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Evidence-Based Diagnosis

ELSEVIER

FRED F. FERRI

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Mesenteric adenitis	I	Delayed passage of meconium	I	Alzheimer's disease	I
Methicillin resistant <i>Staphylococcus aureus</i> (MRSA)	I	Fever, non-infectious causes	II	Amaurosis fugax	I
Microsporidiosis	I	Food allergies	I	Amblyopia	I
Molluscum contagiosum	I	Groin lump	II	Amyotrophic lateral sclerosis	I
Mononucleosis	I	Iliac fossa pain, left sided	II	Anisocoria	III
Mononucleosis, monospot negative	II	Iliac fossa pain, right sided	II	Anoxic brain injury	I
Mucormycosis	I	Lactic acidosis	I	Astrocytoma	I
Multidrug-resistant gram-negative rods (MRD-GNRs)	I	Malignant hyperthermia	I	Ataxia	I
Mumps	I	Mediastinitis	I	Ataxia, acute or recurrent	II
Necrotizing fasciitis	I	Mediastinal compartments, anatomy and pathology	II	Ataxia, cerebellar, adult onset	II
Necrotizing pneumonias	II	Methanol and ethylene glycol poisoning	I	Ataxia, cerebellar, children	II
Nocardiosis	I	Opioid dependence	I	Ataxia, chronic or progressive	II
Nongonococcal urethritis	I	Paraneoplastic syndromes	I	Ataxia, progressive	III
Onychomycosis	I	Pleurisy	I	Ataxia telangiectasia	I
Orchitis	I	Retroperitoneal fibrosis	I	Autistic spectrum disorders	I
Osteomyelitis	I	Sarcoma	I	AV malformations, cerebral	I
Otitis externa	I	Sore throat	II	Ballism	II
Otitis media	I	Statin-induced muscle syndromes	I	Bell's palsy	I
Paronychia	I	Tracheobronchial narrowing on x-ray	II	Benign paroxysmal positional vertigo	I
Pediculosis	I	Vitamin D deficiency	I	Blindness, monocular, transient	II
Pelvic abscess	I	Vitamin deficiency (hypovitaminosis)	I	Brain neoplasm	I
Pelvic inflammatory disease	I			Brain neoplasm, benign	I
Perirectal abscess	I	NEPHROLOGY		Brain neoplasm, glioblastoma	I
Peritonitis, secondary	I	Acid-base homeostasis	III	Carotid stenosis	I
Pertussis	I	Acidosis, metabolic, algorithm	III	Carpal tunnel syndrome	I
Pharyngitis/tonsillitis	I	Acute kidney injury	I	Cerebral infarction secondary to inherited disorders	II
Pinworms	I	Acute tubular necrosis	I	Cerebral palsy	I
Pneumonia, aspiration	I	Acute urinary retention (AUR)	I	Cerebral vasculitis	I
Pneumonia, mycoplasma	I	Alkalosis, metabolic, algorithm	III	Cerebrospinal fluid (CSF)	IV
Pneumonia, <i>pneumocystis jiroveci</i>	I	AV malformations, cerebral	I	Charcot-Marie-Tooth disease	I
Pneumonia, viral	I	Bartter's syndrome	I	Chorea	I
Poliomyelitis	I	Calcium stones	II	Chronic inflammatory demyelinating polyneuropathy	I
Primary immunodeficiency disease	I	Cardiorenal syndrome	I	Cogan's syndrome	I
Prostatitis	I	Chronic kidney disease	I	Complex regional pain syndrome	I
Psittacosis	I	Dehydration correction, pediatric patient	III	Concussion	I
Pyelonephritis	I	Edema, generalized, algorithm	III	Convulsive disorder, pediatric age	III
Q fever	I	Glomerulonephritis, acute	I	Creutzfeldt-Jacob disease	I
Rabies	I	Glomerulonephritis, rapidly progressive	II	Daytime sleepiness	II
Reiter's syndrome (reactive arthritis)	I	Glomerulopathies, thrombotic, microangiopathic	II	Delirium	II
Renalabscess	I	Glomerulosclerosis, focal segmental	II	Delirium, agitated	II
Respiratory syncytial virus (RSV)	I	Goodpasture's syndrome	I	Delirium, dialysis patient	II
Rheumatic fever	I	Granulomatosis with polyangiitis (Wegener granulomatosis)	I	Dementia, algorithm	III
Rocky Mountain spotted fever	I	Hematuria, in children	II	Dementia with Lewy bodies	II
Roseola	I	Hemolytic-uremic syndrome	I	Diabetic polyneuropathy	I
Rubella (German measles)	I	Hepatorenal syndrome	I	Dilated pupil	III
Salmonellosis	I	Hydronephrosis	I	Diplopia, monocular	II
Scabies	I	Hypercalcemia, algorithm	IV	Diplopia, vertical	II
Scarlet fever	II	Hyperkalemia, differential diagnosis	I	Dissociative disorders	II
Schistosomiasis	I	Hyperkalemia, evaluation and treatment, algorithm	IV	Dizziness	II
Sepsis	I	Hypermagnesemia, algorithm	IV	Down syndrome	I
Septic arthritis	I	Hypernatremia, algorithm	IV	Dystonia	I
Severe acute respiratory syndrome	I	Hyperuricemia	I	Elbow pain	II
Shigellosis	I	Hypocalcemia, laboratory differential diagnosis	II	Encephalomyelitis, nonviral causes	II
Sialadenitis	I	Hypokalemia, algorithm	IV	Encephalopathy	I
Sinusitis	I	Hypokalemia, differential diagnosis	II	Epidural abscess	I
Smallpox	I	Hypomagnesemia, algorithm	IV	Epidural hematoma	I
Sore throat	II	Hypomagnesemia, differential diagnosis	II	Esotropia	II
Spinal epidural abscess	I	Hyponatremia	II	Essential tremor	I
Spontaneous bacterial peritonitis	I	Hyponatremia, algorithm	IV	Febrile seizures	I
Sporotrichosis	I	Hypoparathyroidism	I	Footdrop	II
Stomatitis	I	Hypophosphatemia, algorithm	IV	Friedreich's ataxia	I
Stye (hordeolum)	I	IgA nephropathy	I	Generalized tonic-clonic seizures	I
Syphilis	I	Interstitial nephritis	I	Guillain-Barré syndrome	I
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Tetanus	I	Microscopic polyangiitis	II	Headache, chronic	II
Thrombophlebitis, superficial	I	Milk-alkali syndrome	I	Hearing loss, algorithm	III
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Tinea cruris	I	Nephrocalcinosis	II	HIV cognitive dysfunction	I
Tinea versicolor	I	Nephrogenic systemic fibrosis	I	Hornet's syndrome	I
Toxoplasmosis	I	Nephrotic syndrome	I	Huntington's chorea	I
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Tuberculosis, pulmonary	I	Renal artery stenosis	I	Inflammatory myopathies	I
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Preface

This book is intended to be a clear and concise reference for physicians and allied health professionals. Its user-friendly format was designed to provide a fast and efficient way to identify important clinical information and to offer practical guidance in patient management. The book is divided into five sections and an appendix, each with emphasis on clinical information.

The tremendous success of the previous editions and the enthusiastic comments from numerous colleagues have brought about several positive changes. Each section has been significantly expanded from prior editions, bringing the total number of medical topics covered in this book to more than 1000. Nearly 400 new illustrations and tables have been added to the edition to enhance recollection of clinically important facts. The expedited claims submission and reimbursement ICD-10CM codes have been added to all the topics.

Section I describes in detail more than 800 medical disorders. Nineteen new topics have been added to the 2017 edition. Each medical topic in this section is arranged alphabetically, and the material in each topic is presented in outline format for ease of retrieval. Topics with an accompanying algorithm in Section III are identified with an algorithm symbol (ALG). Similarly, if topics also have a Patient Teaching Guide (PTG) available online, this has been noted. Throughout the text, key quick-access information is consistently highlighted, clinical photographs are used to further illustrate selected medical conditions, and relevant ICD-10CM codes are listed. Most references focus on current peer-reviewed journal articles rather than outdated textbooks and old review articles. Evidence-based medicine data have been added to relevant topics.

Topics in Section I use the following structured approach:

1. Basic Information (Definition, Synonyms, ICD-10CM Codes, Epidemiology & Demographics, Physical Findings & Clinical Presentation, Etiology)
2. Diagnosis (Differential Diagnosis, Workup, Laboratory Tests, Imaging Studies)
3. Treatment (Nonpharmacologic Therapy, Acute General Rx, Chronic Rx, Disposition, Referral)
4. Pearls & Considerations (Comments, Suggested Readings)
5. Evidence-Based Data and References

Section II includes the differential diagnosis, etiology, and classification of signs and symptoms. This section has been significantly expanded for the 2017 edition with the addition of 50 new topics. It is a practical section that allows the user investigating a physical complaint or abnormal laboratory value to follow a “workup” leading to a diagnosis. The physician can then easily look up the presumptive diagnosis in Section I for the information specific to that illness.

Section III includes clinical algorithms to guide and expedite the patient’s workup and therapy. Nineteen new algorithms have been added for the 2017 edition. Many physicians describe this section as particularly valuable in today’s managed-care environment.

Section IV includes normal laboratory values and interpretation of results of commonly ordered laboratory tests. Several new illustrations and tables have been added to this section. By providing interpretation of abnormal results, this section facilitates the diagnosis of medical disorders and further adds to the comprehensive, “one-stop” nature of our text.

Section V focuses on preventive medicine. Information in this section includes recommendations for the periodic health examination, screening for major diseases and disorders, patient counseling, and immunization and chemoprophylaxis recommendations.

The **Appendix** has been divided into six major sections. Section I contains extensive information on complementary and alternative medicine (CAM). With the material in this appendix, we hope to lessen the current scarcity of exposure of allopathic and osteopathic physicians to the diversity of CAM therapies. Appendix II focuses on nutrition, with an emphasis on dietary supplements, vitamins, and minerals. Appendix III deals with diagnosis and treatment of acute poisoning. Appendix IV is a guide on impairment and disability evaluation. Appendix V, available online, contains an extensive section on primary care procedures. Appendix VI contains several patient teaching guides not linked to Section I topics.

As clinicians, we all realize the importance of patient education and the need for clear communication with our patients. Toward that end, practical patient instruction sheets, organized alphabetically and covering the majority of the topics in this book, are available online and can be easily customized and printed from any computer. They represent a valuable addition to patient care and are useful for improving physician-patient communication, patient satisfaction, and quality of care.

I believe that we have produced a state-of-the-art information system with significant differences from existing texts. It contains five sections and patient education guides that could be sold separately based on their content, yet are available under a single cover, offering the reader a tremendous value. I hope that the *Clinical Advisor’s* user-friendly approach, numerous unique features, and yearly updates will make this book a valuable medical reference, not only to primary care physicians but also to physicians in other specialties, medical students, and allied health professionals.

Fred F. Ferri, M.D., F.A.C.P.

Note: Comments from readers are always appreciated and can be forwarded directly to Dr. Ferri at fred_ferri@brown.edu.

EVALUATION OF EVIDENCE

Ferri's Clinical Advisor evaluates all evidence based on a rating system published by the American Academy of Family Physicians. In order to indicate the strength of the supporting evidence, each summary statement is accorded one of three levels:

LEVEL A

- Systematic reviews of randomized controlled trials, including meta-analyses
- Good-quality randomized controlled trials

LEVEL B

- Good-quality nonrandomized clinical trials
- Systematic reviews not in Level A
- Lower-quality randomized controlled trials not in Level A
- Other types of study: case-control studies, clinical cohort studies, cross-sectional studies, retrospective studies, and uncontrolled studies

LEVEL C

- Evidence-based consensus statements and expert guidelines

SOURCES OF EVIDENCE

Evidence is summarized principally from three critically evaluated, very highly regarded sources:

- **Cochrane Systematic Reviews** are respected throughout the world as one of the most rigorous searches of medical journals for randomized controlled trials. They provide highly structured systematic reviews, with evidence included or excluded on the basis of explicit quality-related criteria, and they often use meta-analyses to increase the power of the findings of numerous studies.
- **Clinical Evidence** is produced by the BMJ Publishing Group. It provides synopses of the best currently available evidence on the treatment and prevention of many clinical conditions, based on searches and appraisals of the available literature.
- **The National Guideline Clearinghouse™** is a comprehensive database of evidence-based clinical practice guidelines and related documents produced by the Agency for Healthcare Research and Quality in partnership with the American Medical Association and the American Association of Health Plans.

In addition, where evidence exists that has not yet been critically reviewed in one of the three sites above, the evidence is summarized briefly, categorized, and fully referenced. Guidelines are also sourced from government and professional bodies.

Ferri's Clinical Advisor 2017 — How to Use This Book



Mouse icon – Indicates content with additional references, figures, or tables available at www.expertconsult.com



PTG icon – indicates an accompanying Patient Teaching Guide available at www.expertconsult.com There are also many additional PTGs online not linked to a topic in Section I.



ALG icon – indicates a topic with an accompanying Algorithm in Section III or additional Algorithms available at www.expertconsult.com



EBM icon – indicates evidence-based medicine data added to relevant topics available at www.expertconsult.com

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Bartter's syndrome
Behçet's disease
Biceps tendonitis
Bisphosphonate-related osteonecrosis of the jaw
Blastomycosis
Breech birth
Brucellosis
Burning mouth syndrome
Cerebral palsy
Cerebral vasculitis
Cervical disk syndromes
Cervical insufficiency
Chagas' disease
Chancroid
Cholera
Chorea
Coccidioidomycosis
Cogan's syndrome
Colorado tick fever
Conduct disorder
Congenital adrenal hyperplasia
Conversion disorder
Corneal ulceration
Creutzfeldt-Jakob disease
Croup (laryngotracheobronchitis)
Cryptorchidism
Cubital tunnel syndrome
Cutaneous larva migrans
Dengue fever
Dependent personality disorder
Digoxin overdose
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Dissociative disorders
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Factitious disorder (including Munchausen syndrome)
Feltz's syndrome

Filariasis
Frozen shoulder
Ganglia
Gingivitis, necrotizing ulcerative (NUG)
Granuloma inguinale
Granulomatous arthritis
Hantavirus pulmonary syndrome
Health care-associated infections (HAIs)
Hemorrhoids
Hiatal hernia
Histiocytosis X (Langerhans cell histiocytosis)
Hypereosinophilic syndrome
Hypospadias
ID reaction
Idiopathic intracranial hypertension
Infantile hypotonia
Influenza, avian
Kawasaki disease
Keloid
Klinefelter's syndrome
Korsakoff's psychosis
Lambert-Eaton myasthenic syndrome
Laryngeal carcinoma
Leishmaniasis
Leprosy
Leptospirosis
Lumbar disc syndrome
Lymphogranuloma venereum
Measles (rubeola)
Meningitis, fungal
Meningocele
Meralgia paresthetica
Metatarsalgia
Milk-Alkali syndrome
Mixed connective tissue disease
Mycosis fungoides
Narcissistic personality disorder
Nephroblastoma
Nocardiosis
Oppositional defiant disorder (ODD)
Osler-Rendu-Weber syndrome
Otosclerosis (otospongiosis)
Paranoid personality disorder
Paraphilic disorders
Paroxysmal cold hemoglobinuria
Paroxysmal nocturnal hemoglobinuria
Patellofemoral pain syndrome
Patent foramen ovale
Pediatric medication errors
Pedophilic disorder
Poliomyelitis
Polypharmacy
Postpoliomyelitis syndrome
Postural orthostatic tachycardia syndrome (POTS)

Premenstrual dysphoric disorder
Primary myelofibrosis
Progressive multifocal leukoencephalopathy
Pronator syndrome
Pure red cell aplasia
Pyoderma gangrenosum
Q fever
Rabies
Radiation exposure
Rectal prolapse
Respiratory syncytial virus
Retinoblastoma
Retroperitoneal fibrosis
Reye's syndrome
Rheumatic fever
Rickets
Rotator cuff disease
Rubella
Schistosomiasis
Severe acute respiratory syndrome
Sheehan's syndrome
Smallpox
Social anxiety disorder
Spina bifida
Sporotrichosis
Sturge-Weber syndrome
Suicide
Syringomyelia
Tabes dorsalis
Tarsal tunnel syndrome
Tetanus
Thromboangiitis obliterans
Thyrotoxic storm
Torticollis
Tracheitis
Trichinosis
Tricuspid regurgitation
Tricuspid stenosis
Tricyclic antidepressant overdose
Trigger finger
Tropical sprue
Tuberous sclerosis
Tularemia
Turner syndrome
Typhoid fever
Varicocele
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 Dietary Fiber
 Dry Eye
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 Elbow Dislocation
 Ensuring Your Child's Safety
 Epilepsy
 Excessive Perspiration
 Exercises and Cardiovascular Health
 Femoral Hernia
 Finger Sprain
 Flu Vaccination
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 Forgetfulness
 Gangrene
 Gastroparesis and Gastric Motility Disorders
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 Groin Strain
 Halitosis
 Hamstring Strain
 Healthy Diet as a Teenager
 Hearing Loss
 Hernia
 High Triglycerides

Hip Pain
 Hydration (for athletes)
 Hypoglycemia in Diabetes
 Ingrown Toenail
 Inguinal Hernia
 Intussusception
 Jellyfish and Other Marine Animals Stings and Bites
 Kegel Exercises
 Knee Sprain
 Knee Swelling
 Lipoma
 Liver Transplantation
 Low Back Pain
 Low Back Strain
 Lumbosacral Radiculopathy
 Microscopic Colitis
 Mitral Valve Disease
 Mouth and Tooth Care
 Multivitamins
 Neck Pain
 Neck Strain
 Night Terrors
 Nutrition (for Athletes)
 Osteoarthritis of the Hip

Patellar Tendinitis
Percutaneous Coronary Intervention
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Phymosis and Paraphymosis
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Pneumoconiosis
Prediabetes
Premature Ventricular Contractions
Probiotics
Providing Your Child Good Nutrition
Puberty
Pyloric Stenosis
Radial Neuropathy

Rectal Cancer
Rotavirus Infections
SARS
Sciatica
Shin Splints
Shoulder Dislocation
Sleep Disorder and Heart Disease
Slipped Disc
Smoke Inhalation
Smoking
Spinal Cord Trauma
Stress Test Used to Predict Heart Attack
Risk

Sudden Infant Death Syndrome
Sun Poisoning
Surgical Site (Surgical Wound) Infections
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Tinea Infections
Tuberculosis
Ulnar Neuropathy
Vaginal Dryness
Vertigo
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Wrist Fracture

SECTION I

Diseases and Disorders