Contents

| List of Tables xv | Getting Ready: The Approach to the Interview 23 |
|---|---|
| Introduction xix | Taking Time for Self-Reflection 23 |
| | Reviewing the Chart 23 |
| CHAPTER 1 An Overview of Physical | Setting Goals for the Interview 23 |
| Examination and History Taking 1 | Reviewing Clinician Behavior and Appearance 24 |
| | Improving the Environment 24 |
| THE HEALTH HISTORY: STRUCTURE | Taking Notes 24 |
| AND PURPOSES 2 | Learning About the Patient: |
| THE COMPREHENSIVE ADULT | The Process of Interviewing 24 |
| HEALTH HISTORY 4 | Greeting the Patient and Establishing Rapport 25 |
| Chief Complaint(s) 4 | Inviting the Patient's Story 26 |
| Present Illness 4 | Establishing the Agenda for the Interview 27 |
| Past History 5 | Expanding and Clarifying the Health History |
| Family History 5 | (The Patient's Perspective) 27 |
| Personal and Social History 6 | Generating and Testing Diagnostic Hypotheses |
| Review of Systems 6 | (The Clinician's Perspective) 28 |
| | Creating a Shared Understanding of the Problem 28 |
| THE PHYSICAL EXAMINATION: | Negotiating a Plan 29 |
| APPROACH AND OVERVIEW 9 | Planning for Follow-Up and Closing 30 |
| The Comprehensive Physical Examination 10 | Facilitating the Patient's Story: The Techniques of |
| General Survey 10 | Skilled Interviewing 30 |
| Vital Signs 10 | Active Listening 31 |
| Skin 10 | Adaptive Questioning 31 |
| HEENT 10 | Nonverbal Communication 32 |
| Neck 10 | Facilitation 32 |
| Back 10 | Echoing 32 |
| Posterior Thorax and Lungs 11 | Empathic Responses 32 |
| Breasts, Axillae, and Epitrochlear Nodes 11 | Validation 33 |
| Anterior Thorax and Lungs 11 | Reassurance 33 |
| Cardiovascular System 11 Abdomen 11 | Summarization 33 |
| Lower Extremities 11 | Highlighting Transitions 33 |
| | Adapting Interviewing Techniques |
| Nervous System 12 Additional Examinations 13 | to Specific Situations 34 |
| | The Silent Patient 34 |
| RECORDING YOUR FINDINGS 13 | The Talkative Patient 34 |
| The Case of Mrs. N 14 | The Anxious Patient 35 |
| LEARNING HISTORY TAKING AND | The Crying Patient 35 |
| PHYSICAL EXAMINATION 19 | The Confusing Patient 35 |
| A A A A A A A A A A A A A A A A A A A | The Angry or Disruptive Patient 36 |
| CHAPTER 2 Interviewing and the | The Patient With a Language Barrier 37 |
| Health History 21 | The Patient With Reading Problems 38 |
| 220tory 21 | The Patient With Impaired Hearing 38 |

The Patient With Impaired Vision 38 The Patient With Limited Intelligence 39 The Poor Historian 39 The Patient With Personal Problems 40 Special Aspects of Interviewing 40 Cultural Competence 41 The Alcohol and Drug History 43 The Sexual History 45 Domestic and Physical Violence 46 The Mental Health History 47 Death and the Dying Patient 47 Sexuality in the Clinician-Patient Relationship 49 Ethical Considerations 49 Interviewing Patients of Different Ages 52 Talking With Children 52 Talking With Adolescents 55 Talking With Aging Patients 56

CHAPTER 3 Beginning the Physical Examination: General Survey and Vital Signs 59

ANATOMY AND PHYSIOLOGY 59

Calculating the BMI 60
Interpreting and Acting on the BMI 61

THE HEALTH HISTORY 62

Changes in Weight 62
Fatigue and Weakness 63
Fever and Chills 64

HEALTH PROMOTION AND COUNSELING 65

Optimal Weight and Nutrition 65 Exercise 65 Blood Pressure and Diet 65

PREVIEW: RECORDING THE PHYSICAL EXAMINATION—THE GENERAL SURVEY AND VITAL SIGNS 66

TECHNIQUES OF EXAMINATION 67

Beginning the Examination: Setting the Stage 67
Approaching the Patient 67
Scope of the Examination: How Complete
Should It Be? 68
Choosing the Examination Sequence, Examining
Position and Handedness 68
Adjusting Lighting and the Environment 70
Promoting the Patient's Comfort 71

THE GENERAL SURVEY 72

X

Apparent State of Health 73 Level of Consciousness 73 Signs of Distress 73 Height and Build 73 Weight 73
Skin Color and Obvious Lesions 73
Dress, Grooming, and Personal Hygiene 73
Facial Expression 74
Odors of the Body and Breath 74
Posture, Gait and Motor Activity 74

THE VITAL SIGNS 75

Blood Pressure 75 Special Problems 79 Heart Rate and Rhythm 80 Respiratory Rate and Rhythm 81 Temperature 81

CHAPTER 4 The Skin 95

ANATOMY AND PHYSIOLOGY 95
Changes with Aging 97

THE HEALTH HISTORY 98

HEALTH PROMOTION AND COUNSELING 98

PREVIEW: RECORDING THE PHYSICAL EXAMINATION—THE SKIN 99

TECHNIQUES OF EXAMINATION 100

Skin 100 Nails 102 Hair 102 Skin Lesions in Context 102

CHAPTER 5 The Head and Neck 115

ANATOMY AND PHYSIOLOGY 115

The Head 115
The Eye 115
The Ear 123
The Nose and Paranasal Sinuses 125
The Mouth and Pharynx 128
The Neck 131
Changes With Aging 134

THE HEALTH HISTORY 136

The Head 136
The Eyes 137
The Ears 138
The Nose and Sinuses 139
The Mouth, Throat, and Neck 140

HEALTH PROMOTION AND COUNSELING 141

PREVIEW: RECORDING THE PHYSICAL EXAMINATION—THE HEAD, EYES, EARS, NOSE, AND THROAT (HEENT) 143

TECHNIQUES OF EXAMINATION 144

CONTENTS

The Head 144 The Hair 144 The Scalp 144 The Skull 144 The Face 144 The Skin 144 The Eyes 144 Visual Acuity 144 Visual Fields by Confrontation 145 Position and Alignment of the Eyes 147 Eyebrows 147 Eyelids 147 Lacrimal Apparatus 147 Conjunctive and Sclera 147 Cornea and Lens 148 --Iris 148 Pupils 148 Extraocular Muscles 149 Ophthalmoscopic Examination 151 The Ears 156 The Auricle 156 Ear Canal and Drum 156 Auditory Acuity 157 Air and Bone Conduction 157 The Nose and Paranasal Sinuses 159 The Mouth and Pharynx 160 The Lips 160 The Oral Mucosa 160 The Gums and Teeth 161 The Roof of the Mouth 161

The Pharynx 162
The Neck 163

CONTENTS

Lymph Nodes 163

The Trachea and the Thyroid Gland 165

The Tongue and the Floor of the Mouth 161

The Carotid Arteries and Jugular Veins 168

Special Techniques 167

For Assessing Prominent Eyes 167

For Nasolacrimal Duct Obstruction 167

For Inspection of the Upper Palpebral Conjunctiva 168

Swinging Flashlight Test 169

Transillumination of the Sinuses 169

CHAPTER 6 The Thorax and Lungs 209

ANATOMY AND PHYSIOLOGY 209

Locating Findings on the Chest 210 Lungs, Fissures, and Lobes 212 Locations on the Chest 214

The Trachea and Major Bronchi 214

The Pleurae 214

Breathing 215

Changes With Aging 216

THE HEALTH HISTORY 216

HEALTH PROMOTION AND COUNSELING 218

PREVIEW: RECORDING THE PHYSICAL EXAMINATION—THE THORAX AND LUNGS 219

TECHNIQUES OF EXAMINATION 220

Initial Survey of Respiration and the Thorax 220

Examination of the Posterior Chest 221

Examination of the Anterior Chest 229

Special Techniques 233

Clinical Assessment of Pulmonary Function 233

Forced Expiratory Time 233

Identification of a Fractured Rib 233

CHAPTER 7 The Cardiovascular System 245

ANATOMY AND PHYSIOLOGY 245

Surface Projections of the Heart and Great Vessels 245

Cardiac Chambers, Valves, and Circulation 247

Events in the Cardiac Cycle 248

The Splitting of Heart Sounds 250

Heart Murmurs 251

Relation of Auscultatory Findings to the

Chest Wall 252

The Conduction System 253

The Heart as a Pump 254

Arterial Pulses and Blood Pressure 255

Jugular Venous Pressure and Pulses 256

Changes With Aging 258

The Apical Impulse and Heart Sounds 258

Cardiac Murmurs 259

Arteries and Blood Pressure 260

THE HEALTH HISTORY 260

HEALTH PROMOTION AND COUNSELING 262

PREVIEW: RECORDING THE PHYSICAL EXAMINATION—THE CARDIOVASCULAR EXAMINATION 265

TECHNIQUES OF EXAMINATION 266

Jugular Venous Pressure and Pulsations 266

The Carotid Pulse 269

Thrills and Bruits 270

The Brachial Artery 270

The Heart 271

A Note on Cardiovascular Assessment 283

xi

Special Techniques 283

Aids to Identify Systolic Murmurs 283

Pulsus Alternans 284

Paradoxical Pulse 285

CHAPTER 8 The Breasts and Axillae 297

ANATOMY AND PHYSIOLOGY 297

Changes With Aging 299

Adulthood 299

Aging 300

Lymphatics 300

THE HEALTH HISTORY 301

HEALTH PROMOTION AND COUNSELING 301

Risk Factors for Breast Cancer 302 Breast Cancer Screening 304

PREVIEW: RECORDING THE PHYSICAL EXAMINATION—BREASTS AND AXILLAE 304

TECHNIQUES OF EXAMINATION 305

The Female Breast 305
The Male Breast 310
The Axillae 310
Special Techniques 311
Assessment of Spontaneous Nipple Discharge 311
Examination of the Mastectomy Patient 312
Instructions for the Breast Self-Examination 312

CHAPTER 9 The Abdomen 317

ANATOMY AND PHYSIOLOGY 317

Changes With Aging 320

THE HEALTH HISTORY 320

The Gastrointestinal Tract 321 The Urinary Tract 327

HEALTH PROMOTION AND COUNSELING 329

PREVIEW: RECORDING THE PHYSICAL EXAMINATION—THE ABDOMEN 331

TECHNIQUES OF EXAMINATION 332

The Abdomen 332
The Liver 337
The Spleen 340
The Kidneys 343
The Bladder 344
The Aorta 344
Special Techniques 345

Assessing Possible Ascites 345
Assessing Possible Appendicitis 347
Assessing Possible Acute Cholecystitis 348

Assessing Ventral Hernias 348 Mass in the Abdominal Wall 349

CHAPTER 10 Male Genitalia and Hernias 367

ANATOMY AND PHYSIOLOGY 367

Lymphatics 368
Anatomy of the Groin 369
Changes With Aging 369

THE HEALTH HISTORY 370

HEALTH PROMOTION AND COUNSELING 371

PREVIEW: RECORDING THE PELVIC EXAMINATION—MALE GENITALIA AND HERNIAS 372

TECHNIQUES OF EXAMINATION 373

The Penis 373
The Scrotum and Its Contents 374
Hernias 375
Special Techniques 376
The Testicular Self-Examination 376

CHAPTER 11 Female Genitalia 383

ANATOMY AND PHYSIOLOGY 383

Lymphatics 385 Changes With Aging 385

THE HEALTH HISTORY 386

Menarche, Menstruation, Menopause 386 Pregnancy 387 Vulvovaginal Symptoms 388 Sexual Activity 388

HEALTH PROMOTION AND COUNSELING 389

The Pap Smear 389 Options for Family Planning 389 STDs and HIV 390 Changes in Menopause 390

PREVIEW: RECORDING THE PELVIC EXAMINATION—FEMALE GENITALIA 390

TECHNIQUES OF EXAMINATION 391

Choosing Equipment 392
Positioning the Patient 393
External Examination 393
Internal Examination 394
Hernias 400
Special Techniques 400

CHAPTER 12 The Pregnant Woman 409

ANATOMY AND PHYSIOLOGY 409

THE HEALTH HISTORY 413

HEALTH PROMOTION AND COUNSELING 414

PREVIEW: RECORDING THE PHYSICAL EXAMINATION—THE PREGNANT WOMAN 416

TECHNIQUES OF EXAMINATION 417

Positioning 417

Equipment 418

General Inspection 418

Vital Signs and Weight 418

Head and Neck 419

Thorax and Lungs 419

Heart 419

Breasts 419

Abdomen 420

Genitalia, Anus, and Rectum 422

Extremities 423

Special Techniques 424

Modified Leopold's Maneuvers 424

Concluding the Visit 426

CHAPTER 13 The Anus, Rectum, and Prostate 427

ANATOMY AND PHYSIOLOGY 427

Changes With Aging 428

THE HEALTH HISTORY 429

HEALTH PROMOTION AND COUNSELING 430

PREVIEW: RECORDING THE PHYSICAL EXAMINATION—THE ANUS, RECTUM, AND PROSTATE 432

TECHNIQUES OF EXAMINATION 433

Male 433

Female 436

CHAPTER 14 The Peripheral Vascular System 441

ANATOMY AND PHYSIOLOGY 441

Arteries 441

Veins 442

The Lymphatic System and Lymph Nodes 444

Fluid Exchange and the Capillary Bed 445

Changes With Aging 446

THE HEALTH HISTORY 446

HEALTH PROMOTION AND COUNSELING 448

PREVIEW: RECORDING THE PHYSICAL EXAMINATION—THE PERIPHERAL VASCULAR SYSTEM 449

TECHNIQUES OF EXAMINATION 450

Arms 450

Legs 451

Special Techniques 457

Evaluating the Arterial Supply to the Hand 457

Postural Color Changes of Chronic Arterial

Insufficiency 458

Mapping Varicose Veins 459

Evaluating the Competency of Venous Valves 459

CHAPTER 15 The Musculoskeletal System 465

ANATOMY AND PHYSIOLOGY 465

Structure and Function of Joints 465

Temporomandibular Joint 467

The Shoulder 469

The Elbow 471

The Wrist and Hands 473

The Spine 475

The Hip 478

The Knee 479

The Ankle and Foot 483

Changes With Aging 484

THE HEALTH HISTORY 484

HEALTH PROMOTION AND COUNSELING 487

PREVIEW: RECORDING THE EXAMINATION— THE MUSCULOSKELETAL SYSTEM 489

TECHNIQUES OF EXAMINATION 490

The Temporomandibular Joint (TMJ) 491

The Shoulder 492

The Elbow 496

The Wrist and Hand 497

The Spine 501

The Hip 506

The Knee and Lower Leg 511

The Ankle and Foot 517

Special Techniques 519

For the Carpal Tunnel Syndrome 519

For Low Back Pain With Radiation Into the Leg 520

Measuring the Length of Legs 520

Describing Limited Motion of a Joint 521

CHAPTER 16 The Nervous System 535

ANATOMY AND PHYSIOLOGY 535

Central Nervous System 536

The Brain 536

The Spinal Cord 537

Peripheral Nervous System 538

The Cranial Nerves 538

The Peripheral Nerves 538

CONTENTS

Spinal Reflexes: The Deep Tendon Response 540

Motor Pathways 541 Sensory Pathways 542 Changes With Aging 547

THE HEALTH HISTORY 548

HEALTH PROMOTION AND COUNSELING 551

PREVIEW: RECORDING THE EXAMINATION— THE NERVOUS SYSTEM 554

TECHNIQUES OF EXAMINATION 555

Mental Status 556

Appearance and Behavior 558

Speech and Language 559

Mood 560

Thought and Perceptions 561

Cognitive Functions 563

Higher Cognitive Functions 565

The Cranial Nerves 567

The Motor System 571

The Sensory System 583

Deep Tendon Reflexes 586

Special Techniques 592

Mini-Mental State Examination (MMSE) 592

Asterixis 592

Winging of the Scapula 593

Meningeal Signs 593

Anal Reflex 594

The Stuporous or Comatose Patient 594

CHAPTER 17 Assessing Children: Infancy Through Adolescence 623

CHILD DEVELOPMENT 625

Key Principles 625

Infancy: The First Year of Life 626

Early Childhood: 1 Through 4 Years 628

Middle Childhood: 5 Through 10 Years 630

Adolescence: 11 Through 20 Years 631

HEALTH PROMOTION AND COUNSELING 634

APPROACH TO THE EXAMINATION OF CHILDREN AT DIFFERENT AGES 636

Sequence of the Examination 638

Assessing the Newborn 639

Assessing the Infant 645

Assessing Early Childhood 649

Assessing Middle Childhood 652 Assessing the Adolescent 653

TECHNIQUES OF EXAMINATION 655

General Survey 655

Vital Signs 658

The Skin 663

The Head 666

The Neck 670

The Eve 672

The Ear 676

The Nose and Paranasal Sinuses 680

The Mouth and Pharynx 681

The Thorax and Lungs 686

The Heart 690

The Breasts 699

The Abdomen 700

Male Genitalia 704

Female Genitalia 708

The Rectal Examination 715

The Musculoskeletal System 715

The Nervous System 726

CHAPTER 18 Clinical Reasoning, Assessment, and Plan 783

Assessment and Plan: The Process of

Clinical Reasoning 783

The Case of Mrs. N: Assessment and Plan 787

Approaching the Challenges of Clinical Data 789

Clustering Data into Single Versus Multiple

Problems 789

Sifting Through an Extensive Array of Data 790

Assessing the Quality of the Data 790

Displaying Clinical Data 792

Building Your Case: The Interplay of Clinical

Reasoning and Assessment of Clinical Data 794

Organizing the Patient Record 795

Generating the Problem List 798

Writing the Progress Note 799

Clinical Assessment: The Journey to

Excellence 800

APPENDIX: PREVALENCE AND PREDICTIVE VALUE 801

BIBLIOGRAPHY 803

INDEX 825

XIV CONTENTS