Lower Urinary Tract Symptoms in Adults

Marcus Drake • Andrea Cocci Ricardo Pereira e Silva Editors

# Lower Urinary Tract Symptoms in Adults

A Clinical Approach



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This book is dedicated to all those healthcare professionals who strive in this seemingly unglamorous area of medicine yet see the interest and the challenge, and above all, what a difference can be made for patients in real need.

#### **Foreword**

Lower urinary tract symptoms affect so many people in so many ways. Their influence is profound, and often, people will struggle on without seeking help. When finally they seek medical input, it is usually because they have reached desperation level. As healthcare professionals, we need to understand how profound the experience can be for an affected patient. They disclose their most personal details, they undergo intimate tests, and they place a substantial part of their future in our hands when they consent to treatment. We must be tactful, discrete, honest and considerate. Above all, our knowledge must be broad, and communication has to be effective. This book addresses these points and provides the broad platform needed to deliver effective care in the main contexts where LUTS can be encountered in our professional practice.

Bristol, UK Marcus Drake

### **Preface**

There is something about functional urology and urogynaecology which encompasses a truly rewarding professional career for both doctors and nurses. Whether it's the intellectual challenge of understanding the concepts, the technical challenge of wide-ranging surgical skills or the compassion felt for our patients, this is an area which suits someone who has kept the desire to help people. This book was born from the interactions which so enrich this community of professionals, in particular the world-class strength of the Bristol Urological Institute, with its reputation built on the Certificate of Urodynamics, the International Consultation on Incontinence, the International Continence Society Standardisations and the ICIQ project. It is through the Certificate of Urodynamics, which has taught thousands of experts over the years, that the BUI is best known. Yet it has very powerful skills in primary clinical research and basic science and clinical training of urodynamicists and surgeons of the future. These opportunities brought the three editors together with the vision to develop a book which encapsulates the scope of LUTS and the importance for our patients. We hope that all healthcare professionals, be they doctors or nurses, consultants or residents in urology, gynaecology or any relevant medical profession, will find thought-provoking and comprehensive benefit herein.



x Preface

The community spirit of functional urology: faculty and delegates at the Bristol Certificate of Urodynamics course held in Lisbon, May 2019

Bristol, UK Florence, Italy Lisbon, Portugal Marcus Drake Andrea Cocci Ricardo Pereira e Silva

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### **About the Editors**

Marcus Drake is a specialist in the treatment of urinary incontinence (stress incontinence, post-prostatectomy incontinence and overactive bladder), neuropathic bladder and urinary tract infection. As professor of Physiological Urology, he leads a large programme of major clinical and basic science research at the University of Bristol and the Bristol Urological Institute. He trained at the Universities of Cambridge, Oxford and Newcastle. He is former chairman of the International Continence Society Standardisation Steering Committee and the International Consultations on Urological Diseases Committees for Neuro-urology (clinical), Neural Control (basic science) and Nocturia. He is a former member of the European Association of Urology Guidelines panels for Incontinence and Male LUTS.

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Ricardo Pereira e Silva is specialised in functional, female and neuro-urology at the Centro Hospitalar Universitário Lisboa Norte, where he coordinates the Urodynamics Unit and Neuro-urology Section. He is an invited lecturer in Urology at the Faculdade de Medicina de Lisboa, University of Lisbon. He is a member of the Portuguese Urology Association and Portuguese Neuro-urology and Urogynecology Association Executive Committees, International Continence Society Working Groups and European Association of Urology Patient Information Board.

### **Abbreviations**

5ARI 5 alpha reductase inhibitor

AB Alpha blocker AE Adverse event AM Antimuscarinic

AUR Acute urinary retention Botulinum neurotoxin-A BoNT-A BOO Bladder outlet obstruction **BPE** Benign prostate enlargement **BPH** Benign prostate hyperplasia **BPO** Benign prostate obstruction CUR Chronic urinary retention **CVA** Cardiovascular accident

DO(i) Detrusor overactivity (incontinence)
DSD Detrusor sphincter dyssynergia

DUA Detrusor underactivity
ED Erectile dysfunction

FFR Free flow rate

FSF First sensation of filling
FVC Frequency volume chart
HCP Healthcare professional
HRQL Health-related quality of life
IDF Increased daytime frequency
LUTS Lower urinary tract symptoms

MetS Metabolic syndrome
MSA Multiple system atrophy
MUT Midurethral tape
NDV Normal desire to void

NLUTD Neurogenic lower urinary tract dysfunction

NP Nocturnal polyuria

NPH Normal pressure hydrocephalus

OAB Overactive bladder

PDE5 Phosphodiesterase type 5 PFMT Pelvic floor muscle training

PFS Pressure flow study

xviii Abbreviations

PMC Pontine micturition centre PMD Post micturition dribble POP Pelvic organ prolapse

PRO(M) Patient reported outcome (measure)

PSA Prostate-specific antigen
PVR Post-void residual
PVS Pubovaginal sling
QoL Quality of life

RMUT Retropubic midurethral synthetic tape rUTI Recurrent urinary tract infections

SDV Strong desire to void
SNS Sacral nerve stimulator
STI Sexually transmitted infection
SUI Stress urinary incontinence

TMUT Transobturator midurethral synthetic tape

TNS Tibial nerve stimulator TOT Transobturator tape

TRP Transient receptor potential
TUIP Transurethral incision of prostate
TURP Transurethral resection of prostate

TVT Transvaginal tape
UAB Underactive bladder
UDS Urodynamics

UPP Urethral pressure profile

US Ultrasound

USI Urodynamics stress incontinence

UTI Urinary tract infection VUDS Videourodynamics