Pediatr Nephrol (2008) 23:1931–1932
DOI 10.1007/s00467-008-0865-3

EDITORIAL COMMENTARY

The new International Children's Continence Society's terminology for the paediatric lower urinary tract—why it has been set up and why we should use it

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Received: 6 March 2008 / Revised: 4 April 2008 / Accepted: 8 April 2008 / Published online: 15 May 2008

The terminology for the paediatric lower urinary tract has recently been updated by the International Children's Continence Society (ICCS). The terminology in the previous document, which was written by Dr. Nørgaard and four other experts [1] and served well for many years, has been succeeded by the new ICCS terminology [2], completed by myself and ten other experts. This document was produced after a prolonged and fairly democratic process involving all of the ICCS and experts from other organisations such as the American Academy of Pediatrics and the European Society of Paediatric Urology. Below is the explanation of why ICCS has produced this document and why we urge investigators and clinicians to use it.

There are four central reasons for updating the terminology.

(1) The lower urinary tract (LUT) in children has been a field ripe with semantic confusion. For instance, when North Americans speak about "voiding dysfunction" or "dysfunctional voiding" they usually mean *any* disturbance of bladder function, whereas Europeans have reserved this expression for dysfunction of the voiding phase only.
(2) Modern research has shown that several assumptions underlying the previous terminology are false, as can be seen from the following example: enuretic accidents in a bedwetting child who is dry during the day cannot confidently be assumed to represent "complete and urodynamically normal voidings". Studies using ambulatory cystometry have shown that the nocturnal voidings may be very urodynamically abnormal [3].
(3) The terminology with regard to adults has been changed in many respects [4]; i.e. "bladder instability" has been changed to "bladder overactivity", "bladder capacity" has been changed to "voided volume". Professionals caring for children should try to use this new terminology.
(4) The grounds for dividing patients into subgroups have been shown not to reflect factors of pathogenetic or clinical relevance. For instance, it is not meaningful to call enuresis "monosymptomatic" in the case of a bedwetter who is dry during the day- but experiences urgency symptoms or voids just two times per day.

It should thus be clear that the time has come for change of the terminology in this area of research. The reason why ICCS has undertaken this task is obvious: it is the only global, multiprofessional, organisation dealing with the lower urinary tract in children. ICCS unites paediatricians, paediatric nephrologists and urologists, child psychologists/psychiatrists, urotherapists/physiotherapists and nurses from around the world. If ICCS cannot produce a terminology with a global acceptance, then nobody can, and we all will continue to work on shaky grounds.

There is not enough space to present the terminology in toto, but the document can easily (and at no cost) be studied from the ICCS's website www.i-c-c-s.org, and some general outlines are presented below.

Incontinence means wetting at an inappropriate time and place in a child aged 5 years or older. Incontinence is subdivided into *continuous incontinence* (associated with malformations or sphincter damage) and *intermittent incontinence*. Intermittent incontinence is subdivided into *day-time incontinence* and *nocturnal incontinence*; the latter is also called *enuresis*.

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Note that bedwetting is called enuresis, or nocturnal enuresis, regardless of whether other bladder-related signs or symptoms are also present. Enuresis is further classified as *monosymptomatic* if day-time symptoms such as day-time incontinence, urgency, or decreased/increased voiding frequency are absent. Otherwise, it is designated *non-monosymptomatic* enuresis. The confusing term ”diurnal enuresis” is obsolete. Children with combined day-time incontinence and enuresis have two diagnoses. Thus, the previous differentiation between enuresis and nocturnal incontinence has been dropped.

Fewer than four or more than seven voidings per day is defined as *decreased* or *increased daytime voiding frequency*, respectively. When talking about bladder size, we should use the terms *voided volume* and *maximum voided volume*, instead of the previous terms ”bladder capacity” and ”functional bladder capacity”. These data are acquired from a bladder diary and can be compared with the *expected bladder capacity*, using the formula 30+(30×age) ml, when comparisons are needed. Otherwise, the words ”bladder capacity” or ”bladder volume” should be used only in hypothetical discussions or when actual assessments of the amount of urine *inside the bladder* has been determined, with an ultrasound or by other means of measurement.

The term *overactive bladder* is designated for the child who experiences urgency symptoms. If this child is also incontinent it is called *urge incontinence*. If, during cystometric evaluation, involuntary detrusor contractions are found, the term *detrusor overactivity* is applied. ICCS no longer uses the term ”instability” for these conditions. Likewise, the pejorative wording ”lazy bladder” is dropped. Instead, *underactive bladder* is the term used for children with decreased voiding frequency and who need to use intra-abdominal pressure to void. *Detrusor underactivity* is a cystometric term. *Voiding postponement* is the correct phrase for children who are observed to postpone micturition habitually, using various *holding manoeuvres*. Finally, *dysfunctional voiding* is a term applicable to the voiding phase only, and it is used for children who contract the external sphincter during voiding and produce staccato flow curves on uroflowmetry. The terms ”dysfunctional voiding” or ”voiding dysfunction” should not be used to label indiscriminately any lower urinary tract disturbance; in that case, the terms *bladder dysfunction* or *lower urinary tract dysfunction* may be used.

Why should we adhere to this new terminology? The reasons are fairly obvious. If we all give the same meaning to the words we use and describe and classify patient groups in a uniform way, we will lessen the confusion and make our studies comparable. If we describe pathological conditions without making unwarranted conclusions regarding underlying pathogenesis, we will generate better and less biased research.

The authors behind the new ICCS terminology are well aware that not everyone will be happy with every choice that has been made. Even I am not completely content with each detail in the document, but it is the best consensus we have at present.

In line with those of most other leading journals in the field, the editorial board of *Pediatric Nephrology* has recently decided to demand that authors submitting papers dealing with the lower urinary tract in children use the ICCS terminology.

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