MAJOR CHANGES: GENERAL

1. To ensure that the information presented in the *Red Book* is based on the most accurate and up-to-date scientific data, the primary reviewers of each *Red Book* chapter were selected for their specific academic expertise in each particular area. In this edition of the *Red Book*, 62% of the primary reviewers were new for their assigned chapters. This ensures that the *Red Book* content is viewed with fresh eyes with each publication cycle.

2. Every chapter of the *Red Book* has been modified since the 2012 edition. The listing below outlines the more major changes throughout the 2015 edition.

3. All Diagnostic Tests portions of the pathogen-specific chapters in Section 3 were reviewed by a single microbiology laboratory director to ensure that they include the state-of-the-art diagnostic modalities.

4. Throughout the *Red Book*, the number of Web sites where additional current and future information can be obtained has been updated. All Web sites are in bold type for ease of reference, and all have been verified for accuracy and accessibility.

5. Reference to evidence-based policy recommendations from the American Academy of Pediatrics (AAP), the Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and Prevention (CDC), and other select professional organizations have been updated throughout the *Red Book*.

6. Standardized approaches to disease prevention through immunizations, antimicrobial prophylaxis, and infection-control practices have been updated throughout the *Red Book*.

7. Wording regarding doxycycline has been harmonized throughout the *Red Book*. Tetracycline-based antimicrobial agents, including doxycycline, may cause permanent tooth discoloration for children younger than 8 years if used for repeated treatment courses. However, doxycycline binds less readily to calcium compared with older tetracyclines, and in some studies, doxycycline was not associated with visible teeth staining in younger children (see Tetracyclines, p 873).

8. Policy updates released after publication of this edition of the *Red Book* will be posted on *Red Book* Online.

9. Appropriate chapters throughout the *Red Book* have been updated to be consistent with AAP and CDC 2015 vaccine recommendations, CDC sexually transmitted disease guidelines, CDC recommendations for immunization of health care personnel, and drug recommendations from *2015 Nelson’s Pediatric Antimicrobial Therapy*. (Bradley JS, Nelson JD, Cantey JB, Kimberlin DW, Leake JAD, Palumbo PE, Sauberan J, Steinbach WJ, eds. 21st ed. Elk Grove Village, IL: American Academy of Pediatrics; 2015), as well as recommendations for treatment and prevention of opportunistic infections among children infected with or exposed to human immunodeficiency virus (HIV) from the CDC, National Institutes of Health, and Infectious Diseases Society of America.
10. Several tables and figures have been added for ease of information retrieval.

11. The appendices have been consolidated where appropriate, decreasing the number from 13 to 8 and increasing the ease of data retrieval.

SECTION 1. ACTIVE AND PASSIVE IMMUNIZATION

1. An expanded presentation of discussing the benefits of immunization and addressing parental questions about vaccines has been consolidated in Informing Patients and Parents about vaccination rather than in multiple areas of Section 1.

2. Discussion of vaccine ingredients, conjugating agents, preservatives, stabilizers, and adjuvants has been greatly expanded under Vaccine Ingredients.

3. Also under Vaccine Ingredients, the AAP extends its strongest support to the recent Strategic Advisory Group of Experts (SAGE) on immunization recommendations to retain the use of thimerosal in the global vaccine supply. (www.who.int/wer/2012/wer8721.pdf). As advocates for the health of all children, the AAP strongly supports global immunization efforts and recognizes that these programs rely on multidose vials, which require a preservative to ensure vaccine safety. A recent World Health Organization (WHO) assessment supported the continued use of thimerosal-containing vaccines and noted that immunization prevents approximately 2.5 million deaths a year globally (www.who.int/biologicals/Report_THIMEROSAL_WHO_Mtg_3-4_April_2012.pdf). The preponderance of available evidence has failed to demonstrate harm associated with thimerosal in vaccines.

4. Vaccine Handling and Storage has been enhanced, consistent with the renewed emphasis on equipment and procedures as outlined in the June 2012 Office of the Inspector General report.

5. Managing Injection Pain has been significantly expanded on the basis of recent evidence-based recommendations.

6. Inactivated influenza vaccine (IIV) and 13-valent pneumococcal conjugate vaccine (PCV13) can be administered simultaneously, as outlined under the Simultaneous Administration of Multiple Vaccines.

7. Tuberculosis (TB) testing relative to administration of live–virus vaccines has been harmonized with advances in recommendations on TB testing in general, as outlined in the Tuberculosis chapter and the recent AAP Technical Report published in December 2014.

8. The difference between coincidental and causal relationships of a suspected adverse event following vaccination have been expanded upon in the Vaccine Safety chapter. Discussion of the Brighton Collaborative has been incorporated in this chapter has well.

9. Information regarding the FDA’s Postlicensure Rapid Immunization Safety Monitoring (PRISM) system has been added to discussion of active surveillance of vaccine safety.

10. Explanation of the services and benefits provided by the CDC’s Clinical Immunization Safety Network (CISA) has been expanded.

11. The distinction between vaccine contraindications and precautions is clarified and expanded in the Vaccine Safety portion of Section 1.

12. Table 1.12, Managing Immune Globulin Intravenous (IGIV) Reactions, has been added.
13. Because in the United States animal serum immune globulins are available only from the CDC, information on desensitization to animal serum products has been removed from the Red Book.

14. Recommendations on tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine (Tdap) administration with each pregnancy have been updated in the Immunization in Special Clinical Circumstances and the Pertussis chapters.

15. Immunization in Immunocompromised Children has been completely restructured to provide general principles of vaccination in this population as well as to deal in specifics with examples a practitioner is likely to encounter. The new section is harmonized with the 2013 Infectious Diseases of America (IDSA) Clinical Practice Guideline for Vaccination of the Immunocompromised Host, with references to this document being provided for additional specific examples and unusual circumstances.

16. The discussion of biologic response modifiers has been expanded to include preventive strategies that should be employed prior to use of these agents, as well as specific vaccine recommendations.

17. Central nervous system anatomic barrier defects have been added to the consideration of vaccination of immunocompromised children.

18. Active Immunization After Exposure to Disease has been deleted as a chapter in Section 1, and all of the information incorporated into the disease-specific chapters in Section 3.

19. Children in Residential Institutions has been deleted as a chapter in Section 1, and all of the information has been incorporated into the disease-specific chapters in Section 3.

20. Discussion of an accelerated schedule of routine vaccination has been added to the presentation of immunization in US children living outside of the United States.

21. Use of a meningococcal serogroup B vaccine in college settings has been added to the discussion of immunization in college populations.

22. Presentations of immunizations received outside of the United States and unknown or uncertain immunization status of vaccines received in the United States have been consolidated into 1 chapter and expanded in scope.

SECTION 2. RECOMMENDATIONS FOR CARE OF CHILDREN IN SPECIAL CLINICAL CIRCUMSTANCES

1. The list of potential bioterrorism agents that US public health system and primary health care providers must be prepared to address has been updated and is consistent with guidance from the CDC.

2. A preference for hand washing over alcohol-based hand sanitizers for prevention of Clostridium difficile and norovirus infections has been emphasized.

3. Human papillomavirus (HPV) vaccination is recommended following sexual victimization; in such circumstances, the HPV vaccine series should be started as early as 9 years of age.

4. Diagnosis and Treatment of Sexually Transmitted Infections in Adolescents and Children have been updated to harmonize with new AAP and CDC guidelines.
5. Screening for sexually transmitted infections in children who are victims of sexual abuse has been updated to harmonize with new AAP and CDC guidelines.
6. The chapters on evaluation of internationally adopted children, refugees, and immigrant children have been consolidated and completely revised.
7. Tuberculosis testing modalities have been updated by age.
8. Recommendations have been added for repeating HIV serologic testing in children who acquire hepatic C virus following a needlestick from a discarded needle.

SECTION 3. SUMMARIES OF INFECTIOUS DISEASES

1. Actinomycosis. Exclusively oral therapy for cases of cervicofacial actinomycosis has been included.
2. Amebiasis. Identification of the trophozoites or cysts of Entamoeba histolytica provides definitive (rather than presumptive) diagnosis for intestinal tract amebiasis. Clarification has been added that the majority of infected individuals are asymptomatic. The recent association of Entamoeba dispar and E moshkovskii with intestinal and extraintestinal pathology, raising questions about whether they are always nonpathogenic, has been added to the chapter.
3. Amebic Meningoencephalitis. Miltefosine, available through the CDC (770-488-7100), has been added to the chapter as a treatment that has been used successfully Naegleria fowleri.
4. Anthrax. The chapter has been harmonized with the 2014 anthrax preparedness publications of the CDC and AAP.
5. Arboviruses. Licensure of the inactivated Vero cell culture-derived Japanese encephalitis vaccine (IXIARO [JE-VC]) in children has been added to the chapter. The expansion of chikungunya virus into the Caribbean, South America, and North America (local transmission in Florida) has been added to the chapter.
6. Aspergillosis. The epidemiology portion of the chapter has been expanded to include additional modes of transmission and specific times in which acquisition is more likely. Dosing of voriconazole and prioritization of second-line agents has been added to the chapter.
7. Bacillus cereus Infections. For intraocular Bacillus cereus infections, a recommendation has been added that an ophthalmologist should be consulted regarding use of intravitreal vancomycin therapy in addition to systemic therapy.
8. Bacterial Vaginosis. The diagnostic portion of the chapter has been updated and expanded, including use of rapid tests and molecular diagnostics.
9. Infections With Blastocystis hominis and Other Subtypes. The chapter has been broadened to include discussion of subtypes other than Blastocystis hominis.
10. Blastomycosis. The treatment portion of the chapter has been harmonized with recommendations from the Infectious Diseases Society of America (IDSA).
11. Candidiasis. Treatment recommendations have been harmonized with those of the IDSA.
12. Chlamydia trachomatis. Diagnostic evaluations for Chlamydia trachomatis were updated to harmonize with the 2014 AAP policy statement on screening for nonviral sexually transmitted infections in adolescents and young adults.
13. Clostridium difficile. The Treatment portion of the chapter has been expanded to more prominently include nitazoxanide and fecal transplant (intestinal microbiota transplantation).
14. **Coccidioidomycosis.** The increasing incidence in coccidioidomycosis over the past 15 years has been added to the chapter.

15. **Coronaviruses, Including SARS and MERS.** MERS-CoV, the human coronavirus that causes Middle Eastern respiratory syndrome, has been added to the chapter. Advancements in the diagnostics for the other human coronaviruses also have been updated.

16. **Cryptosporidiosis.** The occurrence of cryptosporidiosis in solid organ transplant patients has been emphasized.

17. **Cytomegalovirus Infection.** Diagnosis and treatment of congenital cytomegalovirus (CMV) infection and disease has been updated, including a recommendation to treat patients with symptomatic congenital CMV disease with or without central nervous system involvement for 6 months with oral valganciclovir.

18. **Dengue.** The clinical manifestations of dengue have been updated.

19. **Ehrlichia, Anaplasma, and Related Infections.** The diagnostic portion of the chapter has been updated, including enhanced presentation of molecular diagnostics. The list of human ehrlichiosis and anaplasmosis that occur worldwide has been expanded. Heartland virus also has been added to the differential diagnosis.

20. **Enterovirus (Nonpoliovirus).** The enterovirus D68 outbreak during the summer and fall of 2014 has been incorporated into the chapter, including respiratory manifestations and the potential relationship with acute flaccid myelitis. Antiviral options for the management of enteroviral infections have been expanded. Parechoviruses have been separated out as their own specific chapter.

21. **Epstein-Barr Virus Infections.** The pathogenesis of Epstein-Barr virus has been expanded, and management of primary Epstein-Barr virus infections relating to return to sport activities has been updated.

22. **Escherichia coli and Other Gram-Negative Bacilli.** The diagnostic portion of the chapter has been updated, including enhanced presentation of molecular diagnostics. Recommendations for treatment of infections caused by carbapenemase-producing gram-negative organisms have been added.

23. **Escherichia coli Diarrhea.** New molecular diagnostic tests are discussed.

24. **Giardia intestinalis (formerly Giardia lamblia and Giardia duodenalis) Infections.** Treatment of *Giardia intestinalis* infections in HIV-infected people has been harmonized with recommendations from the IDSA.

25. **Gonococcal Infections.** Information on diagnosis and treatment of gonococcal infections has been updated extensively to harmonize with the 2014 AAP policy statement and CDC guidelines. This includes expanded recommendations for use of molecular diagnostic testing, and thorough presentation of treatment recommendations that have been modified in response to emerging antibiotic resistance and treatment failure data.

26. **Haemophilus influenzae Infections.** The HibMenCY vaccine has been added to the chapter. Vaccine recommendations have been updated for immunocompromised people and those with other underlying conditions.

27. **Helicobacter pylori Infections.** The treatment portion of the chapter has been harmonized with recent childhood guidelines from the European Society for Pediatric Gastroenterology, Hepatology and Nutrition and North American Society for Pediatric Gastroenterology, Hepatology and Nutrition.

28. **Hemorrhagic Fevers Caused by Arenaviruses.** Access to intravenous ribavirin in the management of Lassa fever has been added to the chapter.
29. **Hemorrhagic Fevers Caused by Bunyaviruses.** Discussion of Heartland virus has been added to the chapter.

30. **Hemorrhagic Fevers Caused by Filoviruses: Ebola and Marburg.** A new chapter on Hemorrhagic Fevers Caused by Filoviruses, including Ebola and Marburg, has been added to the *Red Book*. The chapter was released in advance of publication in November 2014 to aid in pediatric management of Ebola, marking the first time in its 77-year history that a *Red Book* chapter was released before publication.

31. **Hepatitis C.** Treatment advances, including protease inhibitors, polymerase inhibitors, and inhibitors of the nonstructural NS5A enzyme replication complex of hepatitis C virus, have been incorporated into the chapter.

32. **Herpes Simplex Virus.** The AAP management algorithm for infants born to women with active herpetic lesions has been added to the chapter. Diagnostic and management updates have been added to the portion of the chapter addressing neonatal herpes simplex virus infections.

33. **Human Herpesvirus 6.** Human herpesvirus 6 now is separated into 2 species: HHV-6A and HHV-6B. Previously, these were classified as 2 distinct subgroups known as variants A and B. With the designation as separate species, the number of known human herpesviruses has increased to 9.

34. **Human Immunodeficiency Virus.** The chapter has been updated with the new recommendations for treatment and prevention of opportunistic infections among children infected with or exposed to HIV from the CDC, National Institutes of Health, and Infectious Diseases Society of America. The natural history of the disease in the antiretroviral era also has been updated.

35. **Influenza.** The chapter has been updated to reflect the most recent seasons’ epidemiology, including circulating strains. The discussion of molecular diagnostics has been expanded. Use of oseltamivir down to 2 weeks of age has been added, following the expansion of the ages for which the drug is licensed by the US Food and Drug Administration (FDA). Data on febrile seizures following concomitant use of IIV and PCV13 has been updated.

36. **Kawasaki Disease.** The identification of a respiratory virus by molecular testing does not necessarily exclude the diagnosis of Kawasaki disease in infants and children who otherwise meet diagnostic criteria. Wording also has been added that hemolysis requiring transfusion has occurred after IGIV treatment in children with Kawasaki disease because of isoagglutinins in the products; hemoglobin concentrations should be monitored after high/repeated-dose IGIV infusions in at-risk children.

37. **Leishmaniasis.** Clinical manifestations of leishmaniasis have been expanded. Treatment of cutaneous, mucosal, and visceral leishmaniasis has been updated with the oral agent miltefosine, now approved as treatment for infection caused by particular *Leishmania* species in patients who are at least 12 years of age, weigh at least 30 kg (66 pounds), and are not pregnant or breastfeeding.

38. **Leprosy.** The clinical manifestations of leprosy have been expanded, and the recommendation for routine household screening has been removed.

39. **Listeria monocytogenes Infections.** Options for the treatment of *Listeria monocytogenes* infections have been expanded, although penicillin and gentamicin remain the standards.
40. **Lyme Disease.** Treatment duration has been clarified, and antimicrobial agents of choice have been specified for select disease manifestations (eg, facial nerve palsy). Discussion of “chronic Lyme disease” and post-Lyme disease symptoms has been added.

41. **Measles.** Evidence of immunity for measles has been revised since the last publication of the *Red Book*. Use of Immune Globulin products for measles prevention, vaccination for people with HIV infection, and vaccination of health care personnel born before 1957 also have been updated. Management of exposed susceptible patients also has been expanded.

42. **Meningococcal Infections.** Vaccination ages and recommendations have been updated to account for recently licensed products and age indications. Ciprofloxacin has been added to rifampin as a drug of choice for most children in whom chemoprophylaxis is indicated.

43. **Microsporidia Infections.** Microsporidia infections in people who have received organ transplantation are emphasized to a greater extent than in previous editions. Treatment options for keratoconjunctival infections caused by microsporidia have been added.

44. **Mycoplasma pneumoniae Infections.** Presentation on the use of molecular diagnostics has been expanded. Recommendations limiting use of macrolide therapies in the outpatient setting, and especially among preschool-aged children, have been updated.

45. **Nocardiosis.** The diagnostic tests portion of the chapter has been expanded.

46. **Human Papillomavirus.** Human papillomavirus vaccine is recommended beginning at 9 years of age in children with suspected child sexual abuse. Additionally, information has been added on the 9-valent human papillomavirus vaccine that was licensed for use in the United States in December 2014.

47. **Human Parechovirus Infections.** A new chapter on human parechovirus infections has been incorporated into the *Red Book*. Previously, parechoviruses were included in the Enterovirus chapter.

48. **Pediculosis Capitis.** Language regarding use of lindane shampoo for the treatment of head lice has been strengthened from “no longer is recommended” in the 2012 *Red Book* to “should not be used in the treatment of pediculosis capitis” in the 2015 *Red Book*. A table has been added comparing the costs of the different over-the-counter and prescription treatment options.

49. **Pertussis (Whooping Cough).** The correlation of lack of natural booster events plus waning immunity since the most recent immunization, particularly when acellular pertussis vaccine is used for the entire immunization series, with the increased cases of pertussis reported in school-aged children, adolescents, and adults is addressed. The definition of “close contact” for purposes of postexposure prophylaxis has been added. Administration of Tdap to pregnant women with every pregnancy irrespective of previous Tdap history has been added. Contraindications and precautions language for Tdap has been streamlined.

50. **Pneumococcal Infections.** Vaccination recommendations using PCV13 and 23-valent pneumococcal polysaccharide vaccine (PPSV23) for the prevention of pneumococcal infections in high-risk patients 6 to 18 years of age have been updated.
51. **Poliovirus.** The status of the worldwide poliovirus eradication program has been added to the chapter. Clinical presentation and history also have been expanded, and new recommendations have been included for poliovirus vaccination among travelers who are residing for 4 or more consecutive weeks in countries with ongoing poliovirus transmission and are leaving those countries to go to polio-free countries.

52. **Polyomaviruses.** Additional treatments under evaluation have been added to the chapter.

53. **Prion Diseases: Transmissible Spongiform Encephalopathies.** New diagnostic tests in development have been added to the chapter.

54. **Q fever (Coxiella burnetii Infection).** Diagnosis and management have been updated in accordance with 2013 guidance from the CDC.

55. **Respiratory Syncytial Virus.** The chapter has undergone substantial modification. Management of bronchiolitis has been updated to include recommendations in the 2014 AAP bronchiolitis clinical practice guideline, including limitations on use of alpha- and beta-adrenergic agents and corticosteroids. Recommendations for use of palivizumab have been updated to reflect the 2014 AAP policy statement on palivizumab immunoprophylaxis. The most substantial change from previous guidance is the recommendation limiting use of palivizumab in preterm infants without chronic lung disease or congenital heart disease to those born at less than 29 weeks’ gestational age.

56. **Rocky Mountain Spotted Fever.** Polymerase chain reaction detection of *R. rickettsii* DNA in acute whole blood and serum specimens now is the diagnostic modality of choice for Rocky Mountain spotted fever, although a fourfold or greater rise in antigen-specific immunoglobulin G between acute and convalescent sera obtained 2 to 6 weeks apart also remains an acceptable way to confirm the diagnosis.

57. **Rotavirus Infections.** The chapter has been updated with current data on the small risk of intussusception from the currently licensed rotavirus vaccines in the United States.

58. **Salmonella Infections.** The recent recognition of invasive disease in sub-Saharan Africa caused by certain serovars of non-typhoidal *Salmonella* that are highly lethal and distinct genetically from their serovar counterparts causing pediatric disease in industrialized countries has been added to the chapter.

59. **Shigella Infections.** Antibiotic treatment options, including emerging resistance to azithromycin, have been added to the chapter.

60. **Staphylococcal Infections.** New data on methods of reducing skin and soft tissue infection recurrences attributable to *Staphylococcus aureus* have been added to the chapter.

61. **Group A Streptococcal Infections.** A more definitive recommendation has been added to the chapter stating that a throat swab specimen with a negative rapid antigen test result from children be submitted to laboratory for isolation of group A streptococci. Additionally, the recommended dosages for several antibiotics for the treatment of group A streptococcal pharyngitis have been updated.

62. **Group B Streptococcal Infections.** Recently defined long-term neurologic sequelae among survivors of neonatal group B streptococcal infections have been added to the chapter. A smart phone app has been developed to guide management of pregnant women and their infants regarding testing for group B streptococcal infection.
63. **Syphilis.** The chapter has been updated with recent epidemiologic data. Treponemal specific tests have been revised to include new assays that have been recently released or are in development.

64. **Tetanus.** Antibody kinetics following administration of tetanus toxoid and Tetanus Immune Globulin (TIG) have been added to the chapter.

65. **Tinea capitis.** A treatment table has been added to the chapter, detailing recommended treatment options.

66. **Toxoplasma gondii Infections.** The seasonality and the transmission within families of *Toxoplasma gondii* infections have been updated.

67. **Trichomonas vaginalis Infections.** The molecular diagnostic modalities and screening recommendations for diagnosis of *Trichomonas vaginalis* infections have been updated to harmonize with the 2014 AAP policy statement on screening for nonviral sexually transmitted infections in adolescents and young adults.

68. **Trichuriasis.** The treatment of choice for trichuriasis now is albendazole, because mebendazole no longer is available in the United States.

69. **Tuberculosis.** Tuberculosis testing modalities have been updated by age, including a flow diagram guiding the use of tuberculin skin test (TST) and interferon-g release assay (IGRA) by age and bacille Calmette-Guérin (BCG) immunization status that is consistent with the AAP technical report published in November 2014. Dosing of commonly used drugs for treatment of tuberculosis in infants, children, and adolescents has been harmonized with WHO dosing recommendations. Several treatment options are provided for management of latent tuberculosis infection, with prioritization provided by regimen to manage likelihood of satisfactory completion of therapy and, therefore, risk of development of resistance. Discussion of populations at risk of tuberculosis has been expanded.

70. **Diseases Caused by Nontuberculous Mycobacteria.** Cutaneous infections following cosmetic surgery increasingly are recognized among the diseases caused by nontuberculous mycobacteria. Recognition that biologic response modifiers increase the risk of nontuberculous mycobacterial disease has been added.

71. **Tularemia.** Gentamicin has been designated the treatment of choice for tularemia because of the limited availability of streptomycin.

72. **Varicella-Zoster Infections.** A flow diagram outlining management of exposures to people with varicella-zoster infections has been added.

73. **Vibrio cholerae Infections.** Antibiotic treatment recommendations for *Vibrio cholerae* infections are provided in a new table.

**SECTION 4. ANTIMICROBIAL AGENTS AND RELATED THERAPY**

1. The fluoroquinolone portion of the **Antimicrobial Agents and Related Therapy** chapter has been updated to include data recently incorporated into package inserts for this class of drug.

2. The **Antimicrobial Resistance and Antimicrobial Stewardship: Appropriate and Judicious Use of Antimicrobial Agents** chapter has been broadened and updated with the principles of antimicrobial stewardship, judicious use of antibiotics for respiratory tract infections, and antimicrobial resistance. Chapter content has been harmonized with AAP and CDC publications.
3. Information has been added on whether generic formulations are available for each of the antimicrobial agents in Table 4.3: Antibacterial Drugs for Pediatric Patients Beyond the Newborn Period.
4. The table on treatment of Sexually Transmitted Infections has been updated extensively to harmonize with the 2014 CDC sexually transmitted infection guidelines.
5. A table with the relative susceptibilities of different fungal species has been added to the Antifungal Drugs for Systemic Fungal Infections chapter.
6. Target concentrations for therapeutic drug monitoring for itraconazole and voriconazole have been added to the Recommended Doses of Parenteral and Oral Antifungal Drugs table.
7. The rapidly expanding repertoire of antiviral agents to treat hepatitis C virus infection has been added to the Non-HIV Antiviral Drugs table.
8. The Drugs for Parasitic Infections table has been completely revised to reflect up-to-date treatment guidance from the CDC Web site for each parasitic pathogen, rather than the periodically published Medical Letter that had been reproduced previously.

SECTION 5. ANTIMICROBIAL PROPHYLAXIS

1. The Antimicrobial Prophylaxis chapter has been updated to reflect results from the Randomized Intervention for Children with Vesicoureteral Reflux (RIVUR) study, sponsored by the National Institute of Diabetes and Digestive and Kidney Diseases, of chemoprophylaxis of recurrent febrile or symptomatic urinary tract infections.
2. The 2013 clinical practice guidelines on antimicrobial prophylaxis prior to and during surgery from the American Society of Health-System Pharmacists (ASHP), the IDSA, the Surgical Infection Society (SIS), and the Society for Healthcare Epidemiology of America (SHEA) have been incorporated into the Antimicrobial Prophylaxis in Pediatric Surgical Patients chapter. This includes use of preoperative nasal mupirocin and chlorhexidine baths for Staphylococcus aureus carriers to reduce the risk of deep surgical site infections as an adjunct to intravenous prophylaxis in adult cardiac and orthopedic surgery patients.

APPENDICES

1. The Directory of Resources (Appendix I) has been updated with current Web links and telephone numbers. Several additional vaccine safety Web sites have been added.
2. The Codes for Commonly Administered Pediatric Vaccines/Toxoids and Immune Globulins (Appendix II) has been updated with the International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10) codes that are scheduled to be released on October 1, 2015.
3. The table of Nationally Notifiable Infectious Diseases in the United States (Appendix IV) has been updated to match those infectious agents listed at the time of publication of the 2015 Red Book.
4. Norovirus has been added as the most common cause of foodborne illness in Prevention of Infectious Disease From Contaminated Food Products (Appendix VI).