

Cambridge University Press & Assessment

978-1-009-22261-7 — The Movement Disorders Prescriber's Guide
to Parkinson's Disease

K. Ray Chaudhuri, Peter Jenner, Valentina Leta, Shelley Jones, Iro Boura
Frontmatter

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Professor K. Ray Chaudhuri is Professor of Neurology/Movement Disorders at King's College Hospital and King's College London and the Medical Director of the Parkinson Foundation International Centre of Excellence at King's College.

Professor Peter Jenner is an expert on the pharmacology of drugs and treatment strategies used at all stages of Parkinson's disease. He has been involved in the development and marketing of most of the key therapies. Peter has published over 700 papers on the cause, treatment, and cure of Parkinson's disease.

Dr Valentina Leta is a neurologist movement disorder specialist interested in infusion therapies and autonomic dysfunction in Parkinson's disease. She has worked as principal/sub-investigator of numerous trials investigating the efficacy and safety of new drugs for Parkinson's disease. Valentina has been invited as a faculty at international conferences. She is author of over 55 peer-reviewed papers and book chapters on Parkinson's disease.

Ms Shelley Jones is a consultant pharmacist in neurosciences, with over 16 years' experience working with people with Parkinson's and helping them to manage their medications optimally. Shelley has worked in the Parkinson's Centre of Excellence and been involved in publication of book chapters, papers, and conference posters.

Dr Iro Boura is a neurologist specializing in movement disorders and a PhD candidate in neurogenetics. She is currently a clinical research fellow at the Neurology Laboratory at the University of Crete and she is also affiliated with King's College London and the Parkinson's Foundation Centre of Excellence at King's College Hospital. Iro has contributed to numerous publications on Parkinson's disease, including book chapters, peer-reviewed papers, and conference posters.

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FOREWORD

Pharmacological therapy for Parkinson's disease, now regarded as a multi-system, multi-neurotransmitter dysfunction has become complex in spite of levodopa still being the gold standard of treatment across all stages of Parkinson's disease. Newer developments include advances in dopamine replacement therapies such as oral enzyme inhibitors like opicapone and safinamide whereas advanced therapies have evolved to clinical trials and licensing of subcutaneous foslevodopa/foscarbidopa preparations as well as newer delivery systems for apomorphine infusion of levodopa with entacapone. The non-dopaminergic aspect of Parkinson's disease is manifested by the evolving non-motor profile of Parkinson's disease with descriptions of non-motor subtypes, and management also, therefore, includes non-dopaminergic strategies as well as lifestyle changes. A comprehensive strategy encompassing implementation of these clinical strategies as well as attention to dopaminergic and non-dopaminergic drug use in Parkinson's disease and related side effects has been signposted in the recent publication of the Chaudhuri dashboard for Parkinson's disease. The complexity of pharmacological management of Parkinson's disease is further complicated by non-availability of many drugs in different countries around the world. In this short and concise book we aim to address these issues by providing a comprehensive guide to the different medication used for Parkinson's disease and the Parkinson syndrome. We hope healthcare professionals who care for people round the world with Parkinson's will find this book useful as a reference point.

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ABBREVIATIONS

ACE	angiotensin-converting enzyme
ACh	acetylcholine
AD	Alzheimer's disease
ALT	alanine aminotransferase
ANC	absolute neutrophil count
APTT	activated partial thromboplastin time
ARDS	acute respiratory distress syndrome
AST	aspartate transaminase
AUC	overall plasma exposure
BID	two times a day
BUN	blood urea nitrogen
CAD	coronary artery disease
CADASIL syndrome	cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy
CDC	Centers for Disease Control and Prevention
C _{max}	maximum plasma concentration
CNS	central nervous system
COMT	catechol- <i>O</i> -methyltransferase
COPD	chronic obstructive pulmonary disease
CPAP	continuous positive airway pressure
CPK	creatinine phosphokinase
CR	controlled release
CrCl	creatinine clearance
CYP450	cytochrome P450
DaTSCAN	dopamine transporter scan
DAWS	dopamine agonist withdrawal syndrome
DBS	deep brain stimulation
DDI	dopa decarboxylase inhibitor
DDS	dopamine dysregulation syndrome
DLB	dementia with Lewy bodies
DOPA	dihydroxyphenylalanine
ECG	electrocardiogram
EMA	European Medicines Agency
EMC	Electronic Medicines Compendium (UK)
ER	extended release
FDA	US Food and Drug Administration
FoG	freezing of gait
FTD	frontotemporal dementia.
GABA	gamma-aminobutyric acid
GFR	glomerular filtration rate
GI	gastrointestinal
GP	general practitioner
HD	Huntington's disease
HDL	high-density lipoprotein
HIV	human immunodeficiency virus
ICD	impulse control disorder

THE MOVEMENT DISORDERS PRESCRIBER'S GUIDE TO PARKINSON'S DISEASE

IM	intramuscular
INR	international normalized ratio
IR	immediate release
IV	intravenous
LBD	Lewy body dementia
LCIG	levodopa/carbidopa infusion gel
LDH	lactic dehydrogenase
LDL	low-density lipoprotein
LID	levodopa-induced dyskinesias
MAO-A/-B	monoamine oxidase-A/-B
MAOIs	monoamine oxidase inhibitors
MCI	mild cognitive impairment
MDS EBM Committee	Movement Disorders Society Evidence-Based Medicine Committee
MI	myocardial infarction
MMSE	mini mental state examination
MPTP	1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine
MRI	magnetic resonance imaging
mRS	modified ranking score
MSA	multiple system atrophy
NAION	non-arteritic anterior ischaemic optic neuropathy
NMDA	N-methyl-D-aspartate
NMS	neuroleptic malignant(-like) syndrome
NSAIDs	non-steroidal anti-inflammatory drugs
OCD	obsessive-compulsive disorder
ODT	orally disintegrating tablets
PDD	Parkinson's disease dementia
PEG	percutaneous endoscopic gastrostomy
P-gp	P-glycoprotein
PPI	proton pump inhibitor
PR	prolonged release
PSP	progressive supranuclear palsy
PT	prothrombin time
QID	four times a day
QoL	quality of life
RBC	red blood cell
RBD	REM sleep behaviour disorder
RCT	randomized controlled trial
REM	rapid eye movement
RLS	restless legs syndrome
SC	subcutaneous
SGOT	Serum glutamate-oxaloacetic transaminase
SIADH	syndrome of inappropriate antidiuretic hormone secretion
SNP	single nucleotide polymorphism
SNRI	serotonin and norepinephrine c inhibitor
SSRI	selective serotonin reuptake inhibitor
STN	subthalamic nucleus
TCA	tricyclic antidepressants

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TIA	transient ischaemic attack
TID	three times a day
Tmax	time to maximum serum concentration
TSH	thyroid-stimulating hormone
TTS	transdermal therapeutic systems
UK	United Kingdom
UNL	upper normal limit
UPDRS	unified Parkinson's disease rating scale
USA	United States of America
VAT	value-added tax
WBC	white blood cells
γ GT	gamma-glutamyl transferase