

European Achondroplasia Forum Assessing Outcomes in a New Era of Achondroplasia Treatment

Melita Irving,¹ Moenaldeen AlSayed,² Geneviève Baujat,³ Tawfeg Ben-Omran,⁴ Silvio Boero,⁵ Valérie Cormier-Daire,⁶ Brigitte Fauroux,³ Svein Fredwall,⁷ Encarna Guillen-Navarro,⁸ Philip Kunkel,⁹ Christian Lampe,¹⁰ Antonio Leiva-Gea,¹¹ Mohamad Maghnie,¹² Klaus Mohnike,¹³ Geert Mortier,¹⁴ Zagorka Pejin,³ Marco Sessa,¹⁵ Sérgio de Sousa¹⁶

1. Guy's and St Thomas' NHS Foundation Trust, London, UK; 2. Department of Medical Genomics, King Faisal Specialist Hospital and Research Centre and Faculty of Medicine, Alfaisal University, Riyadh, Kingdom of Saudi Arabia; 3. Hôpital Necker-Enfants Malades and Université Paris Cité, France; 4. Division of Genetics and Genomic Medicine, Sidra Medicine & Hamad Medical Corporation, Doha, Qatar; 5. IRCCS Istituto Giannina Gaslini, Genoa, Italy; 6. Paris Descartes University, Paris, France; 7. Sunnaas Rehabilitation Hospital, TRS National Resource Centre for Rare Disorders, Nesodden, Norway; 8. Medical Genetics Division and Pediatrics Department, Virgen de la Arrixaca University Hospital, IMIB-Pascual Parrilla, University of Murcia; and CIBERER-ISCIII, Madrid, Spain; 9. University Medical Centre Mannheim, Germany; 10. Clinic of Child and Youth Medicine, University Hospital Mannheim, Germany; 11. Hospital Universitario Virgen de la Victoria Málaga, Spain; 12. Paediatric Endocrinology Unit, IRCCS Istituto Giannina Gaslini; and Department of Neuroscience, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health, University of Genoa, Italy; 13. Children's Hospital, Otto-von-Guericke-University Magdeburg, Germany; 14. Centre for Human Genetics, University Hospitals Leuven, Belgium; 15. Association for Achondroplasia Information and Study, Milan, Italy; 16. Medical Genetics Department and Clinical Academic Center of Coimbra, Hospital Pediátrico de Coimbra; and University Clinic of Genetics, Faculty of Medicine, University of Coimbra, Portugal.

Background

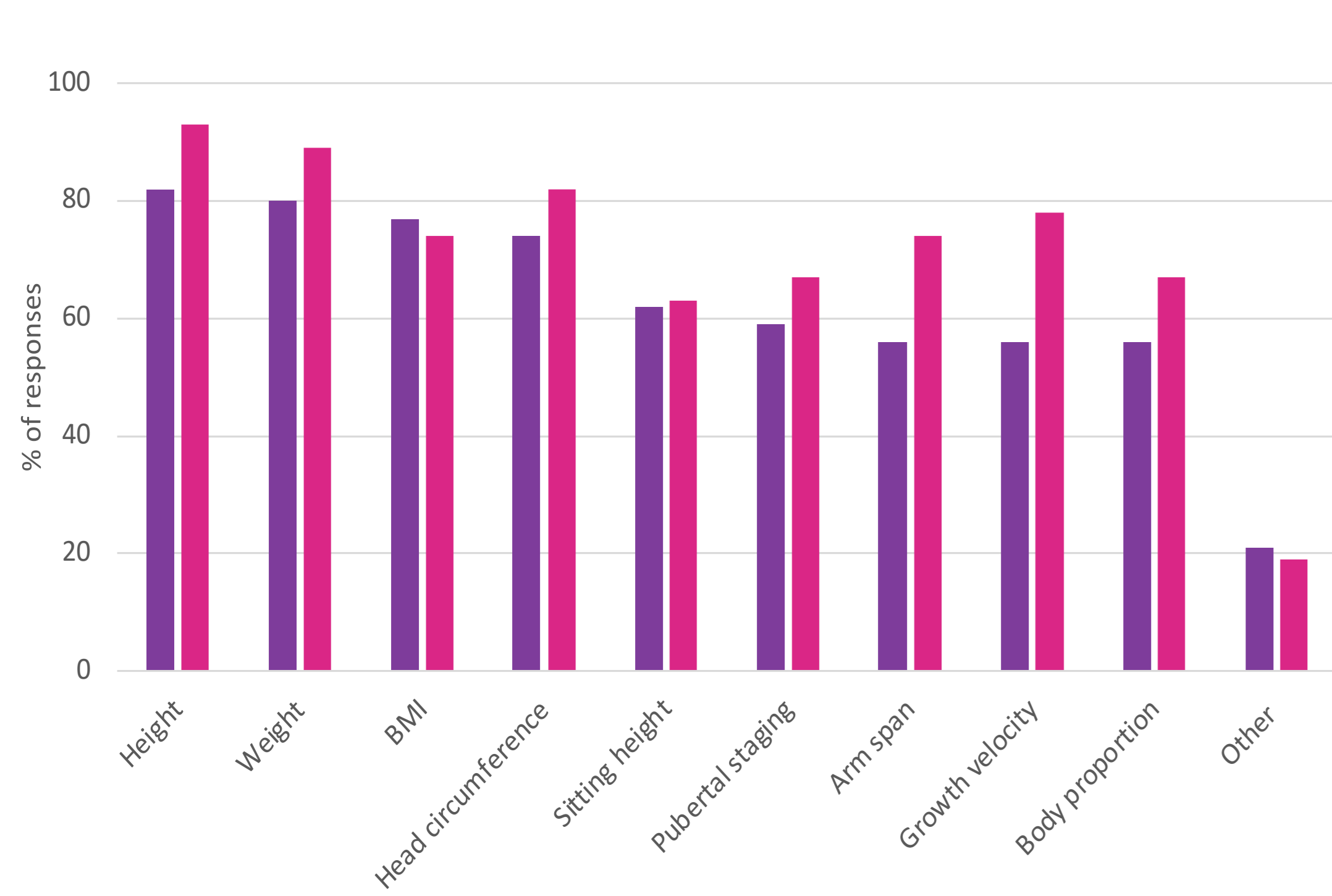
- Achondroplasia requires lifelong multidisciplinary care
- Vosoritide, which targets the FGFR3-signalling pathway, is the first commercially available therapy to treat achondroplasia; several other medical therapies are also in development
- The European Achondroplasia Forum (EAF) reviewed existing health surveillance measures to determine if
 - They still apply in clinical practice and in assessing impact of medical therapy
 - New/updated measures are needed

Methods

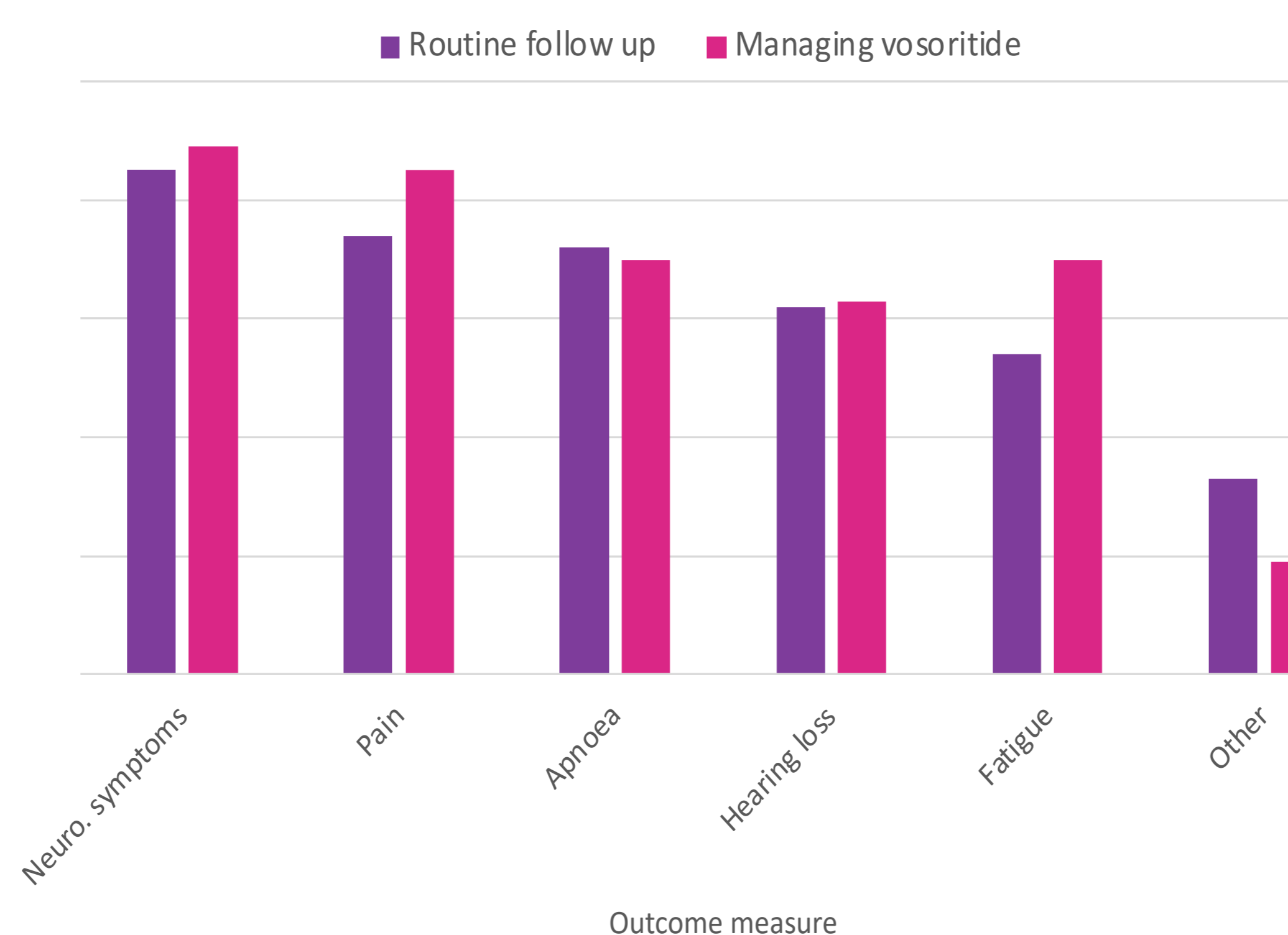
- An online questionnaire assessed health status monitoring, both in routine clinical practice and in determining response to vosoritide
 - 50 respondents representing a range of specialities from 14 countries across Europe, Latin America, the Middle East, and the USA completed the survey
- Results were discussed during an EAF workshop, held in April 2024
 - The workshop was joined by 63 attendees (38 healthcare professionals, 19 industry representative, three patient advocacy group representatives)

Responses from the EAF survey: In current practice outcomes monitored as part of routine follow-up reflect those in children receiving vosoritide

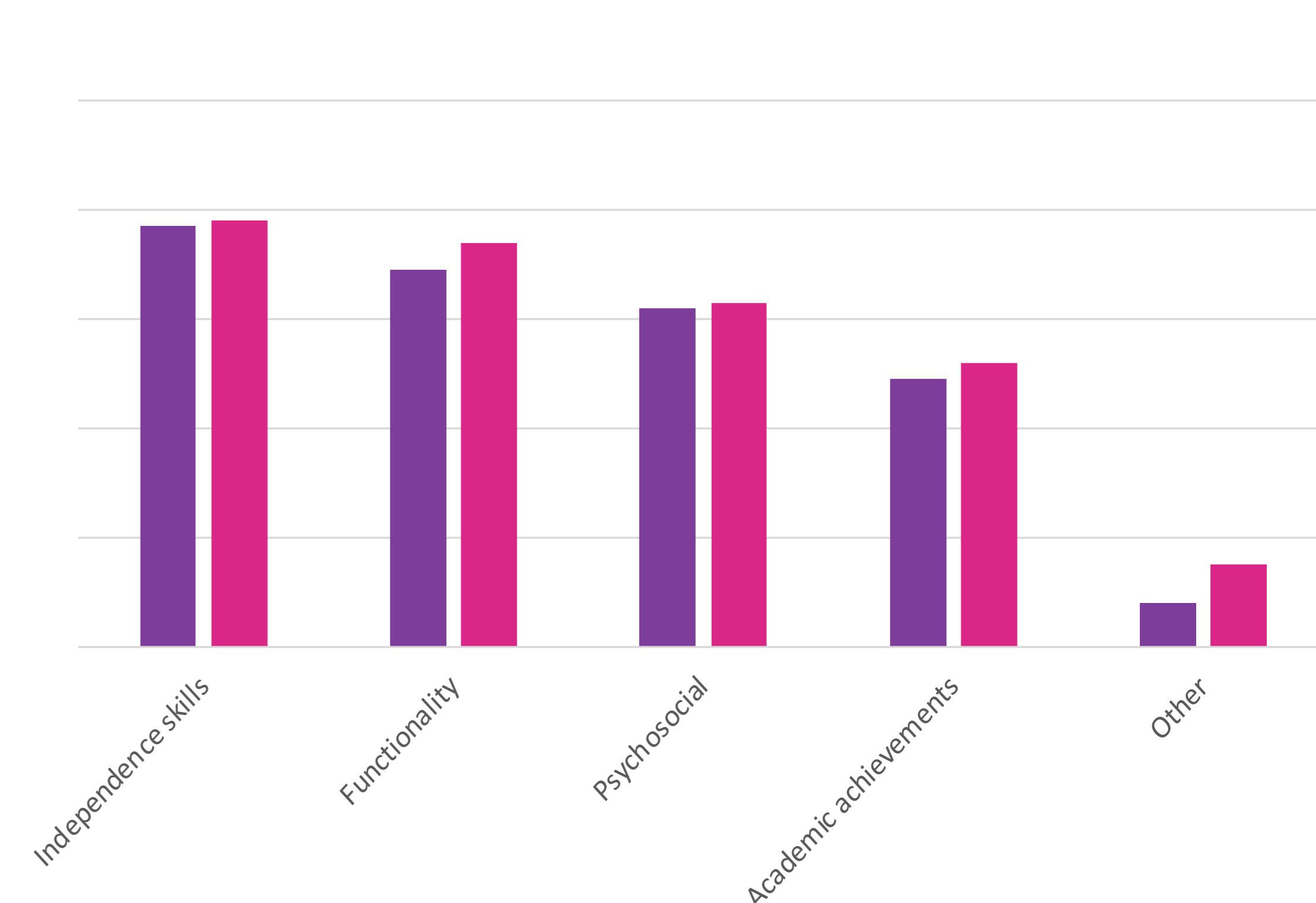
Physical measures



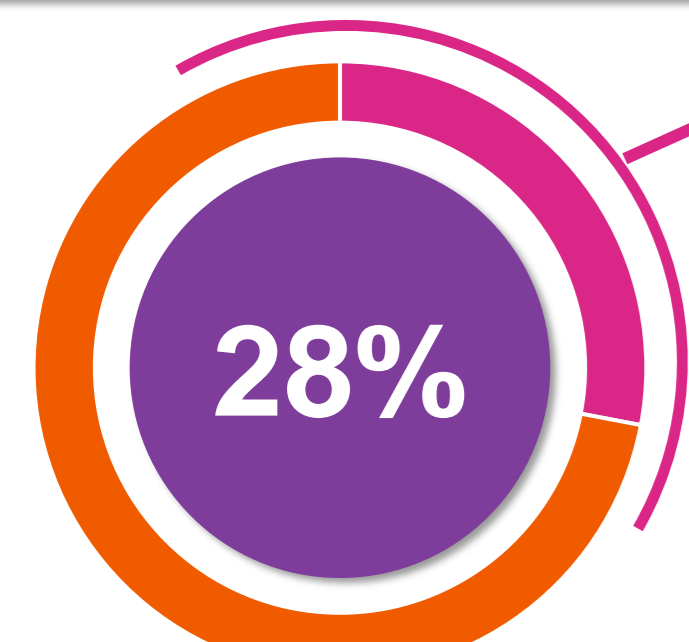
Medical history



Quality of life



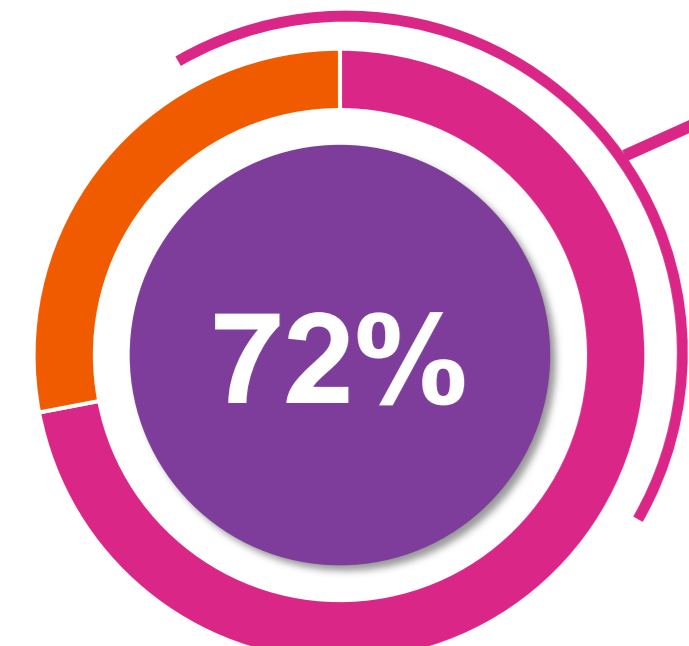
Are outcome measures still fit for purpose?



Of respondents felt that current measures **did not accurately capture outcomes in routine practice**



Of respondents managing children receiving vosoritide felt that **current measures were not accurately capturing outcomes after treatment**



Of respondents were **not collecting data in a registry**

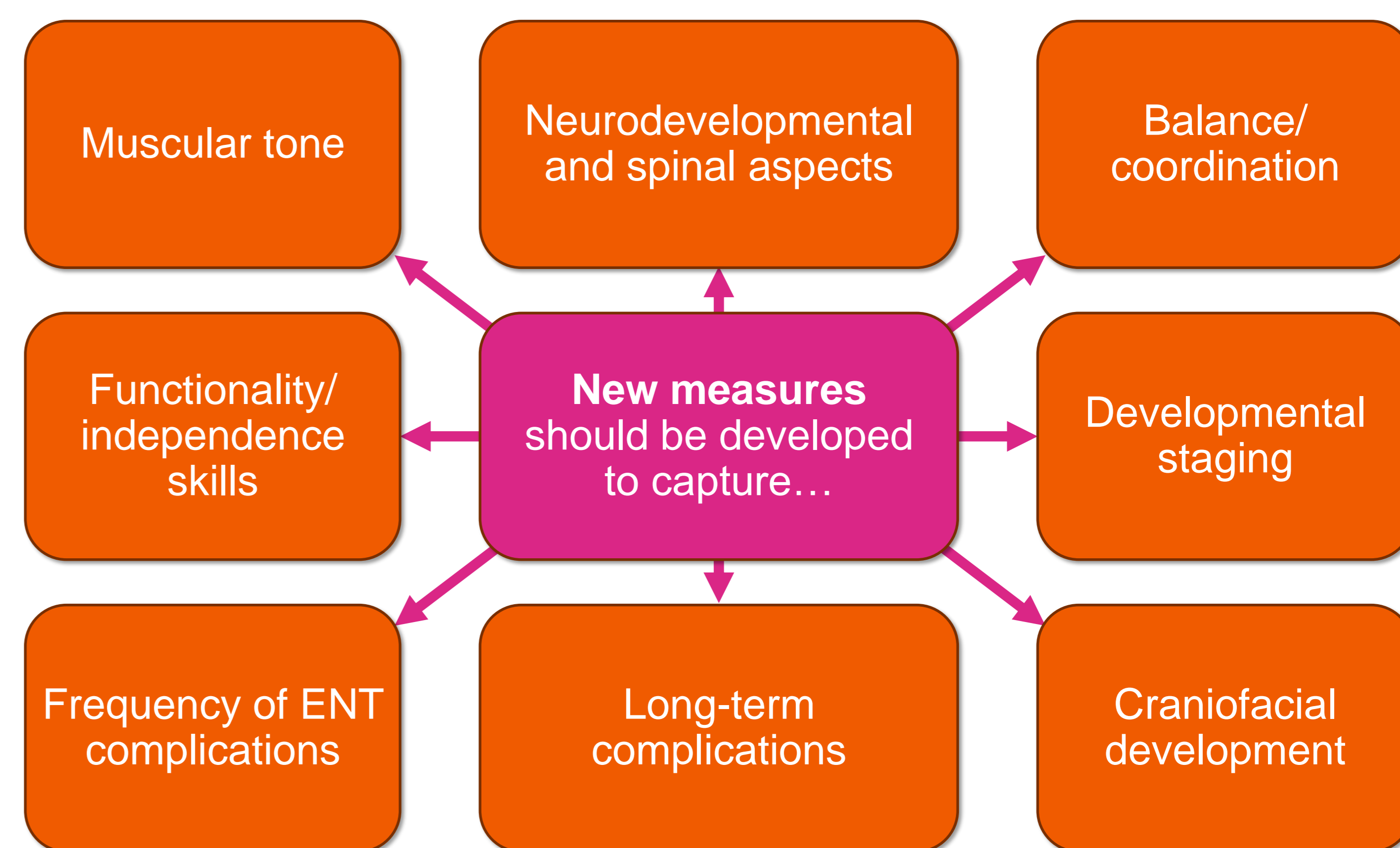
Current measures do not **exist** or do not **capture** necessary data

- Limitations in resources/funding lead to **variability in outcomes** measured and data captured
- Quality of life** is particularly challenging; some centres do not attempt to assess this due to time constraints

Does the current system of capturing outcomes work effectively?



With the advent of medical therapies, what is needed for the future?



Conclusions

- Collecting accurate, standardised data is essential** to understanding the daily impact of achondroplasia, and determining the effect of any intervention
- Outcome measures** exist but are **not consistently and accurately used** in routine clinical practice or following up children receiving vosoritide
- With the advent of innovative therapies, this is an opportune moment to ensure outcome measures align with evolving practice
- Agreement on a standardised core set of outcomes and, a simplified, time efficient way of collecting quality of life data is needed**

