

CASE STUDIES IN NURSING

SECOND EDITION

THE FAMILY NURSE  
PRACTITIONER  
CLINICAL CASE STUDIES

EDITED BY LESLIE NEAL-BOYLAN



WILEY Blackwell



# **The Family Nurse Practitioner**



# **The Family Nurse Practitioner**

## Clinical Case Studies

SECOND EDITION

Edited by

**Leslie Neal-Boylan**, PhD, APRN, CRRN, FAAN, FARN

Mansfield Kaseman Health Clinic  
Rockville, MD, USA

**WILEY** Blackwell

This edition first published 2021  
© 2021 John Wiley & Sons Ltd

*Edition History*

John Wiley & Sons, Inc. (1e, 2011)

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, except as permitted by law. Advice on how to obtain permission to reuse material from this title is available at <http://www.wiley.com/go/permissions>.

The right of Leslie Neal-Boylan to be identified as the author of the editorial material in this work has been asserted in accordance with law.

*Registered Office(s)*

John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, USA

John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

*Editorial Office*

9600 Garsington Road, Oxford, OX4 2DQ, UK

For details of our global editorial offices, customer services, and more information about Wiley products visit us at [www.wiley.com](http://www.wiley.com).

Wiley also publishes its books in a variety of electronic formats and by print-on-demand. Some content that appears in standard print versions of this book may not be available in other formats.

*Limit of Liability/Disclaimer of Warranty*

The contents of this work are intended to further general scientific research, understanding, and discussion only and are not intended and should not be relied upon as recommending or promoting scientific method, diagnosis, or treatment by physicians for any particular patient. In view of ongoing research, equipment modifications, changes in governmental regulations, and the constant flow of information relating to the use of medicines, equipment, and devices, the reader is urged to review and evaluate the information provided in the package insert or instructions for each medicine, equipment, or device for, among other things, any changes in the instructions or indication of usage and for added warnings and precautions. While the publisher and authors have used their best efforts in preparing this work, they make no representations or warranties with respect to the accuracy or completeness of the contents of this work and specifically disclaim all warranties, including without limitation any implied warranties of merchantability or fitness for a particular purpose. No warranty may be created or extended by sales representatives, written sales materials or promotional statements for this work. The fact that an organization, website, or product is referred to in this work as a citation and/or potential source of further information does not mean that the publisher and authors endorse the information or services the organization, website, or product may provide or recommendations it may make. This work is sold with the understanding that the publisher is not engaged in rendering professional services. The advice and strategies contained herein may not be suitable for your situation. You should consult with a specialist where appropriate. Further, readers should be aware that websites listed in this work may have changed or disappeared between when this work was written and when it is read. Neither the publisher nor authors shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages.

*Library of Congress Cataloging-in-Publication Data*

Names: Neal-Boylan, Leslie, editor.

Title: The family nurse practitioner : clinical case studies / [edited by] Leslie Neal-Boylan.

Other titles: Clinical case studies for the family nurse practitioner. | Case studies in nursing.

Description: Second edition. | Hoboken, NJ : Wiley-Blackwell, 2021. | Series: Case studies in nursing | Preceded by Clinical case studies for the family nurse practitioner / [edited by] Leslie Neal-Boylan. 2011. | Includes bibliographical references and index.

Identifiers: LCCN 2020026509 (print) | LCCN 2020026510 (ebook) | ISBN 9781119603191 (paperback) | ISBN 9781119603214 (adobe pdf) | ISBN 9781119603221 (epub)

Subjects: MESH: Family Nurse Practitioners | Family Nursing | Primary Care Nursing | Case Reports

Classification: LCC RT82.8 (print) | LCC RT82.8 (ebook) | NLM WY 128 | DDC 610.7306/92–dc23

LC record available at <https://lcn.loc.gov/2020026509>

LC ebook record available at <https://lcn.loc.gov/2020026510>

Cover Design: Wiley

Cover Image: © Arthur Tilley/Getty Images

Set in 10/12pt PalatinoLTStd by SPi Global, Pondicherry, India

# Contents

<b>Contributors</b>	<b>xi</b>
<b>Preface</b>	<b>xv</b>
<b>Acknowledgments</b>	<b>xvii</b>
<b>Introduction</b>	<b>xix</b>
<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Abbreviations and Acronyms</b>	<b>xxi</b>

## Section 1 *The Neonate* 1

<b>Case 1.1</b>	<b>Cardiovascular Screening Exam</b>	<b>3</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 1.2</b>	<b>Pulmonary Screening Exam</b>	<b>7</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 1.3</b>	<b>Skin Screening Exam</b>	<b>11</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 1.4</b>	<b>Oxygenation</b>	<b>15</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 1.5</b>	<b>Nutrition and Weight</b>	<b>19</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	

## Section 2 *The Infant* 23

<b>Case 2.1</b>	<b>Nutrition and Weight</b>	<b>25</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 2.2</b>	<b>Breastfeeding</b>	<b>29</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 2.3</b>	<b>Growth and Development</b>	<b>33</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 2.4</b>	<b>Heart Murmur</b>	<b>37</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	

---

<b>Case 2.5</b>	<b>Cough</b>	<b>41</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 2.6</b>	<b>Diarrhea</b>	<b>45</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 2.7</b>	<b>Fall from Height</b>	<b>49</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Section 3 The Toddler/Preschool Child</b>		<b>53</b>
<b>Case 3.1</b>	<b>Earache</b>	<b>55</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 3.2</b>	<b>Bedwetting</b>	<b>57</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 3.3</b>	<b>Burn</b>	<b>61</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 3.4</b>	<b>Toothache</b>	<b>63</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 3.5</b>	<b>Abdominal Pain</b>	<b>67</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 3.6</b>	<b>Lesion on Penis</b>	<b>71</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Section 4 The School-Aged Child</b>		<b>75</b>
<b>Case 4.1</b>	<b>Rash without Fever</b>	<b>77</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 4.2</b>	<b>Rash with Fever</b>	<b>79</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 4.3</b>	<b>Red Eye</b>	<b>83</b>
	<i>By Andrew Konesky, MSN, APRN</i>	
<b>Case 4.4</b>	<b>Sore Throat</b>	<b>85</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 4.5</b>	<b>Disruptive Behavior</b>	<b>89</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 4.6</b>	<b>Cough and Difficulty Breathing</b>	<b>93</b>
	<i>By Nancy Cantey Banasiak, DNP, PPCNP-BC, APRN</i>	
<b>Case 4.7</b>	<b>Left Arm Pain</b>	<b>95</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 4.8</b>	<b>Nightmares</b>	<b>97</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 4.9</b>	<b>Gastrointestinal Complaint</b>	<b>101</b>
	<i>By Allison Grady, MSN, APNP</i>	



<b>Case 4.10</b>	<b>Food Allergies</b>	<b>103</b>
	<i>By Allison Grady, MSN, APNP</i>	
<b>Case 4.11</b>	<b>Obesity</b>	<b>107</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Section 5 The Adolescent</b>		<b>111</b>
<b>Case 5.1</b>	<b>Drug Use</b>	<b>113</b>
	<i>By Anna Goddard, PhD, APRN, CPNP-PC</i>	
<b>Case 5.2</b>	<b>Weight Loss</b>	<b>115</b>
	<i>By Anna Goddard, PhD, APRN, CPNP-PC</i>	
<b>Case 5.3</b>	<b>Menstrual Cramps</b>	<b>119</b>
	<i>By Vera Borkowski, MSN, APRN, FNP-C</i>	
<b>Case 5.4</b>	<b>Missed Periods</b>	<b>121</b>
	<i>By Vera Borkowski, MSN, APRN, FNP-C</i>	
<b>Case 5.5</b>	<b>Birth Control Decision-Making</b>	<b>123</b>
	<i>By Jessica Chan, MSN, APRN, PPCNP-BC</i>	
<b>Case 5.6</b>	<b>Vaginal Discharge</b>	<b>125</b>
	<i>By Betsy Gaffney, MSN, APRN, FNP-BC</i>	
<b>Case 5.7</b>	<b>Sexual Identity</b>	<b>127</b>
	<i>By Betsy Gaffney, MSN, APRN, FNP-BC</i>	
<b>Case 5.8</b>	<b>Knee Pain</b>	<b>129</b>
	<i>By Jessica Chan, MSN, APRN, PPCNP-BC</i>	
<b>Section 6 Women's Health</b>		<b>133</b>
<b>Case 6.1</b>	<b>Preconception Planning</b>	<b>135</b>
	<i>By Sara Smoller, RN, MSN, ANP-BC</i>	
<b>Case 6.2</b>	<b>Bleeding in the First Trimester of Pregnancy</b>	<b>137</b>
	<i>By Meredith Scannell, PhD, MSN, MPH, CNM, CEN, SANE-A</i>	
<b>Case 6.3</b>	<b>Night Sweats</b>	<b>139</b>
	<i>By Ivy M. Alexander, PhD, APRN, ANP-BC, FAANP, FAAN and Annette Jakubisin-Konicki, PhD, ANP-BC, FNP-BC, FAANP</i>	
<b>Case 6.4</b>	<b>Pelvic Pain</b>	<b>145</b>
	<i>By Meredith Scannell, PhD, MSN, MPH, CNM, CEN, SANE-A</i>	
<b>Case 6.5</b>	<b>Vaginal Itching</b>	<b>147</b>
	<i>By Sara Smoller, RN, MSN, ANP-BC</i>	
<b>Case 6.6</b>	<b>Redness and Swelling in the Breast</b>	<b>149</b>
	<i>By Karen M. Flaherty, MSN, MEd, APRN-BC, CBCN</i>	
<b>Case 6.7</b>	<b>Sexual Assault</b>	<b>151</b>
	<i>By Meredith Scannell, PhD, MSN, MPH, CNM, CEN, SANE-A</i>	
<b>Case 6.8</b>	<b>Abdominal Pain</b>	<b>155</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	

---

<b>Case 6.9</b>	<b>Urinary Frequency</b>	<b>157</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 6.10</b>	<b>Headache</b>	<b>159</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 6.11</b>	<b>Fatigue and Joint Pain</b>	<b>161</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 6.12</b>	<b>Muscle Tenderness</b>	<b>165</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 6.13</b>	<b>Insomnia</b>	<b>169</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Section 7 Men's Health</b>		<b>173</b>
<b>Case 7.1</b>	<b>Fatigue</b>	<b>175</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 7.2</b>	<b>Testicular Pain</b>	<b>179</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 7.3</b>	<b>Prostate Changes</b>	<b>181</b>
	<i>By Clara Gona, PhD, FNP-BC, RN</i>	
<b>Section 8 General Adult Health</b>		<b>183</b>
<b>Case 8.1</b>	<b>Substance Use Disorder (SUD)</b>	<b>185</b>
	<i>By Jason R. Lucey, DNP, FNP-BC</i>	
<b>Case 8.2</b>	<b>Foot Ulcer</b>	<b>187</b>
	<i>By Susan M. Jussaume, MSN, APRN, FNP-BC, AHN-BC</i>	
<b>Case 8.3</b>	<b>Abdominal Pain and Weight Gain</b>	<b>191</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 8.4</b>	<b>Burning Leg Pain</b>	<b>195</b>
	<i>By Antonia Makosky, DNP, MPH, ANP-BC, ANP</i>	
<b>Case 8.5</b>	<b>Difficulty Breathing</b>	<b>197</b>
	<i>By Rebecca Hill, DNP, RN, FNP-C, CNE</i>	
<b>Case 8.6</b>	<b>Burning Epigastric Pain after Meals</b>	<b>199</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 8.7</b>	<b>Chest Pain and Dyspnea without Radiation</b>	<b>201</b>
	<i>By Rebecca Hill, DNP, RN, FNP-C, CNE and Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 8.8</b>	<b>Chest Pain with Radiation</b>	<b>205</b>
	<i>By Rebecca Hill, DNP, RN, FNP-C, CNE</i>	
<b>Case 8.9</b>	<b>Persistent Cough and Joint Tenderness</b>	<b>207</b>
	<i>By Rebecca Hill, DNP, RN, FNP-C, CNE</i>	
<b>Case 8.10</b>	<b>Morning Headache</b>	<b>209</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	

<b>Case 8.11</b>	<b>Facial Pain</b>	<b>211</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 8.12</b>	<b>Fatigue, Confusion, and Weight Loss</b>	<b>213</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 8.13</b>	<b>Hand Numbness</b>	<b>217</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 8.14</b>	<b>Chronic Diarrhea</b>	<b>221</b>
	<i>By Clara M. Gona, PhD, FNP-BC, RN and Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 8.15</b>	<b>Intractable Pain</b>	<b>223</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 8.16</b>	<b>Wrist Pain and Swelling</b>	<b>225</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Section 9</b>	<b>Mental Health</b>	<b>227</b>
<b>Case 9.1</b>	<b>Sad Mood</b>	<b>229</b>
	<i>By Sheila Swales, MS, RN, PMHNP-BC</i>	
<b>Case 9.2</b>	<b>More Than Depression</b>	<b>231</b>
	<i>By Sara Ann Jakub, MA, SYC, LPC and Anna Goddard, PhD, APRN, CPNP-PC</i>	
<b>Case 9.3</b>	<b>Postpartum Depression</b>	<b>235</b>
	<i>By Nancy M. Terres, PhD, RN</i>	
<b>Case 9.4</b>	<b>Anxiety</b>	<b>239</b>
	<i>By Sheila Swales, MS, RN, PMHNP-BC</i>	
<b>Case 9.5</b>	<b>Trauma</b>	<b>241</b>
	<i>By Erin Patterson Janicek, LCSW and Anna Goddard, PhD, APRN, CPNP-PC</i>	
<b>Section 10</b>	<b>The Older Adult</b>	<b>245</b>
<b>Case 10.1</b>	<b>Forgetfulness</b>	<b>247</b>
	<i>By Amy Bruno, PhD, RN, ANP-BC</i>	
<b>Case 10.2</b>	<b>Behavior Change</b>	<b>251</b>
	<i>By Sheila L. Molony, PhD, APRN, GNP-BC, FGSA, FAAN</i>	
<b>Case 10.3</b>	<b>Tremors</b>	<b>255</b>
	<i>By Amy Bruno, PhD, RN, ANP-BC</i>	
<b>Case 10.4</b>	<b>Weight Gain and Fatigue</b>	<b>259</b>
	<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 10.5</b>	<b>Visual Changes</b>	<b>263</b>
	<i>By Millie Hepburn, PhD, RN, ACNS-BC, SCRN</i>	
<b>Case 10.6</b>	<b>Back Pain</b>	<b>267</b>
	<i>By Ivy M. Alexander, PhD, APRN, ANP-BC, FAANP, FAAN</i>	
<b>Case 10.7</b>	<b>Acute Joint Pain</b>	<b>273</b>
	<i>By Sara Smoller, RN, MSN, ANP-BC</i>	

<b>Case 10.8 Itching and Soreness</b>	<b>275</b>
<i>By Sheila L. Molony, PhD, APRN, GNP-BC, FGSA, FAAN</i>	
<b>Case 10.9 Knee Pain</b>	<b>277</b>
<i>By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN</i>	
<b>Case 10.10 Hyperthermia and Mental Status Changes in the Elderly</b>	<b>279</b>
<i>By Suellen Breakey, PhD, RN and Patrice K. Nicholas, DNSc, DHL (Hon), MPH, MS, RN, NP-C, FAAN</i>	
<b>Section 11 Resolutions</b>	<b>281</b>
<b>Index</b>	<b>591</b>

# Contributors

## EDITOR

**Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN**

Mansfield Kaseman Health Clinic

Rockville, MD, USA

## CONTRIBUTORS

**Ivy M. Alexander, PhD, APRN, ANP-BC, FAANP, FAAN**

Professor and Director, Adult-Gerontology Primary Care Track

Coordinator, Clinical Scholarship

School of Nursing

University of Connecticut

Storrs, CT, USA

**Nancy Canteo Banasiak, DNP, PPCNP-BC, APRN**

Associate Professor

Yale University School of Nursing

New Haven, CT, USA

**Vera Borkowski, MSN, APRN, FNP-C**

Family Nurse Practitioner

Child and Family Agency of Southeastern CT

New London, CT, USA

**Suellen Breakey, PhD, RN**

Associate Professor

School of Nursing

MGH Institute of Health Professions

Boston, MA, USA

**Amy Bruno, PhD, RN, ANP-BC**

Term Lecturer  
School of Nursing  
MGH Institute of Health Professions  
Boston, MA, USA

Adult Nurse Practitioner  
Galileo Health  
New York, NY, USA

**Jessica Chan, MSN, APRN, PPCNP-BC**

Coordinator of Medical Services  
Child and Family Agency of Southeastern CT  
New London, CT, USA

**Karen M. Flaherty, MSN, MEd, APRN-BC, CBCN**

Instructor, Academic Support Counselor  
School of Nursing  
MGH Institute of Health Professions  
Boston, MA, USA

**Betsy Gaffney, MSN, APRN, FNP-BC**

Family Nurse Practitioner  
Child and Family Agency of Southeastern CT  
New London, CT, USA

**Anna Goddard, PhD, APRN, CPNP-PC**

Assistant Professor  
College of Nursing  
Sacred Heart University  
Fairfield, CT, USA

Pediatric Nurse Practitioner  
Child and Family Agency of Southeastern CT  
New London, CT, USA

**Clara Gona, PhD, FNP-BC, RN**

Assistant Professors  
School of Nursing  
MGH Institute of Health Professions  
Boston, MA, USA

**Allison Grady, MSN, APNP**

Clinical Instructor  
College of Nursing  
University of Wisconsin–Milwaukee  
Milwaukee, WI, USA

Pediatric Nurse Practitioner  
Medical College of Wisconsin/Children’s Wisconsin Clinics  
Milwaukee, WI, USA

**Millie Hepburn, PhD, RN, SCRNP, ACNS-BC**

Assistant Professor  
Quinnipiac University  
Hamden, CT, USA

**Rebecca Hill, DNP, RN, FNP-C, CNE**

Assistant Professor  
School of Nursing  
MGH Institute of Health Professions  
Boston, MA, USA

Family Nurse Practitioner  
Family Doctors, LLC  
Swampscott, MA, USA

**Erin Janicek, LCSW**

Senior Director of Clinical Services  
Child and Family Agency of Southeastern CT  
New London, CT, USA

**Sara Ann Jakub, MA, SYC, LPC**

Director of Clinical Services for School-Based Health Centers  
Director of Quality Assurance  
Child and Family Agency of Southeastern CT  
New London, CT, USA

**Annette Jakubisin-Konicki, PhD, ANP-BC, FNP-BC, FAANP**

Associate Professor  
Director, Family Nurse Practitioner Primary Care Track  
School of Nursing  
University of Connecticut  
Storrs, CT, USA

**Erin Janicek, LCSW**

Senior Director of Clinical Services  
Child and Family Agency of Southeastern CT  
New London, CT, USA

**Susan M. Jussaume, MSN, APRN, FNP-BC, AHN-BC**

Instructor and Family Nurse Practitioner  
School of Nursing  
MGH Institute of Health Professions  
Boston, MA, USA

**Andrew Konesky, MSN, APRN**

Pediatric Nurse Practitioner  
Child and Family Agency of Southeastern CT  
New London, CT, USA

**Jason R. Lucey, DNP, FNP-BC**

Assistant Professor  
Family Track Co-Coordinator  
School of Nursing  
MGH Institute of Health Professions  
Boston, MA, USA

**Antonia C. Makosky, DNP, MPH, ANP-BC, ANP**

Assistant Professor  
Adult-Gerontology Primary Care Track Co-Coordinator  
School of Nursing  
MGH Institute of Health Professions  
Boston, MA, USA

**Mikki Meadows-Oliver, PhD, RN, FAAN**

Associate Professor  
School of Nursing  
Quinnipiac University  
Hamden, CT, USA

**Sheila L. Molony, PhD, APRN, GNP-BC, FGSA, FAAN**

Professor of Nursing  
Quinnipiac University  
Hamden, CT, USA

**Patrice K. Nicholas, DNSc, DHL (Hon), MPH, MS, RN, NP-C, FAAN**

Distinguished Teaching Professor and Director  
Center for Climate Change, Climate Justice, and Health  
School of Nursing  
MGH Institute of Health Professions  
Boston, MA, USA

**Meredith Scannell, PhD, MSN, MPH, CNM, CEN, SANE-A**

Clinical Research Nurse and Emergency Nurse  
Brigham and Women's Hospital  
Boston, MA, USA

**Sara Smoller, RN, MSN, ANP-BC**

Assistant Professor  
School of Nursing  
MGH Institute of Health Professions  
Boston, MA

Adult Nurse Practitioner  
Family Doctors, LLC  
Swampscott, MA, USA

**Sheila Swales, MS, RN, PMHNP-BC**

Instructor  
School of Nursing  
MGH Institute of Health Professions  
Boston, MA, USA

**Nancy M. Terres, PhD, RN**

Associate Professor of Nursing  
School of Nursing  
MGH Institute of Health Professions  
Boston, MA, USA



# Preface

The purpose of this book is to help clinicians and students better understand how to diagnose and manage typical (and some atypical) patient cases. While the focus is on the nurse practitioner role, this book will be useful to other patient care providers, such as physicians and physician's assistants. The contributing authors have worked hard to update cases from the first edition of this book to better reflect patient-centered language and advances in care. We have developed several new cases, such as one on climate change, to assist clinicians with scenarios that were not as predominant as they are today.

We have presented a variety of patients in these cases with regard to age, gender identity, socioeconomic status, family status, and other considerations. However, please don't hesitate to alter these demographics to tailor the cases for your specific needs.

The contributing authors in this book are all subject matter experts. They have written these cases from real life. Consequently, the cases do not result in cookie-cutter solutions. Critical thinking questions encourage the reader to think carefully about the case as presented and about potential resolutions to the case given variations that occur in real life. These cases should be used to jump-start conversations among students, faculty, and clinicians regarding possible treatment options depending on the individual patient. All cases include the most current research and guidelines for treatment.

The cases are presented chronologically from pediatric to adolescent to adult and older adult. Cases in women's health and men's health have their own separate chapters. Mental health cases are now in a separate chapter.

For this second edition we moved the case resolutions to the end of the book. The best use of the book is to read and analyze the case, alter the demographics of the patient to view the case from multiple perspectives, and then review and discuss the resolutions. Keep in mind that there is typically more than one way to treat a patient and patients should always be diagnosed and treated on an individual basis, so there is often more than one possible resolution to a case. We have only included one resolution per case in this book.



# Acknowledgments

I am so grateful to the readers of the first edition of this book. Thank you for using it. I hope you will find this second edition even more helpful. Many thanks to the contributing authors of this second edition. Several rejoined me from the first edition and others are new to this edition. All were easy to work with and are consummate professionals and excellent clinicians.

Thanks to all the patients and colleagues who've taught me so much throughout the years. Clinical practice and nursing education are my great passions and I'm grateful for all I learn every day.

Finally, thank you to Edward and Natalie Rotkoff, Kevin Boylan, Paul Neal, Corinne Neal, Andrew Neal, and Bonnie Brown.



# Introduction

By Leslie Neal-Boylan, PhD, APRN, CRRN, FAAN, FARN

Family practice is not simply the practice of caring for individuals across the lifespan. Contrary to the perceptions of many students who enter the world of family practice, it is not simply to care for people “from womb to tomb.” Practice that is guided by that philosophy risks missing so much, not only regarding the individual patient’s own health but the family dynamics and the tangible and intangible aspects of the family that impact the individual patient. If the “family” aspect of family practice is ignored or neglected, then the clinician is simply caring for individuals as any clinician would and cannot really style themselves as a family practice clinician regardless of title or certification.

To practice as a family practice clinician, it is important to have a basic understanding first about what is meant by “family” and then how the family is integrated into the plan of care and ultimately often becomes the “patient.” In previous work about home health clinicians, this author found that home health clinicians care for the “patient entity,” which is defined as all those who impact or potentially impact the patient’s health. In family practice, the clinician also cares for and, at the very least, considers the patient entity when developing and pursuing a plan of care for an individual who seeks health care.

The meaning of “family” has undergone significant societal change. Consequently, it is important that the clinician not make assumptions about who is “family” and who is not. It is important to ask the patient who they consider their family. As I write this, society, both nationally and globally, is undergoing the crisis brought on by the coronavirus. Aside from the medical implications, the virus is already having an impact on how people interact with each other. We are required to practice “social distancing,” which requires us to maintain our relationships, whether personal or professional, in other ways besides close proximity or touching. Neighbors are calling to check in on the elderly, especially those who don’t have family nearby, and older adults are checking on the young parents in their neighborhoods who are working from home while trying to manage children who are unable to attend school due to the pandemic. What is the definition of family during a crisis like this? How will we keep each other from becoming socially isolated?

Crises like these imply a new definition of family. Technology allows us to keep in contact despite the prohibition on being physically within six feet of another human being. A crisis like this reminds us how vulnerable we are as human beings, not only to disease but to loneliness and despair. Knowing that others care about us takes on even greater significance. We are reminded that “family,” however we define it, is crucial to our survival.

As clinicians, we are just as vulnerable but have the advantage of a vast store of medical knowledge. As laypersons disseminate misconceptions about how to prevent and treat the virus, nurse practitioners and our health professions colleagues are stepping up to make sure the public has accurate health care information.

Our care of individuals and families does not just take place in the clinic or health care setting. It occurs via every encounter we have with the people in our communities and across cyberspace. The coronavirus crisis illustrates that while we have better means of communication than in years past, we are also vulnerable to more misinformation.

The cases in this book were chosen in an attempt to illustrate mostly typical (and some atypical) cases that occur in family practice. Remembering the impact “family” has on our physical and mental health and that the patient is part of a subsystem within the larger family system can help the reader see that the patient’s illness or condition not only impacts the patient but potentially has a ripple effect on many others both within and outside of the family system.

# Abbreviations and Acronyms

<b>AAA:</b>	Abdominal aortic aneurysm
<b>AACE:</b>	American Association of Clinical Endocrinologists
<b>AAP:</b>	American Academy of Pediatrics
<b>ABG:</b>	Arterial blood gas
<b>ABI:</b>	Ankle brachial index
<b>ACC:</b>	American College of Cardiology
<b>ACIP:</b>	Advisory Committee on Immunization Practices
<b>ACL:</b>	Anterior cruciate ligament
<b>ACS:</b>	Acute coronary syndrome
<b>ADHD:</b>	Attention-deficit hyperactive disorder
<b>ad lib:</b>	At liberty or whenever the patient wants to do something
<b>AGS:</b>	American Geriatrics Society
<b>AHA:</b>	American Heart Association
<b>AMI:</b>	Acute myocardial infarction or heart attack
<b>ANA:</b>	Anti-nuclear antibody
<b>AP:</b>	Anterior-posterior
<b>APA:</b>	American Psychiatric Association
<b>Apgar:</b>	The score given to newborns at 1 minute and 5 minutes after birth. The newborn is scored on activity (muscle tone), pulse, grimace (reflex irritability), appearance (skin color), and respirations.
<b>AS:</b>	Active surveillance
<b>BD:</b>	Blastomycoses dermatitidis
<b>BDI:</b>	Beck Depression Inventory
<b>BMI:</b>	Body mass index
<b>BMP:</b>	Basic metabolic panel
<b>BP:</b>	Blood pressure
<b>BS:</b>	Bowel sounds
<b>BUN:</b>	Blood urea nitrogen
<b>CAD:</b>	Coronary artery disease
<b>CAM:</b>	Complementary and alternative medicine <i>or</i> Confusion Assessment Method
<b>CBC:</b>	Complete blood count, with or without diff (differential)
<b>CBT:</b>	Cognitive behavioral therapy
<b>CCB:</b>	Calcium channel blocker
<b>CCRC:</b>	Continuing care retirement community
<b>CKD:</b>	Chronic kidney disease
<b>CLI:</b>	Critical limb ischemia

<b>CLIA:</b>	Clinical Laboratory Improvement Amendment
<b>CMP:</b>	Complete metabolic panel
<b>CMT:</b>	Cervical motion tenderness
<b>COC:</b>	Combined oral contraceptive pill
<b>COPD:</b>	Chronic obstructive pulmonary disease
<b>COWS:</b>	Clinical Opiate Withdrawal Scale
<b>CRP:</b>	C-reactive protein
<b>C-SSRS:</b>	Columbia–Suicide Severity Rating Scale
<b>CT:</b>	Computed tomography
<b>CTA:</b>	Clear to auscultation
<b>CVA:</b>	Cerebrovascular accident
<b>CXR:</b>	Chest X-ray
<b>D&amp;C:</b>	Dilatation and curettage
<b>DASH:</b>	Dietary Approaches to Stop Hypertension
<b>DDVAP:</b>	Desmopressin acetate vasopressin
<b>DEA:</b>	Drug Enforcement Agency
<b>DFA:</b>	Direct fluorescent antibody (testing)
<b>DMARD:</b>	Disease-modifying antirheumatic drug
<b>DMPA:</b>	Depo-Provera
<b>DoD:</b>	Department of Defense
<b>DOE:</b>	Dyspnea on exertion
<b>DRE:</b>	Digital rectal examination
<b>DVT/PE:</b>	Deep vein thrombosis/pulmonary embolism
<b>DXA:</b>	Dual-energy absorptiometry
<b>EBV:</b>	Epstein-Barr virus
<b>ECG:</b>	Electrocardiogram
<b>ED:</b>	Emergency department
<b>EEG:</b>	Electroencephalogram
<b>ELISA:</b>	Enzyme-linked immunosorbent assay
<b>EM:</b>	Erythema migrans
<b>EMA:</b>	Endomysial antibody
<b>EMDR:</b>	Eye movement desensitization and reprocessing
<b>ENT:</b>	Ear, nose, and throat
<b>EOB:</b>	Explanation of benefits
<b>EOM:</b>	Extraocular movement
<b>EPT:</b>	Expedited partner therapy
<b>ESPGN:</b>	European Society for Pediatric Gastroenterology, Hepatology, and Nutrition
<b>ESR:</b>	Erythrocyte sedimentation rate
<b>ETOH:</b>	Alcohol (drinking kind)
<b>FBG:</b>	Fasting blood glucose
<b>FBS:</b>	Fasting blood sugar
<b>FIT:</b>	Fecal immunochemical test
<b>FM:</b>	Fibromyalgia
<b>FROM:</b>	Full range of motion
<b>FTT:</b>	Failure to thrive
<b>GABHS:</b>	Group A beta-hemolytic streptococci
<b>GAD:</b>	Glutamic acid decarboxylase
<b>GC/CHL:</b>	Gonorrhea/chlamydia
<b>GCA:</b>	Giant cell arteritis
<b>GCS:</b>	Glasgow Coma Scale
<b>GDMT:</b>	Guideline-directed medical therapy
<b>GDS:</b>	Geriatric Depression Scale



---

<b>GERD:</b>	Gastroesophageal reflux disease
<b>GFR:</b>	Glomerular filtration rate
<b>GI:</b>	Gastrointestinal
<b>GINA:</b>	Global Initiative for Asthma
<b>HA1c:</b>	Hemoglobin A1c
<b>HCV:</b>	Hepatitis C virus
<b>HPV:</b>	Human papilloma virus
<b>HR:</b>	Heart rate
<b>HRI:</b>	Heat-related illness
<b>HSDD:</b>	Hypoactive sexual desire disorder
<b>HSM:</b>	Hepatosplenomegaly
<b>HSV:</b>	Herpes simplex virus
<b>HT:</b>	Hormone therapy
<b>HTN:</b>	Hypertension
<b>HZO:</b>	Herpes zoster ophthalmica
<b>IBD:</b>	Inflammatory bowel disease
<b>IBS:</b>	Irritable bowel syndrome
<b>IgA:</b>	Immunoglobulin A
<b>IgE:</b>	Immunoglobulin E
<b>ITP:</b>	Idiopathic thrombocytopenic purpura
<b>IUC:</b>	Intrauterine contraception
<b>IUD:</b>	Intrauterine device
<b>KOH:</b>	Potassium hydroxide
<b>KUB:</b>	Kidneys, ureters, and bladder
<b>LARC:</b>	Long-acting reversible contraceptives
<b>LDH:</b>	Lactic acid dehydrogenase
<b>LEAP:</b>	Learning Early About Peanut
<b>LFT:</b>	Liver function test
<b>LLSB:</b>	Left lower sternal border
<b>LMP:</b>	Last menstrual period
<b>LNMP:</b>	Last normal menstrual period
<b>LR:</b>	Light reflex
<b>LRI:</b>	Lower respiratory infections
<b>LROM:</b>	Limited range of motion
<b>MCI:</b>	Mild cognitive impairment
<b>MCP:</b>	Metacarpal phalangeal (joint)
<b>MCV:</b>	Mean corpuscular volume
<b>MDD:</b>	Major depressive disorder
<b>MDI:</b>	Metered dose inhaler
<b>MGF:</b>	Maternal grandfather
<b>MGM:</b>	Maternal grandmother
<b>MI:</b>	Myocardial infarction <i>or</i> motivational interviewing
<b>MMSE:</b>	Mini-Mental State Examination
<b>MoCA:</b>	Montreal Cognitive Assessment
<b>MRI:</b>	Magnetic resonance imaging
<b>MRSA:</b>	Methicillin-resistant <i>Staphylococcus aureus</i>
<b>MSSA:</b>	Methicillin-susceptible <i>Staphylococcus aureus</i>
<b>MSU:</b>	Monosodium urate
<b>MTP:</b>	Metatarsophalangeal (joint)
<b>MVI:</b>	Multiple vitamin
<b>NAAT:</b>	Nucleic acid amplification test
<b>NAD:</b>	No apparent distress

<b>NAPNAP:</b>	National Association of Pediatric Nurse Practitioners
<b>NARES:</b>	Nonallergic rhinitis with eosinophilia syndrome
<b>NIAAA:</b>	National Institute of Alcohol Abuse and Alcoholism
<b>NICU:</b>	Neonatal intensive care unit
<b>NIDA:</b>	National Institute on Drug Abuse
<b>NKDA:</b>	No known drug allergies
<b>NKFA:</b>	No known food allergies
<b>NOF:</b>	National Osteoporosis Foundation
<b>NP:</b>	Nurse practitioner
<b>NPH:</b>	Normal pressure hydrocephalus
<b>NSAID:</b>	Nonsteroidal anti-inflammatory drug
<b>NSTEMI:</b>	Non-ST elevation myocardial infarction
<b>NSVD:</b>	Normal spontaneous vaginal delivery
<b>NT/ND:</b>	Nontender/nondistended
<b>OA:</b>	Osteoarthritis
<b>O2 sat:</b>	Oxygen saturation
<b>OCP:</b>	Oral contraceptive pill
<b>ODD:</b>	Oppositional defiant disorder
<b>OGTT:</b>	Oral glucose tolerance test
<b>OP:</b>	Osteoporosis
<b>OSA:</b>	Obstructive sleep apnea
<b>OTC:</b>	Over-the-counter (medication)
<b>OUD:</b>	Opioid use disorder
<b>PAD:</b>	Peripheral artery disease
<b>PCOS:</b>	Polycystic ovarian syndrome
<b>PCR:</b>	Polymerase chain reaction
<b>PDA:</b>	Patent ductus arteriosus
<b>PE:</b>	Pulmonary embolism
<b>PEG:</b>	Polyethylene glycol
<b>PEP:</b>	Post-exposure prophylaxis
<b>PERRLA:</b>	Pupils equal, round, reactive to light and accommodation
<b>PGF:</b>	Paternal grandfather
<b>PGM:</b>	Paternal grandmother
<b>PH/G:</b>	Pubic hair/gonads
<b>PHN:</b>	Postherpetic neuralgia
<b>PHQ:</b>	Patient Health Questionnaire
<b>PID:</b>	Pelvic inflammatory disease
<b>PIP:</b>	Proximal interphalangeal (joint)
<b>PLP:</b>	Phantom limb pain
<b>PMDD:</b>	Premenstrual dysphoric disorder
<b>PMR:</b>	Polymyalgia rheumatica
<b>PMS:</b>	Premenstrual syndrome
<b>PNE:</b>	Primary nocturnal enuresis
<b>PPD:</b>	Postpartum depression
<b>PPI:</b>	Proton pump inhibitor
<b>PRN:</b>	As needed
<b>PSI:</b>	Pneumonia Severity Index
<b>PTSD:</b>	Post-traumatic stress disorder
<b>PVD:</b>	Peripheral vascular disease
<b>QD:</b>	Once daily
<b>RAI:</b>	Radionucleotide uptake scan with iodine
<b>RED-S:</b>	Relative energy deficiency in sports

---

<b>REM:</b>	Rapid eye movement
<b>RICE:</b>	Rest, ice, compression, and elevation
<b>ROS:</b>	Review of systems
<b>RR:</b>	Respiratory rate
<b>RRR:</b>	Regular rate and rhythm
<b>RSV:</b>	Respiratory syncytial virus
<b>RUQ:</b>	Right upper quadrant
<b>SAFE-T:</b>	Suicide Assessment Five-Step Evaluation and Triage
<b>SAMHSA:</b>	Substance Abuse and Mental Health Services Administration
<b>SANE:</b>	Sexual assault nurse examiner
<b>SART:</b>	Sexual assault response team
<b>SBHC:</b>	School-based health center
<b>SBIRT:</b>	Screening, Brief Intervention, and Referral for Treatment
<b>SEM:</b>	Systolic ejection murmur
<b>SERM:</b>	Selective estrogen receptor modulator
<b>SGA:</b>	Small for gestational age
<b>SIB:</b>	Self-injurious behavior
<b>SJS:</b>	Stevens-Johnson Syndrome
<b>SLE:</b>	Systemic lupus erythematosus
<b>SM:</b>	Stroke mimic
<b>SNRI:</b>	Serotonin norepinephrine reuptake inhibitor
<b>SSP:</b>	Syringe services program
<b>SSRI:</b>	Selective serotonin reuptake inhibitor
<b>STI:</b>	Sexually transmitted infection
<b>SUD:</b>	Substance use disorder
<b>SWS:</b>	Slow-wave sleep
<b>TANF:</b>	Temporary Assistance for Needy Families
<b>TBI:</b>	Traumatic brain injury <i>or</i> toe brachial index
<b>TBSA:</b>	Total body surface area
<b>TCA:</b>	Tricyclic antidepressant
<b>TEN:</b>	Toxic epidermal necrosis
<b>TENS:</b>	Transcutaneous electrical nerve stimulation
<b>TM:</b>	Tympanic membrane
<b>TPO:</b>	Antithyroid peroxidase antibody
<b>TRAb:</b>	Thyrotropin receptor antibody
<b>TRUS:</b>	Transrectal ultrasound
<b>TSH:</b>	Thyroid-stimulating hormone
<b>tTG:</b>	Tissue transglutaminase
<b>TTN:</b>	Transient tachypnea of the newborn
<b>TTP:</b>	Tenderness to palpation
<b>ULT:</b>	Urate-lowering therapy
<b>URI:</b>	Upper respiratory infection
<b>USPSTF:</b>	U.S. Preventive Services Task Force
<b>UTI:</b>	Urinary tract infection
<b>VA:</b>	Veterans Administration
<b>VCF:</b>	Vertebral compression fracture
<b>VCUG:</b>	Voiding cystourethrography
<b>VDRL:</b>	Venereal disease research laboratory
<b>VZV:</b>	Varicella zoster virus
<b>WBC:</b>	White blood cell
<b>WHI:</b>	Women's Health Initiative
<b>WIC:</b>	Women, Infants, and Children Supplemental Nutrition Program



# Section 1

## The Neonate

<b>Case 1.1</b>	<b>Cardiovascular Screening Exam</b>	<b>3</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 1.2</b>	<b>Pulmonary Screening Exam</b>	<b>7</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 1.3</b>	<b>Skin Screening Exam</b>	<b>11</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 1.4</b>	<b>Oxygenation</b>	<b>15</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	
<b>Case 1.5</b>	<b>Nutrition and Weight</b>	<b>19</b>
	<i>By Mikki Meadows-Oliver, PhD, RN, FAAN</i>	

