

# Hearing from the Future: A Multi-Centre Survey Exploring Patient and Parent Perceptions of AI in Paediatric Otolaryngology

Ruby Sekhon<sup>1</sup>, Alechi Nduka<sup>2</sup>, Emma Whitehall<sup>3</sup>, Tobias James<sup>4</sup>, Mary Veronica Consunji<sup>5</sup>, Sarah O'Donnell<sup>2</sup>, Sunil Sharma<sup>3</sup>, Lakhbinder Pabla<sup>2</sup>, Paula Coyle<sup>5</sup>, Eishaan Kamta Bhargava<sup>6</sup>

Guy's and St Thomas NHS Foundation Trust<sup>1</sup>, Leeds Teaching Hospital NHS Foundation Trust<sup>2</sup>, Alder Hey Children's NHS Foundation Trust<sup>3</sup>, Newcastle upon Tyne Hospital NHS Foundation Trust<sup>4</sup>, Imperial College Healthcare NHS Trust<sup>5</sup>, Sheffield NHS Foundation Trust<sup>6</sup>

## Objective

Artificial intelligence (AI) has been increasingly implemented across several facets of clinical practice, including screening and diagnostics, surgical planning, and educational training. A national multi-centre survey was conducted to explore patient and parent insights towards AI driven technologies that may be employed in paediatric otolaryngology

## Methods

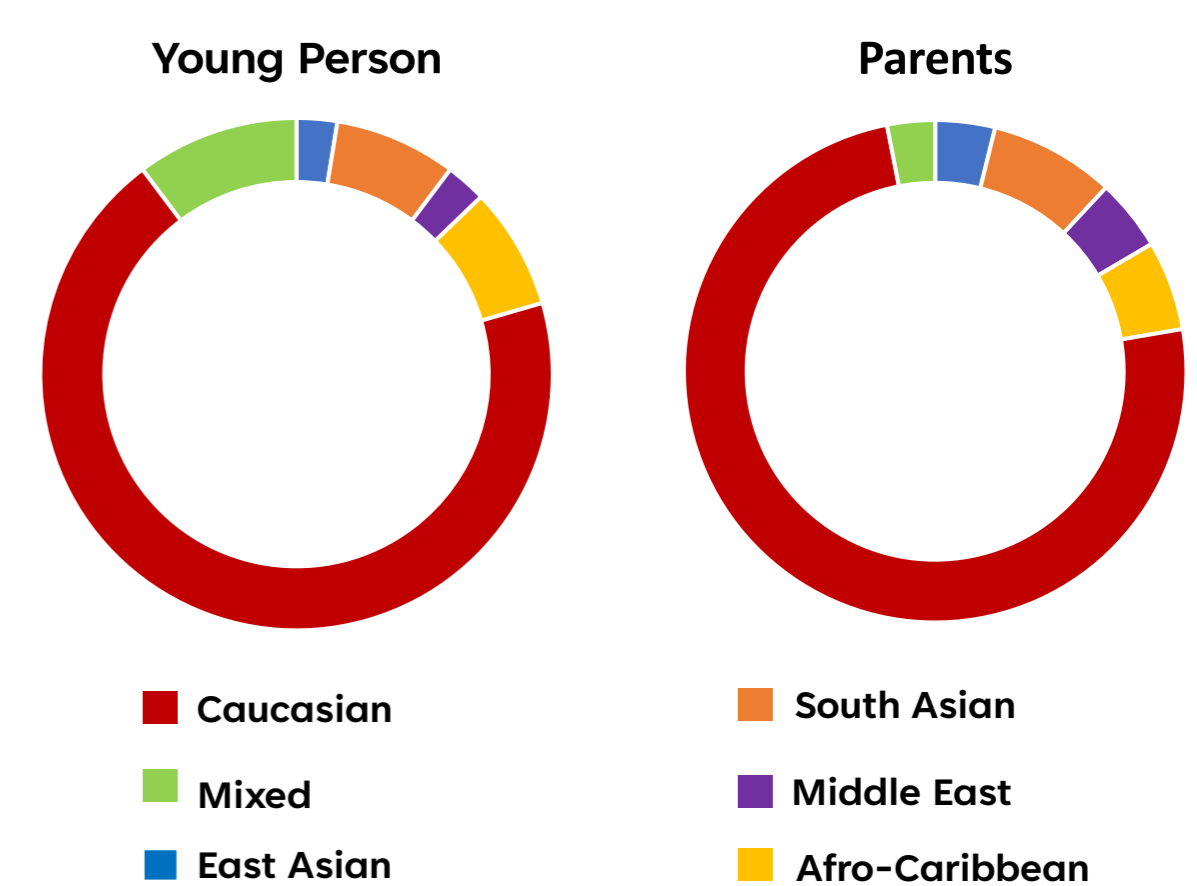
A multicentre cross-sectional survey, across six paediatric UK otolaryngology departments, invited paediatric patients, above 11 years of age and their parents, to complete an electronic questionnaire evaluating perceived advantages and disadvantages

## Patient and Parent Demographics

	Young Persons*	Parents
Participants	41	266
Average Age (years)	13.8	35.8
Gender Distribution (M:F)	16:25	47:219
Modal Highest Qualifications	Secondary	-

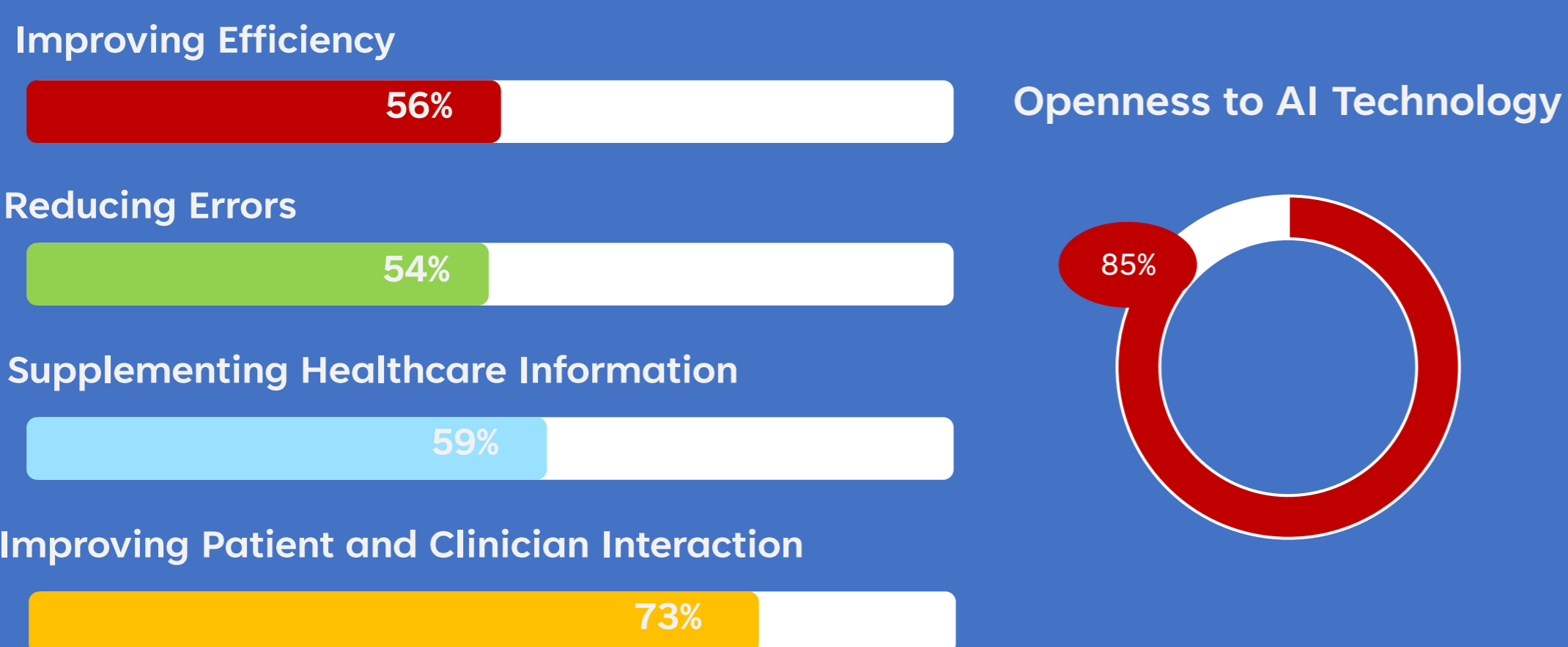
\*Young persons: Child aged 11 or above

Explored perceptions included: Improving efficiency, reducing errors. Supplementing healthcare information, Improving Patient & clinician interaction, data protection, transparency employing AI, lack of human involvement and discrimination employing AI.

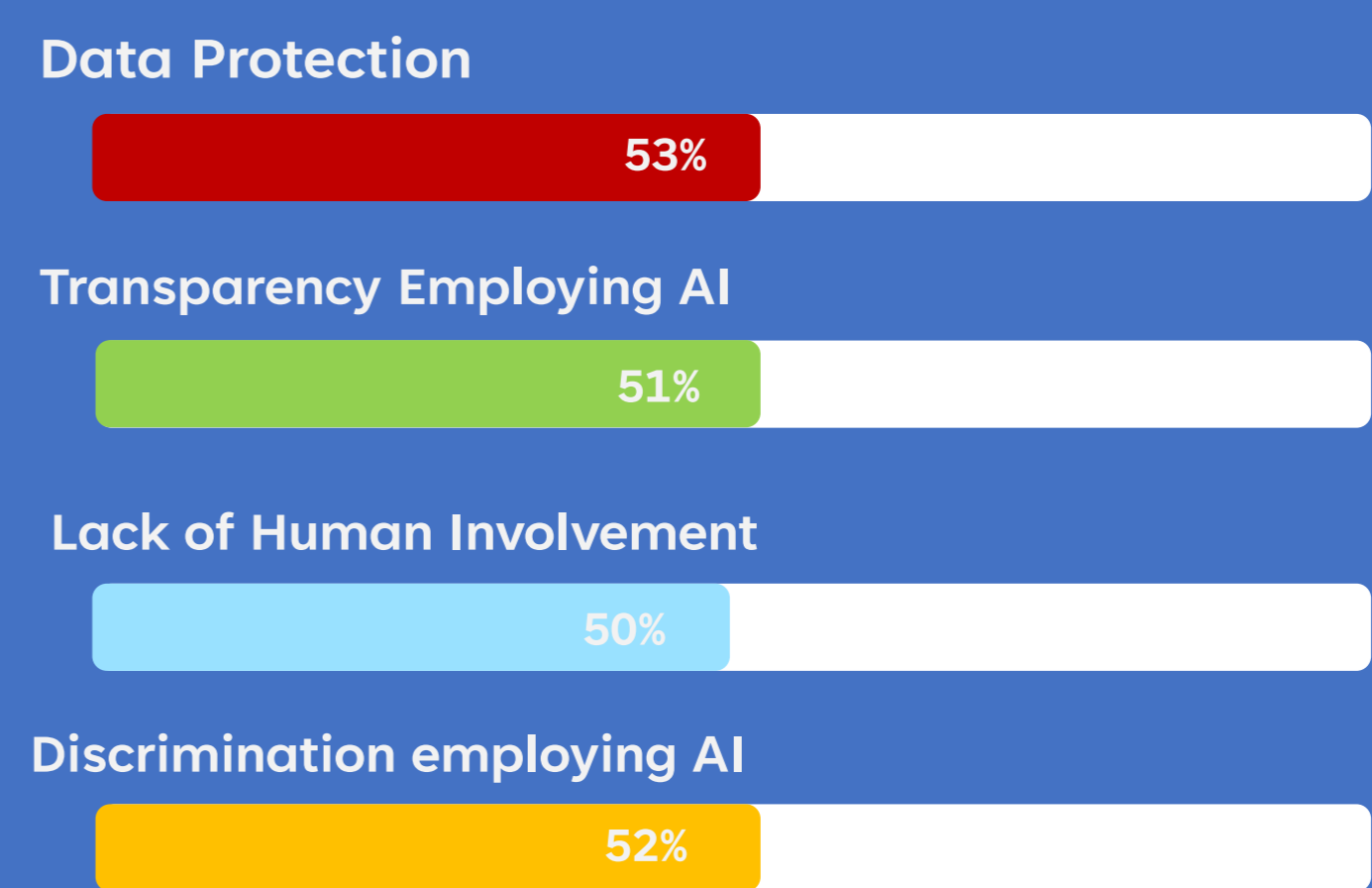


## Results

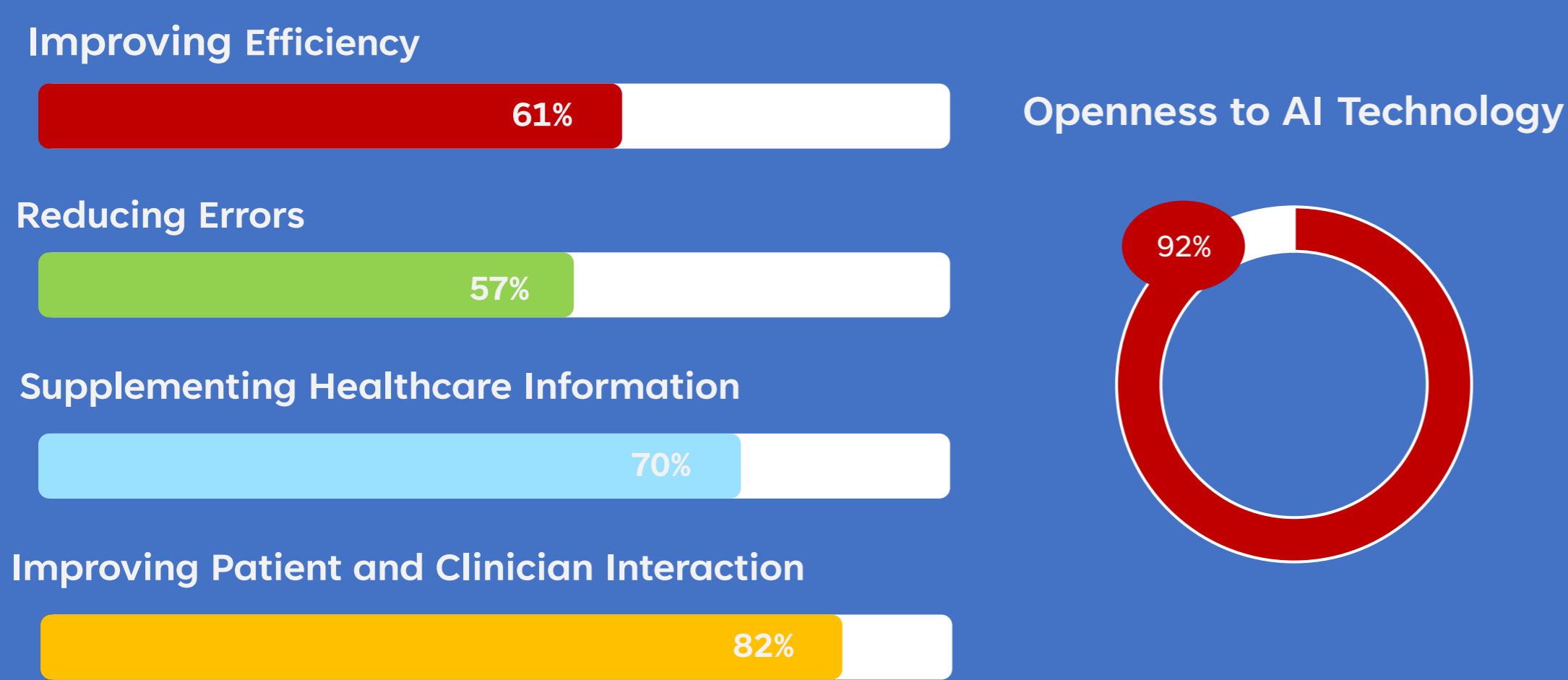
### Perceived advantages among Children



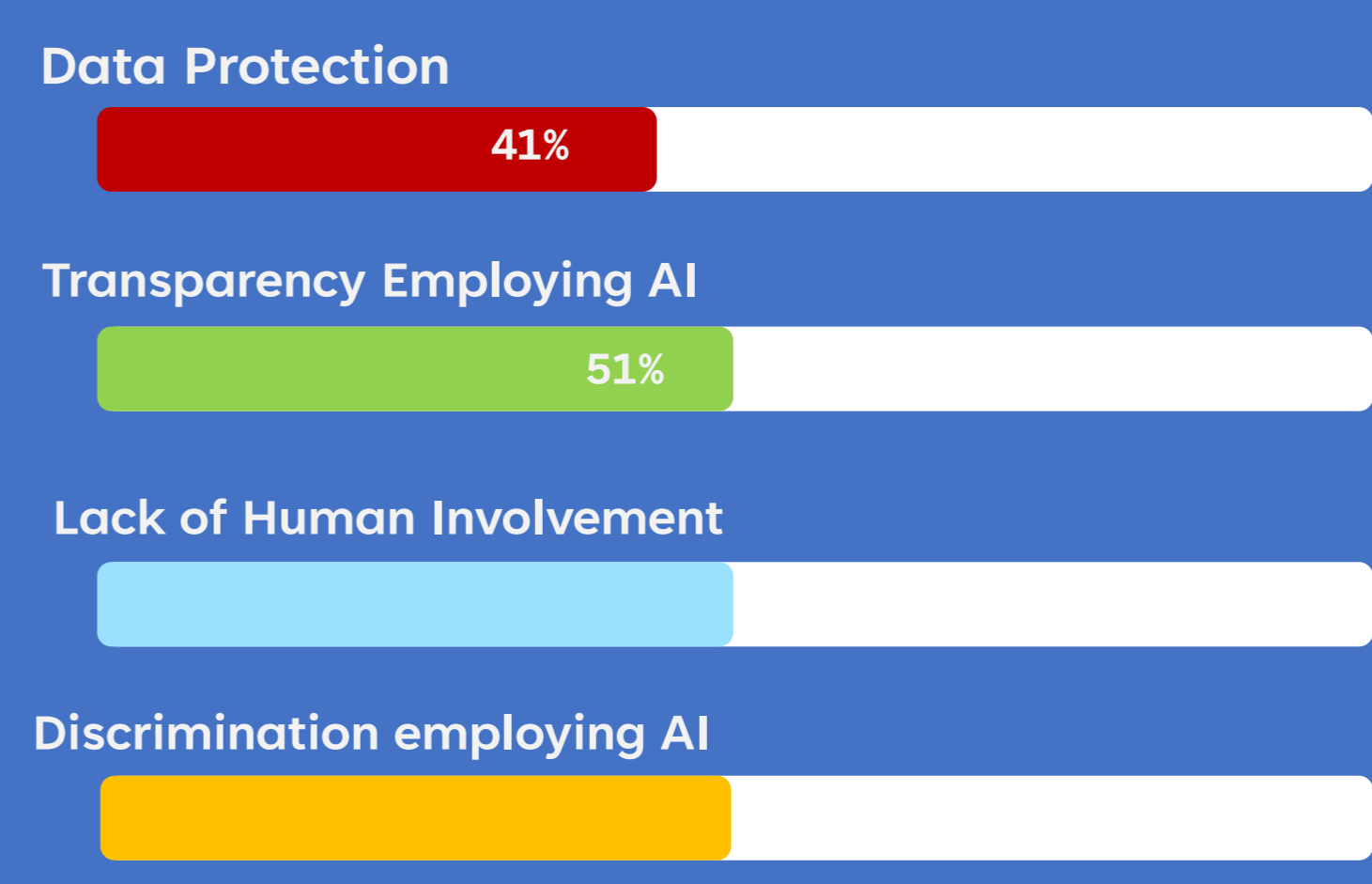
### Perceived disadvantages among Children



### Perceived advantages among Adults



### Perceived disadvantages among Adults



## Conclusion

We demonstrate compelling evidence of patient and parent perceptions towards the use of AI driven technology to inform where future resources would be most beneficial. Specifically, children and parents are amenable to the use of AI Technology in ENT. The greatest perceived advantage is to improve the patient-clinician relationship and supplement clinical information, though the greatest concerns arise from transparency of its use, lack of human involvement and discrimination of AI. Artificial Technology is best placed to supplement clinical decisions provided transparency and data is protected.