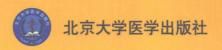


FIRSTAID USMLE STEP 1 病例分析

第2版

- 400 high-yield cases prepare you to answer questions on the USMLE Step 1 •
- Active-recall questions and answers reinforce important concepts
 - Organized the same as First Aid for the USMLE Step 1
 for parallel study
 - Completely updated based on student feedback

TAO LE • VINITA TAKIAR



FIRST AID

USMLE STEP 1

病例分析

第2版

TAO LE, MD, MHS

Assistant Clinical Professor of Medicine Chief, Section of Allergy and Immunolo Department of Medicine University of Louisville

VINITA TAKIAR, MS, MPhil

Medical Scientist Training Program Yale University School of Medicine Class of 2010



北京大学医学出版社

图书在版编目 (CIP) 数据

USMLE Step 1 病例分析=Cases for the USMLE

Step 1 / (美) 李 (Lee, T.), (美) 塔克 (Takiar, V.) 编写.

一影印本 一北京:北京大学医学出版社,2010.5

(美国医师执照考试丛书)

ISBN 978-7-81116-933-1

I.①U··· Ⅱ.①李··· ②塔··· Ⅲ.①病例一分析一医师一资格考核一美国一自学参考资料一英文 Ⅳ.①R4

中国版本图书馆 CIP 数据核字 (2010) 第 079172 号

北京市版权局著作权合同登记号: 01-2010-2395

TAO LE, VINITA TAKIAR

First AidTM Cases for the USMLE Step, Second Edition

ISBN 978-007-126964-3

Copyright © 2010 by TAO LE.

All Rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including without limitation photocopying, recording, taping, or any database, information or retrieval system, without the prior written permission of the publisher.

This authorized English reprint edition is jointly published by McGraw-Hill Education (Asia) and Peking University Medical Press. This edition is authorized for sale in the People's Republic of China only, excluding Hong Kong SAR, Macao SAR and Taiwan.

Copyright © 2010 by McGraw-Hill Education (Asia), a division of the Singapore Branch of The McGraw-Hill Companies, Inc.

版权所有。未经出版人事先书面许可,对本出版物的任何部分不得以任何方式或途径复制或传播,包括但不限于复印、录制、录音,或通过任何数据库、停息或可检索的系统。

本授权英文影印版由麦格劳-希尔(亚洲)。教育出版公司和北京大学医学出版社合作出版。此版本经授权仅限在中华人民共和国境内(不包括香港特别行政区、澳门特别行政区和台湾)销售。

版权© 2010 由麦格劳-希尔(亚洲)教育出版公司所有。

本书封面贴有 McGraw-Hill 公司防伪标签,无标签者不得销售。

USMLE Step 1 病例分析(第 2 版)

编 写:TAO LE,VINITA TAKIAR

出版发行: 北京大学医学出版社(电话: 010-82802230)

地 址:(100191) 北京市海淀区学院路 38 号 北京大学医学部院内

呦 址: http://www.pumpress.com.cn

E - mail: booksale@bjmu.edu.cn

印 刷:北京画中画印刷有限公司

经 销:新华书店

责任编辑: 冯智勇 责任校对: 齐 欣 责任印制: 张京生

开 本: 889mm×1194mm 1/16 印张: 33 字数: 970 千字

版 次: 2010年6月第1版 2010年6月第1次印刷

书 号: ISBN 978-7-81116-933-1

定 价: 119.00元

版权所有, 违者必究

(凡属质量问题请与本社发行部联系退换)

出版说明

美国医师执照考试(United States Medical Licensing Examination, USMLE)是针对全世界各国医学院的学生或毕业生,欲到美国从医的执照考试,考试全部为选择题,采用计算机考试。考试分为:

Step 1 (第一阶段): 考察医学基础学科知识,包括解剖学 Anatomy,生理学 Physiology,生物化学 Biochemistry,微生物学 Microbiology,病理学 Pathology,药理学 Pharmacology,遗传学 Genetics,营养学 Nutrition,神经科学 Neuroscience 等。

Step 2 (第二阶段):

- (1) 临床医学知识 (Clinical Knowledge, CK): 包括内科学 Medicine, 外科学 Surgery, 妇产科学 Obstetrics and Gynecology, 几科学 Pediatrics, 神经病学 Neurology, 家庭医学 Family Medicine, 急诊医学 Emergency Medicine, 预防医学 Preventive Medicine等。
- (2) 临床技能 (Clinical Skill, CS): 要通过 Step 1、Step 2 及 TOEFL 之后才能报考,主要是考察考生的临床实践操作知识。
- Step 3 (第三阶段):测试考生的实际工作能力。内容包括采集病史、体格检查、诊断、治疗措施,以及医疗法规等。

USMLE 在北京、上海和广州设有考点,在中国大陆可参加 USMLE Step 1 和 USMLE Step 2 CK 的考试。考试介绍及报名情况可参见 http://www.ecfmg.com

为了帮助有志于参加 USMLE 的考生更好地复习,北京大学医学出版社全面引进了 McGraw Hill 公司的两个著名 USMLE 复习品牌丛书: PreTest 系列、FIRST AID 系列。这两套丛书经过多次再版,受到世界各地考生的欢迎。本次引进的均为其最新版本。

当前,我国很多医学院校在进行英文授课、考试的改革,本书对国内从事英语授课、考试的教师和学生也有重要的参考价值。为广大的医学生和医务工作者比较中美医学教育和自己掌握的知识提供参考。同时,该书也是学习专业英语的好教材。

北京大学医学出版社

NOTICE

Medicine is an ever-changing science. As new research and clinical experience broaden our knowledge, changes in treatment and drug therapy are required. The authors and the publisher of this work have checked with sources believed to be reliable in their efforts to provide information that is complete and generally in accord with the standards accepted at the time of publication. However, in view of the possibility of human error or changes in medical sciences, neither the authors nor the publisher nor any other party who has been involved in the preparation or publication of this work warrants that the information contained herein is in every respect accurate or complete, and they disclaim all responsibility for any errors or omissions or for the results obtained from use of the information contained in this work. Readers are encouraged to confirm the information contained herein with other sources. For example and in particular, readers are advised to check the product information sheet included in the package of each drug they plan to administer to be certain that the information contained in this work is accurate and that changes have not been made in the recommended dose or in the contraindications for administration. This recommendation is of particular importance in connection with new or infrequently used drugs.

DEDICATION

To the contributors to this and future editions, who took time to share their knowledge, insight, and humor for the benefit of all those who yearn to pass their boards.

and

To our families, friends, and loved ones, who encouraged and assisted us in the task of assembling this guide.

CONTRIBUTING AUTHORS

Rakesh Razdan Ahuja

Yale University School of Medicine Class of 2010

Mamie Air

Yale University School of Medicine Class of 2009

Justin Brent Cohen

Yale University School of Medicine Class of 2009

Jennifer Giltnane, MD, PhD

Resident Department of Pathology Vanderbilt Hospital

Kelvin Lau, MD

Resident Department of Pediatrics Children's Hospital of Philadelphia

Leah McNally

Yale University School of Medicine Class of 2009

Jennifer Pluznick, PhD

Postdoctoral Fellow Department of Cellular and Molecular Physiology Yale University School of Medicine

Christina L. Shenvi, PhD

Yale University School of Medicine Class of 2009

Paul Charles Walker, MD

Resident
Department of Otolaryngology
University of Iowa

SENIOR REVIEWERS

Sumit Bhargava, MD

Assistant Professor of Pediatrics Section of Respiratory Medicine Department of Pediatrics Yale University School of Medicine

Sheldon Campbell, MD, PhD

Associate Professor Department of Laboratory Medicine Yale University School of Medicine

Joseph Craft, MD

Professor of Internal Medicine and Rheumatology Chief of Rheumatology and Immunobiology Yale University School of Medicine

John P. Geibel, MD, DSc

Vice Chairman
Department of Surgery
Yale University School of Medicine

Stephanie Halene, MD

Associate Research Scientist Department of Internal Medicine Yale University School of Medicine

Sandra Iragorri, MD

Assistant Clinical Professor of Pediatrics Nephrology Department of Pediatrics Yale University School of Medicine

Nisha Manickam, DO

Clinical Fellow Internal Medicine Infectious Disease Yale University School of Medicine

Geoffey Miller, MD

Professor of Pediatrics and Neurology Department of Pediatrics Yale University School of Medicine

Jennifer Myer, MD

Assistant Clinical Professor Department of Psychiatry Yale University School of Medicine

Errol Norwitz, MD, PhD

Associate Professor Department of Obstetrics and Gynecology Yale University School of Medicine

Edward Perry, MD

Assistant Professor Department of Psychiatry Yale University School of Medicine

George A. Porter, MD, PhD

Assistant Professor Department of Pediatrics Yale University School of Medicine

Sanziana Roman, MD

Surgeon, Assistant Professor Department of Surgery Yale University School of Medicine

Mark Solomon, MD

Professor Molecular Biophysics and Biochemistry Yale University School of Medicine

Louis Trevisan, MD

Assistant Clinical Professor Department of Psychiatry Yale University School of Medicine

PREFACE

With First Aid Cases for the USMLE Step 1, 2nd edition, we continue our commitment to providing students with the most useful and up-to-date preparation guides for the USMLE Step 1. This edition represents an outstanding effort by a talented group of authors and includes the following:

- Commonly asked question stems on the USMLE Step 1 integrated into a single USMLE-style case.
- Concise yet complete explanations.
- Two-column format for easy self-quizzing.
- High-yield images, diagrams, and tables to complement the questions and answers.
- Organized as a perfect supplement to First Aid for the USMLE Step 1.

We invite you to share your thoughts and ideas to help us improve First Aid Cases for the USMLE Step 1. See "How to Contribute," on p. xxiii.

Louisville

Tao Le

New Haven

Vinita Takiar

ACKNOWLEDGMENTS

This has been a collaborative project from the start. We gratefully acknowledge the thoughtful comments and advice of the residents, international medical graduates, and faculty who have supported the authors in the development of First Aid Cases for the USMLE Step 1, 2nd edition.

For support and encouragement throughout the process, we are grateful to Thao Pham and Selina Bush. Thanks to our publisher, McGraw-Hill, for the valuable assistance of their staff. For enthusiasm, support, and commitment to this challenging project, thanks to our editor, Catherine A. Johnson. For outstanding editorial work, we thank Emma D. Underdown, Isabel Nogueira, and Michael Shelton. A special thanks to Rainbow Graphics for remarkable production work.

Louisville

Tao Le

New Haven

Vinita Takiar

HOW TO CONTRIBUTE

To continue to produce a high-yield review source for the USMLE Step 1 exam, we invite you to submit any suggestions or corrections. We also offer **paid internships** in medical education and publishing ranging from three months to one year (see below for details). Please send us your suggestions for the following:

- High-yield USMLE Step 1 cases.
- New facts, mnemonics, diagrams, and illustrations.
- Low-yield cases to remove.

For each entry incorporated into the next edition, you will receive a \$10 gift certificate, as well as personal acknowledgment in the next edition. Diagrams, tables, partial entries, updates, corrections, and study hints are also appreciated, and significant contributions will be compensated at the discretion of the authors. Also let us know about material in this edition that you feel is low yield and should be deleted.

The preferred way to submit entries, suggestions, or corrections is via our blog:

www.firstaidteam.com

Otherwise, please send entries, neatly written or typed or on disk (Microsoft Word), to:

First Aid Team 914 North Dixie Avenue, Suite 100 Elizabethtown, KY 42701 Attention: Step 1 Casebook

All entries become property of the authors and are subject to editing and reviewing. Please verify all data and spellings carefully. In the event that similar or duplicate entries are received, only the first entry received will be used. Include a reference to a standard textbook to facilitate verification of the fact. Please follow the style, punctuation, and format of this edition if possible.

INTERNSHIP OPPORTUNITIES

The author team is pleased to offer part-time and full-time paid internships in medical education and publishing to motivated medical students and physicians. Internships may range from three months (e.g., a summer) up to a full year. Participants will have an opportunity to author, edit, and earn publication credit on a wide variety of projects, including the popular *First Aid* series. Writing/editing experience, familiarity with Microsoft Word, Internet access, and a passion for education are desired. Go to our blog www.firstaidteam.com to apply for an internship. A sample of your work or a proposal of a specific project is helpful.

CONTENTS

Contributing Authors	xv
Senior Reviewers	xvii
Preface	xix
Acknowledgments	xxi
How to Contribute	xxiii

SECTION 1 GENERAL PRINCIPLES	
Behavioral Science	3
Case 1: Alcohol Withdrawal	4
Case 2: Benzodiazepine Overdose	5
Case 3: Anorexia Nervosa	6
Case 4: Bias	8
Case 5: Confidentiality and Its Exceptions	9
Case 6: Core Ethical Principles	10
Case 7: Delirium	11
Case 8: Drug Intoxication	12
Case 9: Evaluation of Diagnostic Tests	13
Case 10: Infant Development	14
Case 11: Malpractice	15
Case 12: Operant Conditioning	16
Case 13: Opioid Withdrawal	17
Case 14: Sleep Physiology	18
Case 15: Sleep Stages	19
Blochemistry	21
Case 1: Alkaptonuria	22
Case 2: Cyanide Poisoning	23
Case 3: DiGeorge Syndrome	24
Case 4: Familial Hypercholesterolemia	25
Case 5: Down Syndrome	26
Case 6: Ehlers-Danlos Syndrome	28
Case 7: Fragile X Syndrome	30
Case 8: Fructose Intolerance	31
Case 9: Homocystinuria	32
Case 10: Hurler's Syndrome	33
Case 11: I-cell Disease	34

	Case 12: Kartagener's Syndrome	35
	Case 13: Lesch-Nyhan Syndrome	36
	Case 14: McArdle's Disease	37
	Case 15: Phenylketonuria	38
	Case 16: Pyruvate Dehydrogenase Deficiency	39
	Case 17: Tay-Sachs Disease	40
	Case 18: Vitamin B ₁ (Thiamine) Deficiency	41
	Case 19: von Gierke's Disease	42
M	icrobiology and immunology	43
	Case 1: Acanthamoeba Infection	45
	Case 2: Actinomyces vs Nocardia	46
	Case 3: Anthrax	47
	Case 4: Ascariasis	48
	Case 5: Aspergillosis	49
	Case 6: Botulism	50
	Case 7: Candidiasis	51
	Case 8: Chagas' Disease	52
	Case 9: Cholera	53
	Case 10: Chronic Granulomatous Disease	54
	Case 11: Clostridium difficile Infection	55
	Case 12: Congenital Syphilis	56
	Case 13: Creutzfeldt-Jakob Disease	57
	Case 14: Cryptococcal Meningitis	58
	Case 15: Cysticercosis	59
	Case 16: Cytomegalovirus Infection	60
	Case 17: Dengue Fever	62
	Case 18: Diphtheria	63
	Case 19: Elephantiasis	64
	Case 20: Giardiasis	65
	Case 21: Gonorrhea with Septic Arthritis	66
	Case 22: Group B Streptococcus in Infant	68
	Case 23: Hand, Foot, and Mouth Disease	69
	Case 24: Herpes Simplex Virus Type 2	70
	Case 25: Hookworm	72
	Case 26: Influenza	73
	Case 27: Isolated IgA deficiency	74
	Case 28: Kaposi's Sarcoma	76
	Case 29: Leishmaniasis	77
	Case 30: Legionella Infection	78
	Case 31: Leprosy	80
	Case 32: Listeria Meningitis	82
	Case 33: Liver Cysts/Echinococcus	83

Case 34: Malaria	84
Case 35: Lyme Disease	86
Case 36: Measles	87
Case 37: Mononucleosis	88
Case 38: Mucormycosis	89
Case 39: Mumps	90
Case 40: Neisseria meningitidis Meningitis	91
Case 41: Onchocerciasis	92
Case 42: Osteomyelitis	93
Case 43: Pinworm	94
Case 44: Pneumocystis jiroveci Pneumonia	95
Case 45: Poison Ivy	96
Case 46: Polio	97
Case 47: Pseudomonas aeruginosa Infection	98
Case 48: Rabies	99
Case 49: Ringworm	100
Case 50: Rocky Mountain Spotted Fever	101
Case 51: Rotavirus Infection	102
Case 52: Schistosomiasis	103
Case 53: Shigella and Hemolytic-Uremic Syndrome	104
Case 54: Shingles	105
Case 55: Strongyloidiasis	107
Case 56: Systemic Mycoses	108
Case 57: Toxic Shock Syndrome	109
Case 58: Toxoplasmosis	111
Case 59: Transplant Reaction	112
Case 60: Yellow Fever	113
Case 61: Tuberculosis	114
Pharmacology	117
Case 1: Acetaminophen Overdose	118
Case 2: Agranulocytosis Secondary to Drug Toxicity	119
Case 3: Barbiturate vs. Benzodiazepine	120
Case 4: Benzodiazepine Overdose	121
Case 5: β-Adrenergic Second Messenger Systems	122
Case 6: Cholinergic Drugs	123
Case 7: Drug Development	124
Case 8: Drug-Induced Lupus	126
Case 9: Ethylene Glycol Poisoning	128
Case 10: Lead Poisoning	129
Case 11: Pharmacodynamics	130
Case 12: Neuromuscular Blocking Agents	132
Case 13: Pharmacokinetics	133

SECTION II ORGAN SYSTEMS	
Cardiovascular	137
Case 1: Abdominal Aortic Aneurysm	138
Case 2: Aortic Stenosis	139
Case 3: Atherosclerosis	140
Case 4: Atrial Fibrillation	141
Case 5: Atrial Myxoma	142
Case 6: Atrioventricular Block	144
Case 7: Coarctation of the Aorta	145
Case 8: Congenital Rubella	146
Case 9: Coronary Artery Disease	148
Case 10: Congestive Heart Failure	150
Case 11: Deep Venous Thrombosis	151
Case 12: Dilated Cardiomyopathy	152
Case 13: Endocarditis	154
Case 14: Hypertrophic Cardiomyopathy	156
Case 15: Hypertension	158
Case 16: Kawasaki's Disease	159
Case 17: Mitral Valve Prolapse	160
Case 18: "Monday Disease"	161
Case 19: Myocardial Infarction	162
Case 20: Pericarditis	163
Case 21: Obstruction of Superior Mesenteric Artery/Inferior Mesenteric Artery	164
Case 22: Patent Ductus Arteriosus	166
Case 23: Polyarteritis Nodosa	168
Case 24: Rheumatic Heart Disease	169
Case 25: Temporal Arteritis	170
Case 26: Tetralogy of Fallot	171
Case 27: Truncus Arteriosus	172
Case 28: Wolff-Parkinson-White Syndrome	174
Case 29: Wegener's Granulomatosis	176
Endocrine	177
Case 1: 11β-Hydroxylase Deficiency	178
Case 2: 21β-Hydroxylase Deficiency	180
Case 3: Addison's Disease	181
Case 4: Conn's Syndrome	183
Case 5: Cushing's Syndrome	184
Case 6: Diabetes Mellitus	. 185
Case 7: Gigantism	186
Case 8: Gout	188
Case 9: Graves' Disease	189
Case 10: Hyperparathyroidism	190
Case 11: Hypothyroidism	191

	Case 12: Metabolic Syndrome	192
	Case 13: Multiple Endocrine Neoplasia Type IIA	194
	Case 14: Non-Insulin-Dependent (Type 2) Diabetes	196
	Case 15: Pheochromocytoma	198
	Case 16: Pseudohypoparathyroidism	199
	Case 17: Sheehan's Syndrome	200
	Case 18: Thyroglosssal Duct Cyst	201
	Case 19: Thyroid Cancer	202
	Case 20: Thyroidectomy	203
	Case 21: Toxic Multinodular Goiter	204
Ge	strointestinal	207
	Case 1: Achalasia	208
	Case 2: Acute Pancreatitis	209
	Case 3: Alcoholic Cirrhosis	210
	Case 4: Appendicitis	212
	Case 5: Barrett's Esophagus	213
	Case 6: Choledocholithiasis	214
	Case 7: Crigler-Najjar Syndrome	216
	Case 8: Diverticulitis	218
	Case 9: Cholangitis	220
	Case 10: Esophageal Atresia/Fistula	221
	Case 11: Gastrinoma	222
	Case 12: Hemochromatosis	223
	Case 13: Hepatitis B Virus Infection	224
	Case 14: Hepatitis C Virus Infection	225
	Case 15: Hepatocellular Carcinoma	226
	Case 16: Hyperbilirubinemia	227
	Case 17: Inflammatory Bowel Disease	228
	Case 18: Lower Gastrointestinal Bleeding	229
	Case 19: Meckel's Diverticulum	230
	Case 20: Painless Jaundice	232
	Case 21: Pellagra	233
	Case 22: Primary Biliary Cirrhosis	234
	Case 23: Pseudomembranous Colitis/Clostridium difficile Infection	236
	Case 24: Pyloric Stenosis	237
	Case 25: Reye's Syndrome	238
	Case 26: Short Bowel Syndrome/Malabsorption	239
	Case 27: Stomach Cancer	240
	Case 28: Upper Gastrointestinal Tract Bleeding	241
	Case 29: Vitamin B ₁₂ Deficiency	242
	Case 30: Zollinger-Ellison Syndrome	244
H	lematology and Oncology	245
	Case 1: Acute Intermittent Porphyria	247

Case 2: Acute Lymphoblastic Leukemia	248
Case 3: Acute Myelogenous Leukemia	250
Case 4: Aplastic Anemia	251
Case 5: β-Thalassemia	252
Case 6: Autoimmune Hemolytic Anemia	254
Case 7: Breast Cancer	255
Case 8: Carcinoid Syndrome	256
Case 9: Burkitt's Lymphoma	258
Case 10: Chronic Myelogenous Leukemia	259
Case 11: Colorectal Cancer	260
Case 12: Disseminated Intravascular Coagulation	261
Case 13: Gastric Cancer	262
Case 14: Glioblastoma Multiforme	263
Case 15: Glucose-6-Phospate Dehydrogenase Deficiency	264
Case 16: Head and Neck Cancer	265
Case 17: Hemochromatosis	266
Case 18: Hodgkin's Lymphoma	268
Case 19: Hemophilia	270
Case 20: Teratoma	271
Case 21: Idiopathic Thrombocytopenic Purpura	272
Case 22: Lead Poisoning	274
Case 23: Lung Cancer (Pancoast's Syndrome)	275
Case 24: Macrocytic Anemia	276
Case 25: Microcytic Anemia	277
Case 26: Neuroblastoma	278
Case 27: Multiple Myeloma	280
Case 28: Oligodendroglioma	281
Case 29: Ovarian Cancer (Sertoli-Leydig Tumor)	282
Case 30: Pancreatic Cancer	283
Case 31: Polycythemia	284
Case 32: Retinoblastoma	285
Case 33: Sickle Cell Anemia	286
Case 34: Small Cell Lung Carcinoma	288
Case 35: Spherocytosis	289
Case 36: Splenic Injury	290
Case 37: Testicular Cancer	291
Case 38: Thrombotic Thrombocytopenic Purpura/Hemolytic-Uremic Syndrome	292
Case 39: von Willebrand's Disease	293
Musculoskeletal	295
Case 1: Costochondritis	296
Case 2: Cutaneous Squamous Cell Carcinoma	297
Case 3: Gunshot Wound to Left Flank	298
Case 4: Ewing's Sarcoma	300
Case 5: Hip Fracture	30

	Case 6: Inguinal Hernia	302
	Case 7: Knee Pain	303
	Case 8: Melanoma	304
	Case 9: Muscular Dystrophy	305
	Case 10: Osteoarthritis	306
	Case 11: Neurofibromatosis	308
	Case 12: Osteogenesis Imperfecta	309
	Case 13: Rheumatoid Arthritis	310
	Case 14: Osteoporosis	312
	Case 15: Subclavian Stab Wound	313
	Case 16: Rotator Cuff Tear	314
	Case 17: Systemic Lupus Erythematosus	316
	Case 18: Systemic Sclerosis (Scleroderma)	317
Νe	eurology	319
	Case 1: Alzheimer's Disease	321
	Case 2: Brown-Séquard Syndrome	322
	Case 3: Amyotrophic Lateral Sclerosis	324
	Case 4: Corneal Abrasion/Eye Injury	325
	Case 5: Central Cord Syndrome	326
	Case 6: Craniopharyngioma	328
	Case 7: Damage to Recurrent Laryngeal Nerve	329
	Case 8: Femoral Neuropathy	330
	Case 9: Glaucoma	331
	Case 10: Glioblastoma Multiforme	332
	Case 11: Guillaín-Barré Syndrome	334
	Case 12: Horner's Syndrome	336
	Case 13: Hydrocephalus	338
	Case 14: Huntington's Disease	340
	Case 15: Macular Degeneration	341
	Case 16: Homonymous Hemianopia	342
	Case 17: Medulloblastoma	344
	Case 18: Meningioma	345 346
	Case 19: Middle Ear Infection/Ear Anatomy	348
	Case 20: Metastatic Brain Tumor	349
	Case 21: Migraine	350
	Case 22: Multiple Sclerosis	352
	Case 23: Neurofibromatosis Type 1	354
	Case 24: Myasthenia Gravis	355
	Case 25: Parkinson's Disease	356
	Case 26: Neurofibromatosis Type 2	358
	Case 27: Pituitary Adenoma	359
	Case 28: Seizures/Status Epilepticus	360
	Case 29: Stroke	362
	Case 30: Spinal Cord Compression	502