CONTENTS

No	tes on contributors	XVI
Pre	face	XXX
Ack	enowledgements	xxxiii
Lis	face xxxx xxxx xxx xxx xxx xxx xxx xxx xxx	
	·	1
1		3
	Tunis, Tunisia, Africa	4
	Sarah Larkins, Richard Murray, Tarun Sen Gupta, Simone Ross	5
	Case study 1.3: Northern Ontario School of Medicine, Canada Roger Strasser	7
	Case study 1.4: The Ateneo de Zamboanga University-School of Medicine (ADZU-SOM), Philippines Fortunato L. Cristobal	8
	Case study 1.5: Lessons from eight medical schools in South Africa – the CHEER collaboration Stephen Reid	9

2	The role of the doctor and the competencies expected from the doctor of the future Stefan Lindgren and David Gordon	18
	Case study 2.1: Easing the transition to clinical work – the role of an internship orientation programme in India Rita Sood	20
3	Why outcome-based education (OBE) is an important development in medical education Ronald M. Harden	27
	Case study 3.1: An integrated and community-oriented curriculum at the University of Geneva Faculty of Medicine, Switzerland Anne Baroffio, Nu Viet Vu and Mathieu Nendaz	28
	Case study 3.2: Implementing an outcome- or competency-based approach in practice in Indonesia Nancy Margarita Rehatta and Adrianta Surjadhana	31
	Case study 3.3: Sharing learning outcomes across health disciplines in Australia Maree O'Keefe and Amanda Henderson	32
	Case study 3.4: Towards a competency-based curriculum – the focus of undergraduate medical education curriculum renewal at the Université de Sherbrooke, Canada Marianne Xhignesse, Denis Bédard, Ann Graillon, Sharon Hatcher, Frédéric Bernier, Sylvie Houde, Daniel Gladu, Paul Chiasson and Ève-Reine Gagné	33
	Case study 3.5: Assessment of paediatric residents based on ACGME competencies in the USA J. Lindsey Lane, Jennifer Soep and M. Douglas Jones, Jr	35
	Case study 3.6: Basic science integration into the whole curriculum at the Faculty of Medicine, King Abdulaziz University, Saudi Arabia Abdulmonem Al-Hayani	39
4	How many medical students? Matching the number and types of students to a country's needs Victor Lim, Abu Bakar Suleiman and Mei Ling Young	43
	Case study 4.1: Malaysia Kok Leong Tan, Ankur Barua, Sami Abdo Radman Al-Dubai, Hematram Yadav and John Arokiasamy	47
	Case study 4.2: The Netherlands Kok Leong Tan, Ankur Barua, Sami Abdo Radman Al-Dubai, Hematram Yadav and John Arokiasamy	48

	Case study 4.3: South Africa Kok Leong Tan, Ankur Barua, Sami Abdo Radman Al-Dubai, Hematram Yadav and John Arokiasamy	49
	Case study 4.4: Saudi Arabia Mohammad Yahya Al-Shehri	50
	RT 2 e student	55
5	Should students be admitted to medical school directly from high school or as university graduates? Trudie Roberts and Tadahiko Kozu	57
	Case study 5.1: Catering for the school-leaver, Bond University, Gold Coast, Australia Michelle McLean	58
	Case study 5.2: Supporting transition to university study, Austral University, Argentina Angel Centeno	60
	Case study 5.3: A 30-year history of graduate-entry medical education programmes in Japan Tadahiko Kozu	61
	Case study 5.4: The experience of graduate entry into a medical programme – the case of College of Medicine, King Saud Ben Abdul-Aziz University for Health Sciences, Riyadh, Saudi Arabia Ali I. Al Haqwi and Ibrahim A. Al Alwan	62
	Case study 5.5: Graduate entry – the St George's experience, London, UK Peter McCrorie	63
	Case study 5.6: External influence in medical education, South Korea Ducksun Ahn	65
6	How do we select students with the necessary abilities? Jon Dowell	72
	Case study 6.1: Selecting students with the necessary abilities, Aga Khan University, Pakistan Rukhsana W. Zuberi and Laila Akbarali	73
	Case study 6.2: Assessing non-academic attributes for medical and dental school admissions using a situational judgement test, United Kingdom Fiona Patterson, Emma Rowett, Måire Kerrin and Stuart Martin	75

	Case study 6.3: The true fairy tale of the Multiple Mini-Interview, McMaster University, Canada Harold I. Reiter and Kevin W. Eva	78
	Case study 6.4: Consequences of 'selecting out' in the Netherlands Fred Tromp and Margit I. Vermeulen	82
7	The secret ingredient: the students' role and how they can be engaged with the curriculum Khalid A. Bin Abdulrahman and Catherine Kennedy	86
	Case study 7.1: Student engagement at the Faculty of Medicine in Helsinki Minna Kaila, Anna T. Heino, Kari Heinonen and Anne Pitkäranta	91
	Case study 7.2: Student involvement – from scratch, over self-sustainability, to the future, University of Maribor, Slovenia Marko Zdravkovic, Kristijan Jejcic and Ivan Krajnc	94
	Case study 7.3: Student mini-projects – celebrating World Health Day, United Arab Emirates Venkatramana Manda, Ishtiyaq A. Shaafie and Kadayam G. Gomathi	97
	Case study 7.4: Engaging students to take a global view of healthcare through the global determinants of health and development course in Trinity College Dublin Katherine T. Gavin and Orla Hanratty	98
8	Student mobility: a problem and an opportunity Athol Kent and Chivaugn Gordon	101
	Case study 8.1: Humanity in the workplace – Department of Obstetrics and Gynaecology, University of Cape Town, South Africa Veronica Mitchell, Alexandra Muller and Chivaugn Gordon	103
	Case study 8.2: The Cuban controversy – training South African medical students in Cuba Chivaugn Gordon	105
PAF The	RT 3 e curriculum	111
9	Curriculum planning in the 21st century	111
	Ronald M. Harden	113
	Case study 9.1:The University of Dundee curriculum, United Kingdom Gary Mires and Claire MacRae	114

	Case study 9.2: Training competent doctors for sub-Saharan Africa – experiences from an innovative curriculum in Mozambique Janneke Frambach and Erik Driessen	116
	Case study 9.3: Outcome-based curriculum in a new medical school in Peru Graciela Risco de Domínguez	118
10	Authentic learning in health professions education: problem-based learning, team-based learning, task-based learning, case-based learning and the blend Hossam Hamdy	128
	Case study 10.1: Implementation of computer-assisted PBL sessions to medical students at Faculty of Medicine, Suez Canal University, Egypt Somaya Hosny and Yasser El-Wazir	132
	Case study 10.2: Integrated assessment in problem-based learning promotes integrated learning Raja C. Bandaranayake	134
	Case study 10.3: Authentic learning via problem-based learning – reflections from a Malaysian medical school William K. Lim	135
	Case study 10.4: The effect of team-based learning on students' learning in a basic science course at the Universidad Peruana de Ciencias Aplicadas Medical School Denisse Champin	137
	Case study 10.5: Teaching and learning basic medical sciences in the clinical environment using a task-based learning approach at the University of Sharjah, United Arab Emirates Hossam Hamdy	138
	Case study 10.6: Improving students' decision-making skills on the surgical rotation Jonas Nordquist	139
11	Introducing early clinical experience in the curriculum Ruy Souza and Antonio Sansevero	144
	Case study 11.1:The challenges of integrating early clinical experience into the curriculum – Bond University, Australia Richard Hays	145
	Case study 11.2: Integrating early clinical experience in the curriculum – experience from a teaching hospital in United Arab Emirates Manda Venkatramana and Pankaj Lamba	146

	Case study 11.3: Early clinical exposure in graduate-entry medicine at Swansea University – Learning Opportunities in the Clinical Setting (LOCS) Paul Kneath Jones and Judy McKimm	148
	Case study 11.4: Integrating early clinical experience in the curriculum of the pre-clinical years at the Faculty of Medicine, Suez Canal University, Egypt Somaya Hosny and Mirella Youssef Tawfik	150
	Case study 11.5: Student-run clinics provide authentic patient care roles and activities for early learners, University of California, San Francisco, USA H. Carrie Chen	152
12	Benefits and challenges associated with introducing, managing, integrating and sustaining community-based medical education Regina Helena Petroni Mennin	157
	Case study 12.1: Flinders University Parallel Rural Community Curriculum Jennene Greenhill	158
	Case study 12.2: Community-oriented education, Faculty of Medicine, University of Airlangga, Indonesia Nancy Margarita Rehatta and Adrianta Surjadhana	160
	Case study 12.3: The Selectives Programme for undergraduate medical students, Nelson R. Mandela School of Medicine, University of KwaZulu-Natal, KwaZulu-Natal, South Africa Stephen Knight and Jacqueline van Wyk	163
	Case study 12.4:' and my patient died happy and cured', an experience in Brazil Ruy Souza	166
	Case study 12.5: Beyond the hospital, Brazil, South America Regina Helena Petroni Mennin	167
13	Integration of the sciences basic to medicine and the whole of the curriculum Stewart Mennin	171
	Case study 13.1: Integration of simulation-based clinical correlation pedagogy within an anatomy curriculum, Kuala Lumpur, Malaysia Nicole Shilkofski and Carmen Coombs	176
	Case study 13.2: Clinical odontologists teaching basic sciences for health, integrating basic/clinic, different methodologies and disciplines in Argentina at the National University of Rio Negro Dental School – why it works Elena I. Barragán	178

	Case study 13.3: Basic science integration into the whole curriculum at the Faculty of Medicine, King Abdulaziz University, Saudi Arabia Abdulmonem Al-Hayani	179
14	Implementing interprofessional education: what have we learned from experience? Dawn Forman and Betsy VanLeit	188
	Case study 14.1: Weaving interprofessional education into the medical curriculum at the University of Notre Dame, in Western Australia Carole Steketee and Donna B. Mak	191
	Case study 14.2: Developing community-engaged interprofessional education in the Philippines Elizabeth R. Paterno, Louricha A. Opina-Tan and Dawn Forman	193
	Case study 14.3: COBES at Moi University, Faculty of Health Sciences, Eldoret, Kenya Simeon Mining and Dawn Forman	195
	Case study 14.4: Interprofessional education in a rural clinical setting – a quick-start innovation for final-year health professional students, University of Otago, New Zealand Sue Pullon, Eileen McKinlay, Peter Gallagher, Lesley Gray, Margot Skinner and Patrick McHugh	197
	Case study 14.5: Applying interprofessional education in primary care facilities for fourth-year students at the Faculty of Medicine, Suez Canal University, Egypt Somaya Hosny and Mohamed H. Shehata	198
	Case study 14.6: Interprofessional education to prepare health professionals for rural practice in underserved New Mexico communities, USA Betsy VanLeit	199
	RT 4 aching and learning	205
15	How can learning be made more effective in medical education? Stewart Mennin	207
	Case study 15.1: The Primary Care Curriculum at the University of New Mexico School of Medicine S. Scott Obenshain	211
	Case study 15.2: Jack's dead and the boys have gone Sweeney (2006: 3-4)	213

	Case study 15.3: Addressing the educational needs for the 21st century – the Duke-National University of Singapore experience Sandy Cook and Robert Kamei	215
16	New technologies can contribute to a successful educational programme John Sandars	221
	Case study 16.1: Digital story telling (DST) to enhance reflection on service learning, University of Pretoria, South Africa Jannie Hugo	222
	Case study 16.2: Using blogs to engage students and teaching staff in a medical school, University of Dundee, UK Natalie Lafferty	223
	Case study 16.3: Two models of decentralised medical education, United States Ruth Ballweg, David Talford and Jared Papa	225
	Case study 16.4: Using communication technology for surgical skills teaching in Uganda – a pilot study among intern doctors at Mulago National Referral and Teaching Hospital Josaphat Byamugisha, Yosam Nsubuga, Mark Muyingo, Amy Autry, Sharon Knight, Felicia Lester, Gerald Dubowitz and Abner Korn	227
	Case study 16.5: An online hyperlinked radiology case repository to facilitate postgraduate training in diagnostic radiology, National University of Singapore Goh Poh Sun	228
	Case study 16.6: Mobile devices for learning and assessment in clinical settings, University of Leeds, UK Gareth Frith	230
	RT 5	
Ass	sessment	235
17	How to implement a meaningful assessment programme Lambert Schuwirth	237
	Case study 17.1: Assessment in family medicine rotation, College of Medicine, King Saud University, Saudi Arabia Eiad AlFaris, Hussain Saad Amin and Naghma Naeem	238
	Case study 17.2: Implementing a meaningful assessment programme, Medical University of Vienna, Austria Michael Schmidts and Michaela Wagner-Menghin	239

20	International and transnational models for delivering medical education: the future for medical education John Hamilton and Shajahan Yasin	281
	RT 6 e medical school	279
	Case study 19.5: Introducing workplace-based assessment in a reformed, undergraduate curriculum at King Saud University, Saudi Arabia Hamza Abdulghani and Gominda Ponnamperuma	274
	Case study 19.4: How to assess trainees' clinical competence performing endoscopies in a postgraduate residency programme at the Pontificia Universidad Católica de Chile Arnoldo Riquelme	271
	Case study 19.3: Organising and running a simulation training workshop for core surgical trainees in the United Kingdom <i>T. James Royle and Steve B. Pandey</i>	270
	Case study 19.2: Role of feedback for inference clarification during a mini-CEX encounter at the Instituto Cardiovascular de Buenos Aires, Argentina Alberto Alves de Lima	268
	Case study 19.1: The use of workplace-based assessment in the UK Foundation Programme Steve Capey and Richard Hays	265
19	More attention is now paid to assessment of clinical competence and on-the-job assessment Vanessa C. Burch	263
	Case study 18.1: Computer-based testing – a paradigm shift in student assessment in India Bipin Batra	259
18	Written and computer-based approaches are valuable tools to assess a learner's competence Reg Dennick	247
	Case study 17.3: Implementing a meaningful assessment programme, St George's University of London, UK Jonathan Round	242

	Case study 20.1: Establishment of a branch campus medical school – Newcastle University Medicine Malaysia Philip Bradley	283
	Case study 20.2: Establishment of Monash University's Jeffrey Cheah School of Medicine and Health Sciences, Malaysia Shajahan Yasin	284
	Case study 20.3: The International Medical University, Kuala Lumpur, Malaysia Victor Lim	289
	Case study 20.4: Transnational medical education between Australia and the United States of America David Wilkinson	290
21	Creating and sustaining medical schools for the 21st century David Wilkinson	294
	Case study 21.1: Mandatory versus curricular objective. Do we mean it when we say it? Southern Illinois University School of Medicine Debra L. Klamen	295
	Case study 21.2: A tale of two medical schools in Australia Ian Wilson	297
	Case study 21.3: Developing a distributed model of medical education to help meet the healthcare needs of the population of British Columbia, Canada David Snadden	299
22	Recognising leadership and management within the medical school Khalid A. Bin Abdulrahman and Trevor Gibbs	304
	Case study 22.1: Recognising leadership, management and other responsibilities within the medical school – an example from Pakistan Rukhsana W. Zuberi and Farhat Abbas	308
	Case study 22.2: Starting a new medical school in Southern Africa – University of Namibia Medical School Jonas Nordquist	311
	Case study 22.3: Steps towards establishing a new medical college in Saudi Arabia – an insight into medical education in the Kingdom Khalid A. Bin Abdulrahman and Farid Saleh	313
23	How teaching expertise and scholarship can be developed, recognised and rewarded Deborah Simpson, Maryellen E. Gusic and M. Brownell Anderson	318

	Case study 23.1: Dr Lasz Lo – clinician teacher (teaching activity category) Deborah Simpson, Hina Mahboob, Richard J. Battiola and John R. Brill	321
	Case study 23.2: Supporting the continuum of faculty development through a department for educational development, Aga Khan University, Pakistan Rukhsana W. Zuberi, Syeda K. Ali, Sheilla K. Pinjani, Shazia Sadaf and Naveed Yousuf	323
	Case study 23.3: Institution(alising) education in a healthcare system, Singapore Sandy Cook, Robert Kamei and Koo Wen Hsin	325
	Case study 23.4: Aligning academic promotion with medical school missions and faculty roles, Eastern Virginia Medical School, United States Elza Mylona, Aaron I. Vinik and Christine C. Matson	325
24	Accreditation and programme evaluation: ensuring the quality of educational programmes Dan Hunt, Ducksun Ahn, Barbara Barzansky and Donna Waechter	330
	Case study 24.1: Accreditation standards as a tool to drive organisational culture change, The University of California, Davis, United States Mark Servis and Claire Pomeroy	331
	Case study 24.2: Using medical education accreditation standards as the foundation for creating Canada's first new medical school in 30 years, Northern Ontario School of Medicine, Canada Joel H. Lanphear and Marie Matte	334
	Case study 24.3: Overhauling the accreditation standards of the Taiwan Medical Accreditation Council Chi-Wan Lai, Keh-Min Liu, Yan-Di Chang and Chyi-Her Lin	336
	Case study 24.4: Developing an accreditation system from South Korea Ducksun Ahn	338
	Case study 24.5: Establishing a quality assurance system of medical education in Indonesia Puti Marzoeki	340
_	RT 7 e future of medical education	353
25	Looking toward the future of medical education: fit for purpose Stewart Mennin	355
Ind	lex	361