

## A Systematic Review Of Core Outcomes For Hypospadias Surgery

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### Introduction

The outcome of hypospadias surgery needs careful scrutiny. There is little consensus on what outcome parameters are essential and feasible in a routine clinical setting.

### Objective

To identify the extent of consensus that exists in contemporary scientific literature for outcomes in boys undergoing hypospadias surgery.

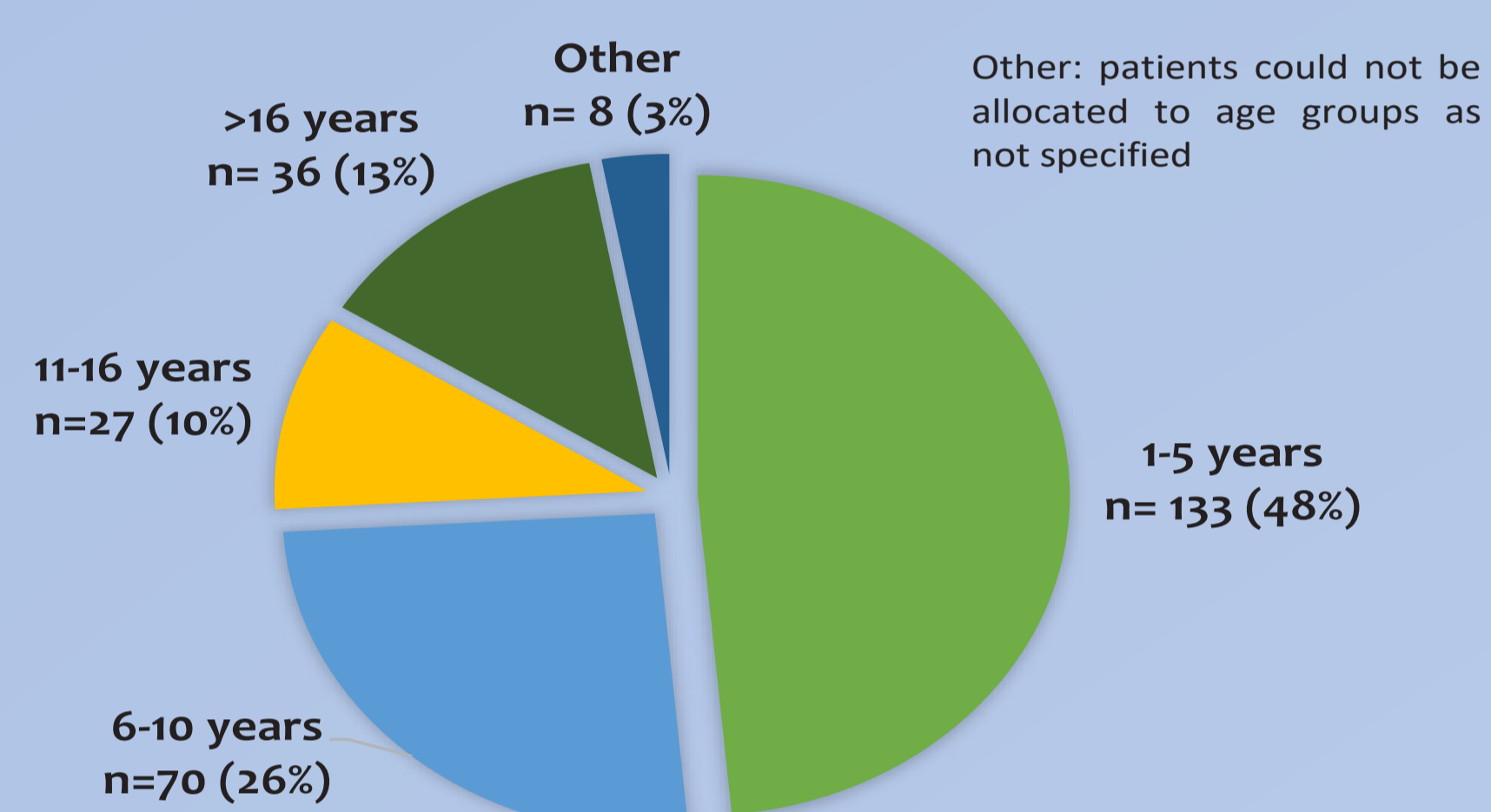
### Design

Using the terms "outcome" and "hypospadias", Pubmed was searched to identify randomised controlled trials, case controlled trials, case series, and prospective cohorts reporting on outcomes in boys with hypospadias published in the English language from 2008 to 2017. All publications reporting on outcomes after primary surgery and mixed series with cases after primary and redo surgery were included.

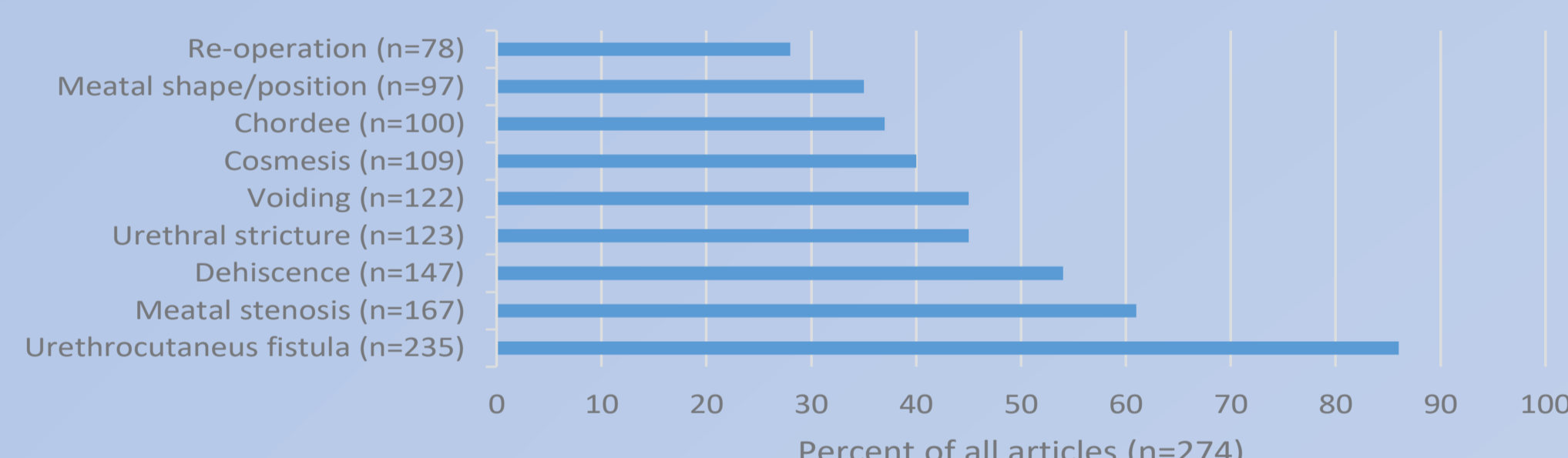
### Results

➤ Of 878 publications, 274 met the eligibility criteria

➤ Most studies reported outcomes in young boys

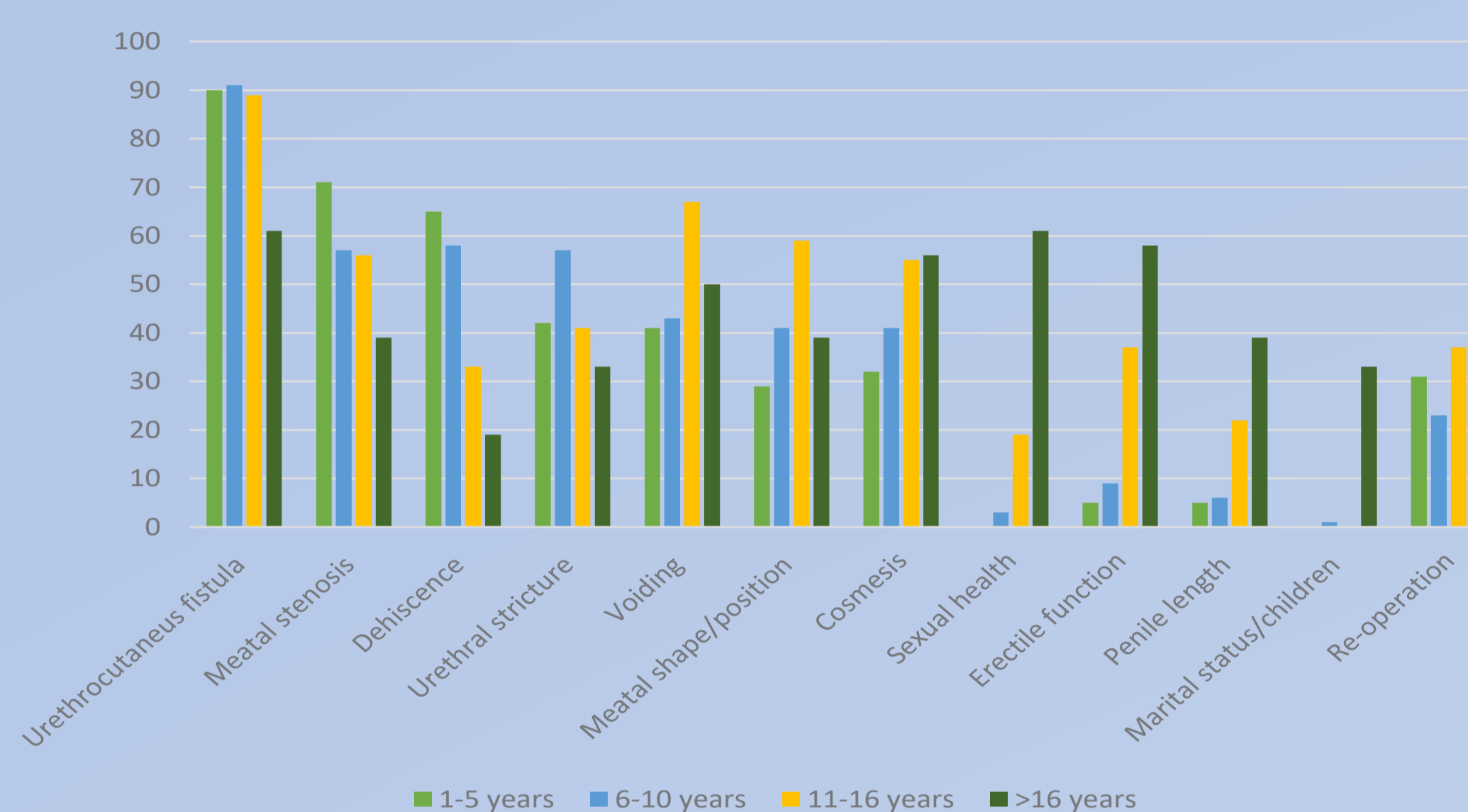


➤ N= 69 different outcomes were reported, but only n=9 outcomes were recurrently described in more than 25% of articles

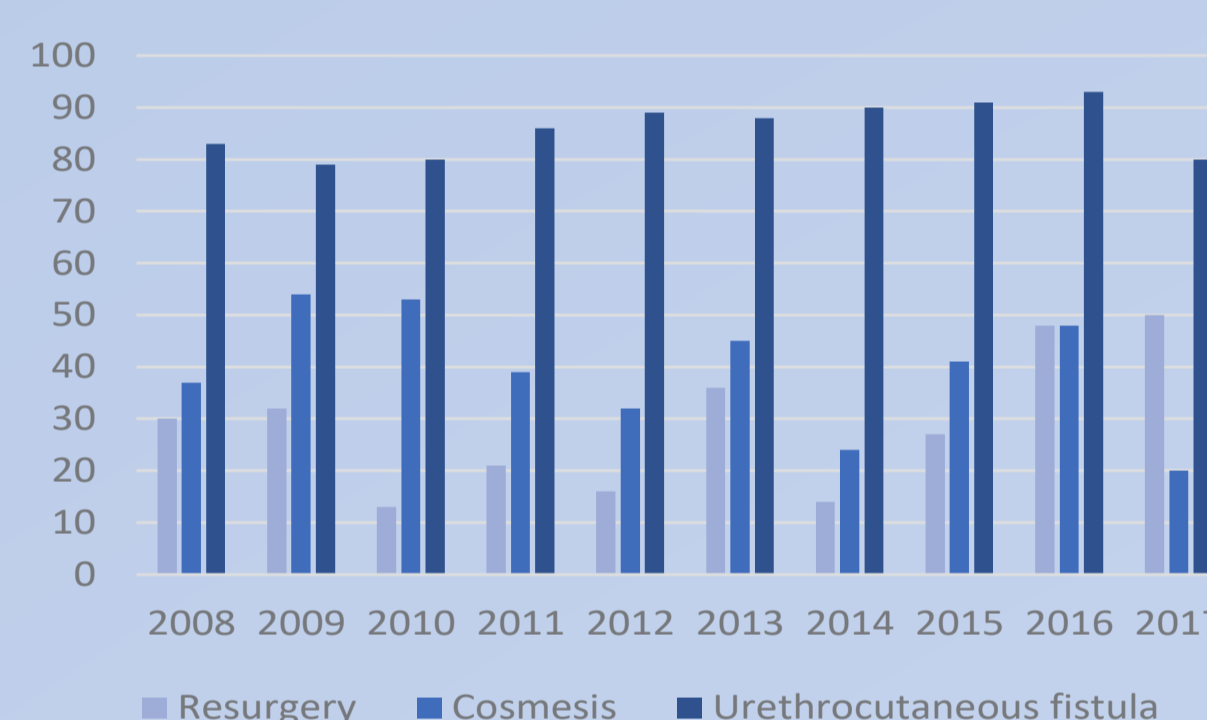


➤ Several outcomes were measured by a wide range of variables. E.g. was voiding described using 30 variables such as urinary stream, obstruction, incontinence etc.

➤ Some outcomes varied according to age



➤ Temporal outcome trends were observed (variable, increase, constant) in some reported outcomes



➤ Half of the articles reporting on cosmetic outcome (n=109) stated who (parent, patient or the surgeon) had made the judgement

➤ Among n=44 reporting tools used in n=57 articles the **Hypospadias Objective Scoring Evaluation (HOSE)** was used most frequently in 18 instances

### Discussion

✓ Outcomes for hypospadias surgery appear to be dynamic over time emphasizing the point that outcome measures cannot be directly transposed from childhood to adolescence.

✓ The lack of standardization has been highlighted repeatedly in this field. This review clearly shows that there are several outcome measures that are assessed by a majority of investigators and that should be considered as core.

✓ A standardized definition of how to measure outcomes is needed. To ensure that they become part of routine assessment, these measures need to be simple objective and should be able to be performed by a non-expert.

✓ This review can be used to inform the development of a core outcome set that can be applied as a standardized assessment tool in a routine clinical setting in an age dependent manner.

Springer, A., 2014. *Frontiers in pediatrics*  
Williamson, P.R., Altman, D.G., Bagley, H et al. 2017. *The COMET Handbook*

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