Should Al predict behaviour? Ethical considerations of using artificial intelligence (AI) to allocate livers

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BACKGROUND Livers are a scarce resource Liver allocation decisions are medically and othically complex

RESEARCH QUESTIONS

- 1. Should we use AI in liver allocation?
- 2. How can we create and implement liver allocation AI ethically?





and ethically complex



- Artificial intelligence (AI) can assist with complex decisions
- Many AI proposals have been made with little ethical or empirical analysis

METHODS O C D D Empirical (online quantitative survey of 172 UK laypeople) Combination of theoretical and empirical Survey design (behaviour section 1):



Natural group: patient 2x likely to reject liver due to immunological factors

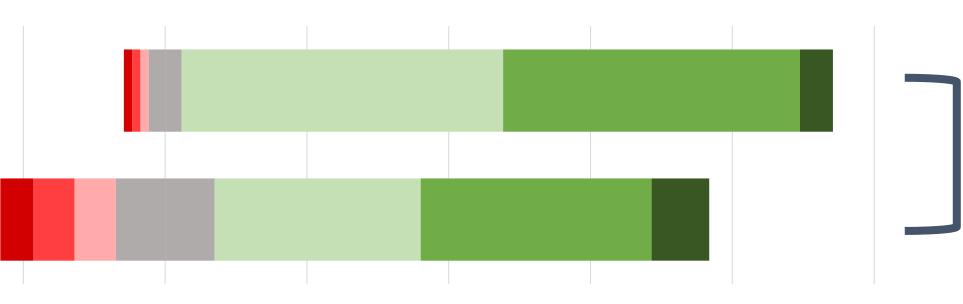
Behavioural group: patient 2x likely to reject liver due to noncompliance with immunosuppressants

EMPIRICAL FINDINGS

1. "This patient should be deprioritised due to an Al prediction of rejection" (natural vs behavioural group)

Natural group (n=86)

Behavioural group (n=86)



40% 20% 0% 20% 40% 60% 80% 100% **% of respondents**

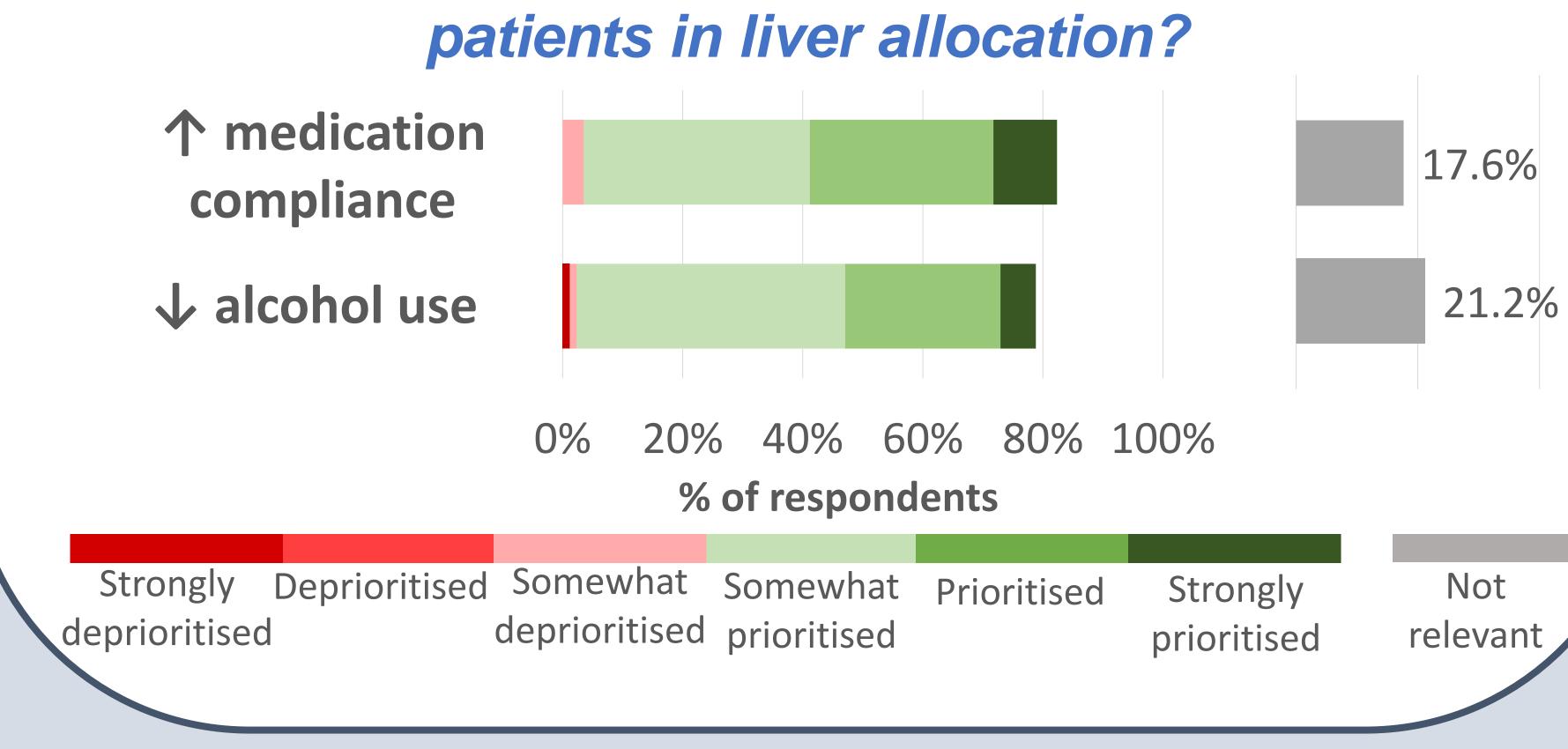
Strongly	Disagree	Somewhat	Neither	Somewhat	Agree	Strongly agree
disagree		disagree	agree nor	agree		
			disagree			

2. Should AI use behavioural predictions to prioritise

THEORETICAL FINDINGS

Should AI make behavioural predictions in liver allocation?

Against	For
Punitive	Responsibility
Discriminatory	and fairness
Ignores	Improved
possibility of	outcomes
behavioural	Consistency
intervention	(used in criminal justice)



CONCLUSION The use of AI behavioural predictions (e.g., predicted medication compliance) in liver allocation is supported by ethical analysis and this sample of participants.