

The Standardization of Terminology of Lower Urinary Tract Function in Children and Adolescents: Update Report from the Standardization Committee of the International Children's Continence Society

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Purpose: The impact of the original International Children's Continence Society terminology document on lower urinary tract function resulted in the global establishment of uniformity and clarity in the characterization of lower urinary tract function and dysfunction in children across multiple health care disciplines. The present document serves as a stand-alone terminology update reflecting refinement and current advancement of knowledge on pediatric lower urinary tract function.

Materials and Methods: A variety of worldwide experts from multiple disciplines in the ICCS leadership who care for children with lower urinary tract dysfunction were assembled as part of the standardization committee. A critical review of the previous ICCS terminology document and the current literature was performed. In addition, contributions and feedback from the multidisciplinary ICCS membership were solicited.

Results: Following a review of the literature during the last 7 years the ICCS experts assembled a new terminology document reflecting the current understanding of bladder function and lower urinary tract dysfunction in children using resources from the literature review, expert opinion and ICCS member feedback.

Conclusions: The present ICCS terminology document provides a current and consensus update to the evolving terminology and understanding of lower urinary tract function in children. For the complete document visit <http://jurology.com/>.

Key Words: terminology, consensus, child, urinary bladder, urination disorders

Abbreviations and Acronyms

ICCS = International Children's Continence Society

LUT = lower urinary tract

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THE standardization of terminology for pediatric bladder and bowel function is critical in providing a platform for optimal understanding, communication and treatment across multiple health care providers who care for children and adolescents with LUT dysfunction. Terminology that is applicable internationally is particularly pertinent due to the global prevalence of pediatric LUT dysfunction and the numerous specialists who treat these children and adolescents. LUT dysfunction is a broad term that encompasses subsets of LUT dysfunction with different manifestations. The heterogeneity of symptoms is at times overlapping and at other times unique to the subsets of LUT dysfunction. Thus, universally accepted terminology of pediatric LUT dysfunction is imperative to reduce confusion among providers. Standardized terms are also critical for comparing research and study outcomes to optimally promote the investigative understanding of pediatric LUT dysfunction.

The ICCS is a unique organization whose members comprise multiple disciplines and specialties from almost every continent who care for children with bladder and bowel incontinence. Thus, the ICCS is uniquely positioned to provide guidance in the standardization of terminology for bladder and bowel dysfunction in children and adolescents.

During the last decade the second report from the Standardization Committee of the ICCS¹ has propagated definitions and established standardized terminology that allowed for clarity of communication. The impact of the ICCS proposed terminology on the body of literature of pediatric LUT function has been evaluated.² The importance of pediatric urinary incontinence is supported by the finding of a 49% increase in publications from 2002–2005 to 2007–2010 (55 to 82 per year) that focus on pediatric LUT function. Additionally, there was approximately a fourfold increase in the likelihood of use of ICCS recommended terminologies after ICCS guideline publication (OR 4.19, 95% CI 3.04–5.78, $p < 0.001$). It is noteworthy that there was no significant geographical variation in adopting of ICCS terminology. Despite this significant impact of the global use of ICCS terminology, approximately 25% of studies published between 2007 and 2010 contained obsolete terminologies.²

Similar to the dynamic flux of knowledge and understanding within medicine, the terminology for pediatric bladder and bowel function is dynamic. This document on ICCS terminology for pediatric bladder and bowel function serves as a stand-alone terminology update reflecting refinement and advancement of knowledge on these systems. Adherence to the updated terminology is followed at all ICCS courses and workshops, and it is encouraged that all investigators and clinicians

who publish on this topic use the ICCS recommended terminology. To delineate manuscripts and publications that follow the ICCS guidelines regarding terminology we recommend future manuscripts include the text, "Terminology adheres to standards recommended by the ICCS except where specifically noted."

MATERIALS AND METHODS

A variety of worldwide experts from multiple disciplines who care for children with LUT dysfunction were assembled. The standardization committee consisted of active members and leaders of the ICCS who have published extensively on several facets of bladder and bowel dysfunction and all of the ICCS documents published in the last 4 years. Health care disciplines included urology, nephrology, gastroenterology, general and developmental pediatrics, physical therapy, psychology and psychiatry. The standardization committee came from North and South America, Europe, the Middle East, Africa, Australia and Asia. A critical review of the original ICCS terminology document and the current literature was performed. Additionally, input from the multidisciplinary ICCS membership was solicited.

This terminology document represents the 3rd published standardization on terminology for LUT function and enhances previous ICCS documents.^{1,3} Recognition and reference to the terminology on LUT function by the International Continence Society⁴ as well the joint terminology for female pelvic floor dysfunction by the International Urogynecological Association and International Continence Society⁵ were used to be current and inclusive of other global organizations and disciplines that also deal with continence. In addition, terms and definitions used by the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders^{6,7} were considered and the ICD-10 medical classification list from the World Health Organization⁸ was referenced.

This update is not intended to serve as a guideline for clinical treatment. There are numerous previous ICCS documents outlining treatment for specific LUT and associated comorbid conditions.^{9–16} This terminology update follows the prior ICCS terminology outline of establishing syntax to properly convey symptoms of LUT dysfunction, and to affirm terminology for investigative tools, signs, conditions and treatment parameters as they pertain to LUT function and dysfunction. The reader is referred to the prior ICCS communications for a comprehensive description of the pathophysiology. We have updated the relevance of age to bladder and bowel function, and discuss the commonality of bowel emptying issues with bladder function. We recognize that we are an organization whose primary expertise is in urinary continence and bladder function but also acknowledge a close relationship between bowel and bladder function. Thus, the importance of bowel related terms in relation to bladder function is emphasized.

The complete report is available at <http://jurology.com/>.

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