

Cambridge University Press

978-0-521-69716-3 - Case Studies in Neurological Rehabilitation

Tarek A.-Z. K. Gaber

Frontmatter

[More information](#)

---

## Case Studies in Neurological Rehabilitation

---

Cambridge University Press

978-0-521-69716-3 - Case Studies in Neurological Rehabilitation

Tarek A.-Z. K. Gaber

Frontmatter

[More information](#)

# Case Studies in Neurological Rehabilitation

---

Tarek A.-Z. K. Gaber



**CAMBRIDGE**  
UNIVERSITY PRESS

Cambridge University Press  
978-0-521-69716-3 - Case Studies in Neurological Rehabilitation  
Tarek A.-Z. K. Gaber  
Frontmatter  
[More information](#)

---

CAMBRIDGE UNIVERSITY PRESS

Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi

Cambridge University Press

The Edinburgh Building, Cambridge CB2 8RU, UK

Published in the United States of America by Cambridge University Press, New York

[www.cambridge.org](http://www.cambridge.org)

Information on this title: [www.cambridge.org/9780521697163](http://www.cambridge.org/9780521697163)

© T. A.-Z. K. Gaber 2008

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 2008

Printed in the United Kingdom at the University Press, Cambridge

*A catalogue record for this publication is available from the British Library*

ISBN 978-0-521-69716-3 paperback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication, and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

Every effort has been made in preparing this publication to provide accurate and up-to-date information which is in accord with accepted standards and practice at the time of publication. Although case histories are drawn from actual cases, every effort has been made to disguise the identities of the individuals involved. Nevertheless, the authors, editors and publishers can make no warranties that the information contained herein is totally free from error, not least because clinical standards are constantly changing through research and regulation. The authors, editors and publishers therefore disclaim all liability for direct or consequential damages resulting from the use of material contained in this publication. Readers are strongly advised to pay careful attention to information provided by the manufacturer of any drugs or equipment that they plan to use.

# Contents

<i>Preface</i>	<i>page ix</i>
<b>Part I Clinical rehabilitation</b>	
<hr/>	
<b>1 The rehabilitation consultation</b>	<b>3</b>
<b>2 The rehabilitation unit</b>	<b>6</b>
<b>Part II Case studies</b>	
<hr/>	
<b>3 Medical issues in brain injury rehabilitation</b>	<b>11</b>
Post-traumatic seizures	12
Agitation following herpes simplex encephalitis	15
Hypopituitarism following brain injury	17
Anxiety following head injury	20
Hydrocephalus following subarachnoid haemorrhage	23
Autonomic impairment following brain injury	26
Locked-in syndrome	29
Pharmacological management of attention impairment	32
Rehabilitation of pontine myelinolysis	34
Assessment of frontal lobe function	37
An aggressive patient	41
<b>4 Progressive neurological disorders</b>	<b>44</b>
Ataxia in multiple sclerosis	45
Psychiatric manifestations in Huntington's disease	48
The adult patient with Duchenne muscular dystrophy	51
Recurrent aspiration in a patient with Parkinson's disease	53
<b>5 Medical complications of immobility</b>	<b>57</b>
Thromboembolism	57
Osteoporosis	61
Pressure sores	64
Heterotopic ossification	67

<b>6</b>	<b>Orthotics in neurological rehabilitation</b>	<b>70</b>
	Secondary scoliosis	71
	Post polio syndrome	74
	Charcot arthropathy	78
<b>7</b>	<b>Ethical and medicolegal controversies</b>	<b>82</b>
	A wandering patient	83
	Rehabilitation of the patient from an ethnic minority	85
	Service provision for chronic fatigue syndrome	87
<b>8</b>	<b>Chronic pain</b>	<b>91</b>
	Central pain syndrome	91
	Complex regional pain syndrome	94
	Shoulder pain following stroke	97
<b>9</b>	<b>Medically unexplained disorders</b>	<b>101</b>
	Conversion syndrome	101
	Somatisation in multiple sclerosis	104
	Complementary and alternative medicine	107
<b>10</b>	<b>Spasticity management</b>	<b>110</b>
	Management of spastic equinovarus deformity	110
	Management of generalised severe spasticity	113
<b>11</b>	<b>Ventilatory support in rehabilitation</b>	<b>117</b>
	Artificial ventilation in Guillain–Barré syndrome	117
	Diaphragmatic paralysis	120
<b>12</b>	<b>Sphincteric dysfunction</b>	<b>123</b>
	Botulinum toxin for neuropathic bladder	123
	Bowel dysfunction following spinal injury	126
<b>13</b>	<b>Communication disabilities</b>	<b>130</b>
	Expressive aphasia	130
	Jargon aphasia	134
	Hypokinetic dysarthria	136
<b>14</b>	<b>Sensory disability</b>	<b>139</b>
	Cortical blindness	139
	Visual spatial neglect	142
<b>15</b>	<b>Prescriptions for independence</b>	<b>146</b>
	Exercise prescription	146
	Vocational rehabilitation	149
	Driving assessment	152

**Part III Exercises in neurological rehabilitation**

---

<b>Multiple choice questions</b>	<b>157</b>
<b>Multiple choice answers</b>	<b>174</b>
<i>Index</i>	181

## Preface

During my specialist rehabilitation medicine training in Cambridge, I tried to find a suitable text to refer to when dealing with the usual mix of cases seen in a typical neurological rehabilitation service. I found many excellent large reference textbooks and also a few pocket books with a wealth of information. However, the popular books were either neurological texts concentrating mainly on neurological disorders as a primarily diagnostic challenge or general rehabilitation texts with a generalist approach and lacking the boldness of the standard medical texts in suggesting management plans from a medical perspective.

I wanted two main things: firstly, to know the medical management of the cases I saw and secondly to have an overview of the management of other impairments usually dealt with by other members of the team, such as psychological, physical or communication disabilities.

This book is trying to address such common issues. It is not intended as a comprehensive text covering all or even most of the common scenarios seen in a neurological rehabilitation setting; however, I hope that it will cover many common but difficult issues. The book takes the approach of presenting material as case histories. The case itself does not usually present a diagnostic problem but it is intended to set the scene for a discussion of a complex neurological rehabilitation issue. My view is that rehabilitation medicine lends itself to this kind of approach, and I have tried to make the cases as non-specific as possible to enable the commentary to address more general issues, probably adopting the mantra of the UK television programme *Panorama* (BBC): *behind the news there is a story and behind the story there is an issue*. So this book's philosophy can be, *behind the case there is a story and behind the story there is an issue*.

The book concludes with 50 Multiple choice questions. I have used this approach to present important clinical scenarios that were not covered in the case commentaries. The style of the questions is not dissimilar to that used in some of the board examinations in Europe and North America. Therefore, I hope that examination candidates will find the questions useful.

This book is intended mainly for trainees and specialists in neurology and rehabilitation medicine. However, I hope that all the members of the

Cambridge University Press

978-0-521-69716-3 - Case Studies in Neurological Rehabilitation

Tarek A.-Z. K. Gaber

Frontmatter

[More information](#)

---

**x** Preface

neurological rehabilitation team will find the material useful. I have tried to present the medical material in an uncomplicated way to allow non-medically trained clinicians to follow the arguments with ease.

I have avoided long references lists after each case as I feel that at this time, and thanks to the Internet and sites such as *Pubmed* and *Google Scholar*, the most recent literature is available online for everyone; probably many ground-breaking papers will have been released by the time the book is published. I have only suggested two or three references that might complement the information the cases presented.

It is not easy to find randomised controlled trials guiding issues such as management of frontal lobe cognitive impairments or rehabilitation of patients with pontine myelinolysis. Therefore, the advice given is based on both the literature available and the experiences of the author and the contributors of cases and ideas, who all practise in the UK. I hope that the book will be valuable for clinicians dealing with neurologically impaired people everywhere around the world, as I have tried to avoid reference to any UK laws as much as possible. In a few cases, such laws are mentioned, for example the sections on mental health, I feel that the arguments can be generalised to most societies and populations.

I would like to thank my colleagues and friends Ashraf Azer, Janet Blakeley, Barry Clift, Salem Madi, Carolyn McAllister, Russell Sheldrick and Sarah Wilkinson for contributing several cases and ideas for the book. I would like also to thank Jai Kulkarni and Sue Comish for reviewing the text, my wife Solveig for her help with the manuscript preparation and my publisher Richard Marley for all his help throughout the project.