly modeled in any study.
- Two studies elicited inputs directly from patients. Two papers documented formal value assessments and reported patient stakeholder participation in the process (e.g., model scoping).

CONCLUSION AND RECOMMENDATIONS

- While productivity and out-of-pocket costs are often included in models from the societal perspective, very few studies addressed other attributes important to patients, used patient-derived inputs, or included patients in the evaluation process.
- Methods to incorporate patients and their valued elements as part of a value assessment are needed. Table 1 recommends approaches for each objective.
- Current methodology suggests that affordability would be conceptually and technically intuitive to implement, while elements such as symptom relief or mode of treatment are conceptually intuitive but technically challenging. MDD-specific elements such as interaction with others might be both conceptually and technically challenging to implement (Figure 2).

REFERENCES

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