Hartman's Medical Assisting

The Basics

Hartman Publishing, Inc.



Credits

Managing Editor

Susan Alvare Hedman

Developmental Editor

Kristin Calderon

Designer

Kirsten Browne

Production

Elena Reznikova

Illustration

Tracy Kopsachilis, Tess Marhofer, and Tina Pavlatos

Photography

Matt Pence, Pat Berrett, Art Clifton, Dick Ruddy, and Liz Hassett

Proofreaders

Sapna Desai Rachel Santon Jacqui Scherrer

Editorial Assistant

Angela Storey

Sales/Marketing

Deborah Rinker-Wildey Kendra Robertson Erika Walker Col Foley

Customer Service

Fran Desmond Thomas Noble Brian Fejer Hank Bullis Della Torres

Information Technology

Eliza Martin

Warehouse Coordinator

Chris Midyette

Copyright Information

©2023 by Hartman Publishing, Inc. 1313 Iron Ave SW Albuquerque, New Mexico 87102

(505) 291-1274

web: hartmanonline.com

email: orders@hartmanonline.com

Twitter: @HartmanPub

All rights reserved. No part of this book may be reproduced, in any form or by any means, without permission in writing from the publisher.

ISBN 978-1-60425-148-7

PRINTED IN CANADA

Notice to Readers

Though the guidelines and procedures contained in this text are based on consultations with healthcare professionals, they should not be considered absolute recommendations. The instructor and readers should follow employer, local, state, and federal guidelines concerning healthcare practices. These guidelines change, and it is the reader's responsibility to be aware of these changes and of the policies and procedures of their healthcare facility.

The publisher, author, editors, and reviewers cannot accept any responsibility for errors or omissions or for any consequences from application of the information in this book and make no warranty, express or implied, with respect to the contents of the book. The publisher does not warrant or guarantee any of the products described herein or perform any analysis in connection with any of the product information contained herein.

Gender Usage

This textbook uses gender pronouns interchangeably to denote healthcare team members and patients.

Special Thanks

A very warm thank you goes to our insightful reviewers, listed in alphabetical order:

- · Priya Abraham, MD, RMA
- · Melissa H. Culpepper, MSN, RN
- Connie W. DeFillippo, BSN, RN
- · Michele Knorpp, LVN
- Renea Mayville, MSN, RN, APRN, PMHNP-BC
- · Letisha Rice, BS, LPN, CPI
- Zia Rivera-Clarkson, MBA, CPC, CPC-I, EHRC
- Susan Steck, MEd, BSN, RN

We are very appreciative of the many sources who shared their informative images with us:

- 3N
- American Academy of Dermatology
- Jessica Balladares and SFCC
- Becton, Dickinson, and Company
- Benchmark Scientific
- Burton Medical
- Centers for Disease Control and Prevention
- Centers for Medicare & Medicaid Services
- Detecto
- Dreamstime
- Dynarex
- EHR Go
- Exergen Corporation
- GF Health Products, Inc.

- Globe Scientific, Inc.
- Greiner Bio-One
- Hill-Rom Services, Inc.
- Hollister Incorporated
- Lupin Pharmaceuticals, Inc.
- Dr. Jere Mammino, DO
- MarketLab, Inc.
- McKesson Medical-Surgical
- Medline Industries, LP
- Nova Biomedical
- Nova Medical Products
- Occupational Health and Safety Administration
- RG Medical Diagnostics of Wixom, MI
- Royal Philips
- Tabbies
- True Health New Mexico
- ZOLL Medical Corporation

Contents	age	Learning Objective	Page
Section I FOUNDATIONS		7. Explain objective and subjective information and describe how to observe and report accurately	35
1 The Role of the Medical Assista	nt	8. Explain how to communicate with other healthcare workers	36
Explain the medical assistant's role	1	4 Psychology and Human Noods	
Describe healthcare settings where medical assistants work	2	4 Psychology and Human Needs and Development	
3. Identify members of the healthcare team	3	Identify basic human needs and describe holistic care	38
4. Understand delegation and scope of practice	5	2. Describe the stages of human growth and development and identify common disorders for	
5. Define professionalism and list examples of professional behavior	5	each stage	40
6. Describe the certification process	6	3. Explain developmental disabilities	44
2 Legal and Ethical Issues		 Identify seven characteristics of mental health ar explain the connection between mental and physics wellness 	
Define the terms <i>law</i> and <i>ethics</i> and list examples of legal and ethical behavior	9	Define stress and stressors and discuss the psychological effects of stress	47
2. Explain patients' rights and why they are important	10	6. Identify and define common defense mechanisms	48
3. Explain HIPAA and discuss ways to protect patients' privacy	12	List the signs of substance abuse and discuss oth addiction disorders	her 48
Discuss common legal concepts and responsibilities in health care	14	8. Describe causes and types of mental health disorders	49
5. Discuss <i>consent</i> as it applies to health care	15	Discuss the psychological effects of chronic and serious illness	51
6. Understand mandatory reporting requirements	17	10. Understand end-of-life concerns and the stages	······
7. Describe incident reporting	20	of grief	52
3 Communication and Diversity		5 Infection Prevention and Contro	ol
1. Define communication	22	Define infection prevention and discuss types	
2. Explain verbal and nonverbal communication	23	of infections	55
3. Identify barriers to communication	24	2. Describe the chain of infection	56
4. Define <i>diversity</i> and understand the importance	0.5	3. Explain Standard Precautions	58
of responding to diversity without bias	25	Explain hand hygiene and identify when to wash hands	60
5. List guidelines for communicating with patients	28	5. Discuss the use of personal protective	
6. List ways to make communication accurate and explain how to develop effective interpersonal		equipment (PPE)	62
relationships	34	6. Explain Transmission-Based Precautions	66

Learning Objective	Page	Learning Objective	Page
7. Define <i>bloodborne pathogens</i> and describe two major bloodborne diseases	69	 Discuss guidelines for written communication Describe the process of legally terminating a 	103
8. Explain OSHA's Bloodborne Pathogens Standar and the Needlestick Safety and Prevention Act	^r d 70	provider-patient relationship	103
9. List guidelines for handling equipment and specimens	71	8 Medical Record Management	105
10. List employer and employee responsibilities fo infection prevention	72	Understand EMR, EHR, and paper filing systems Describe patient portals for electronic records access	103
6 Safety, Emergency Care, and		3. Discuss legal issues related to patient records	108
Disaster Preparation		4. Describe scheduling, patient record, and billing software functions	110
Demonstrate how to recognize and respond to medical emergencies	74	9 Medical Insurance and Coding	
2. Demonstrate knowledge of first aid procedures	75	1. Explain the basics of health insurance	113
3. Discuss workplace safety and identify OSHA's categories of common hazards	85	2. Discuss private insurance programs	116
Describe regulations related to safety practices		3. Describe government-funded insurance programs	118
and explain the Safety Data Sheet	86	4. Explain coordination of benefits	121
5. Explain the principles of body mechanics	87	5. Describe the insurance claims process	121
6. Describe guidelines for responding to common hazards and disasters	89	6. Discuss the need for preauthorization for certain medical treatments	123
Section II		7. Understand the purpose of medical coding systems	124
ADMINISTRATIVE MEDICAL		8. Discuss the ICD coding system	124
ASSISTING		9. Discuss the CPT coding system	126
7.00.01.11.0		10. Discuss the HCPCS coding system	128
7 Patient Scheduling, Reception,		11. Discuss the importance of accuracy in coding	129
and Related Communication		10 Billing, Collections, and	
Describe approaches to patient scheduling	96	Accounting	
2. Explain the process of scheduling a new patient	98	Discuss physician fees and patient billing	131
3. Explain the process of scheduling returning patients	98	Describe patient accounts and statements	133
4. Discuss the management of schedule changes	99	3. Understand the collection process and the	
5. Discuss the patient check-in process	100	life cycle of a patient bill	135
6. Describe the patient checkout process	101	4. Explain accounts payable and receivable and	120
7. Describe the management of referrals to other	••••••	practice assets and liabilities	138
medical offices or facilities	101	5. Discuss bank accounts and check handling	139
8. List guidelines for communicating with dissatisfied or angry patients	102	6. Describe supply purchasing and the management of petty cash	141

Learning Objective	Page	Learning Objective	Page
11 Office Equipment and Supplie	S	 Describe how to position and drape patients for examination 	185
Describe computer hardware and associated equipment	143	 Describe preparations for surgical procedures in an outpatient setting 	186
Discuss other common office equipment Understand equipment maintenance	145	13. Describe the medical assistant's role during outpatient surgical procedures	193
4. Discuss office and medical supplies inventory	147	14. Understand how tests and diagnostic procedure are ordered and how results are reported	es
Section III CLINICAL MEDICAL ASSISTING		14 The Integumentary System and Related Care	
12 Introduction to Medical Terminology and Body Systems		Describe the structure and function of the integumentary system	199
Understand how to use medical terminology	150	Discuss lifespan changes to the integumentary system	200
2. Identify common roots, prefixes, and suffixes3. Identify common abbreviations	151 151	List common chronic and acute conditions of the integumentary system	200
Describe anatomical terms of location and direction	152	4. Describe examinations and procedures related to the integumentary system	207
5. Discuss cells, tissues, organs, and body systems	155	5. Discuss patient education related to the integumentary system	211
13 Basic Clinical Skills		15 The Musculoskeletal System and Related Care	
Describe the preparation of the examination room and equipment	158	Describe the structure and function of the musculoskeletal system	214
List forms of examination Discuss documentation and professional	159	Discuss lifespan changes to the musculoskeletal system	••••••
communication among the healthcare team 4. Describe patient intake	161	List common chronic and acute conditions of the musculoskeletal system	217
5. Explain the importance of monitoring vital signs	163	4. Describe examinations and procedures related to the musculoskeletal system	226
6. List guidelines for measuring body temperature and observing skin condition	164	5. Discuss patient education related to the musculoskeletal system	235
7. List guidelines for measuring pulse, respirations and oxygen saturation	, 172	16 The Nervous System and Sens	e
8. Explain guidelines for measuring blood pressure	175	Organs and Related Care	
9. Describe guidelines for measuring height, weight, and infant head circumference	179	Describe the structure and function of the nervous system and sense organs	237
10. Explain methods for measuring and reporting pain levels	183	Discuss lifespan changes to the nervous system and sense organs	242

Learning Objective	Page	Learning Objective	Page
3. List common chronic and acute conditions of the nervous system and sense organs	ne 243	4. Describe examinations and procedures related to the urinary system	312
4. Describe examinations and procedures related to the nervous system and sense organs	253	5. Discuss patient education related to the urinary system	318
5. Discuss patient education related to the nervou system and sense organs	s 259	20 The Gastrointestinal System and Related Care	
17 The Circulatory System and Related Care		Describe the structure and function of the gastrointestinal system	322
Describe the structure and function of the circulatory system	263	Discuss lifespan changes to the gastrointestinal system	325
2. Discuss lifespan changes to the circulatory system	272	3. List common chronic and acute conditions of the gastrointestinal system	326
3. List common chronic and acute conditions of the circulatory system	273	4. Describe examinations and procedures related to the gastrointestinal system	333
4. Describe examinations and procedures related to the circulatory system	279	5. Discuss patient education related to the gastrointestinal system	336
5. Discuss patient education related to the circulatory system	280	21 The Endocrine System and Related Care	
18 The Respiratory System and Related Care		Describe the structure and function of the endocrine system	342
Describe the structure and function of the respiratory system	284	Discuss lifespan changes to the endocrine system	345
2. Discuss lifespan changes to the respiratory system	286	3. List common chronic and acute conditions of the endocrine system	346
3. List common chronic and acute conditions of the respiratory system	287	4. Describe examinations and procedures related to the endocrine system	350
4. Describe examinations and procedures related to the respiratory system	294	5. Discuss patient education related to the endocrine system	352
5. Discuss patient education related to the respiratory system	300	22 The Reproductive System and Related Care	
19 The Urinary System and Related Care		Describe the structure and function of the reproductive system	355
Describe the structure and function of the urinary system	304	2. Discuss lifespan changes to the reproductive system	358
2. Discuss lifespan changes to the urinary system	305	3. Discuss pregnancy, childbirth, and common disorders of pregnancy	359
3. List common chronic and acute conditions of the urinary system	306	,	

Learning Objective	Page	Learning Objective	Page
4. List common chronic and acute conditions of the reproductive system	366	Identify guidelines for processing and transporting specimens	419
5. Describe examinations and procedures related to the reproductive system	370	10. Describe guidelines for performing point-of-care tests on capillary blood	422
6. Discuss patient education related to the reproductive system	375	25 Electrocardiograms (EKGs) and Related Tests	
23 The Immune and Lymphatic Systems and Related Care		 Describe the electrical activity of the heart and how it is recorded by EKG machines 	424
Describe the structure and function of the immune and lymphatic systems	380	Understand EKG waveforms and identify normal features in an EKG	425
Discuss lifespan changes to the immune and lymphatic systems	382	Describe the types of EKG-based tests and how each is used	427
3. List common chronic and acute conditions of the immune and lymphatic systems	382	4. Describe EKG leads and electrode placement 5. Demonstrate the performance of the 12-lead	428
4. Describe examinations and procedures related to the immune and lymphatic systems	388	EKG test 6. Demonstrate the performance of a stress test	433
5. Discuss patient education related to the immune and lymphatic systems	391	7. Discuss Holter and other ambulatory monitoring	438
24 Phlebotomy and Common		8. Demonstrate solutions to different types of EKG artifact	440
Blood Tests		9. Identify normal and abnormal heart rhythms	443
Discuss venipuncture and capillary puncture and identify common blood tests	394	 Identify potentially lethal EKG changes and describe emergency response 	445
Describe the importance of avoiding errors before and during specimen collection	396	26 Pharmacology and Medication	
3. Identify equipment used to collect blood specimens	397	Administration	
4. Identify additives to blood specimens and list		1. Define pharmacology and related terms	449
the order in which collection tubes must be filled (order of draw)	401	Describe drug classes and controlled medications	449
5. Understand the importance of safety during the collection of blood specimens	404	Understand how medications work in the body	451
6. Identify appropriate sites for venipuncture and capillary puncture	404	Identify common medication forms and routes of administration	454
7. Describe site preparation and proper needle/lancet placement	408	Discuss measurement of medications and dosage calculation	458
8. Describe procedures for routine venipuncture and capillary puncture	411	6. Discuss safe storage, handling, and disposal of medications	460

Page
460
461
471
479
······································
486
516
518

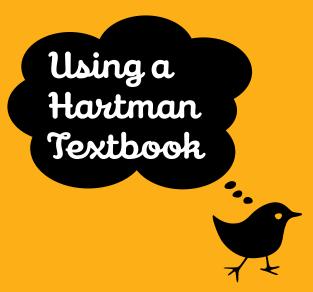
Procedure	Page
Procedure	Puge

Procedures

Washing hands (hand hygiene)	61
Putting on (donning) and removing (doffing) a gown	62
Putting on (donning) a mask and goggles	63
Putting on (donning) gloves	64
Removing (doffing) gloves	65
Donning a full set of PPE	65
Doffing a full set of PPE	65
Performing abdominal thrusts for the conscious person	76
Responding to shock	77
Responding to a myocardial infarction	78
Controlling bleeding	79
Treating burns	80
Responding to fainting	81
Responding to nosebleed	81
Responding to a seizure	83
Responding to vomiting	84
Measuring and recording an oral temperature	166
Measuring and recording a rectal temperature	168
Measuring and recording a tympanic temperature	169
Measuring and recording an axillary temperature	170
Counting and recording apical pulse	173
Counting and recording radial pulse and counting and recording respirations	174
Measuring and recording a pulse oximetry reading	175
Measuring and recording blood pressure manually	177
Measuring and recording blood pressure electronically	178
Measuring and recording weight of an ambulatory patient	179
Measuring and recording weight of an infant	180

Procedure	Page
Measuring and recording height of an ambulatory patient	181
Sanitizing and disinfecting the examination room and instruments	187
Performing sterile wrapping	187
Performing a sterile hand scrub	190
Donning sterile gloves	190
Preparing the sterile field	193
Preparing the skin for a surgical procedure	194
Applying a sterile dressing	196
Removing sutures or staples	208
Assisting with ambulation for a patient using a	
cane, walker, or crutches	230
Assisting with cast application	233
Assisting with lumbar puncture	255
Performing vision screening exams	256
Testing hearing acuity with an audiometer	258
Irrigating eyes or ears	258
Performing pulmonary function tests	295
Measuring peak expiratory flow rate using a peak flow meter	296
Obtaining a throat culture	299
Collecting a sputum specimen	300
Testing urine with reagent strips	314
Collecting a clean-catch (midstream) urine specimen	315
Performing fecal occult blood testing	334
Assisting with a pelvic exam and Pap test	372
Performing allergy scratch testing	389
Performing routine venipuncture with	••••••••
multisample needle and evacuated tube(s)	411
Collecting a blood specimen using a syringe and transfer device	414
Performing routine capillary puncture	416
Obtaining a 12-lead EKG	435
Conducting an exercise stress test	437
Applying an ambulatory monitor	439

Administering oral medications	462
Administering buccal and sublingual medications	463
Administering medications by metered dose inhaler	463
Administering medications by nebulizer	465
Administering nasal medications	466
Administering ophthalmic (eye) medications	467
Administering otic (ear) medications	468
Administering topical medications	469
Administering transdermal (patch) medications	469
Administering a rectal suppository	470
Administering medications by the vaginal route	471
Reconstituting a powdered medication	473
Preparing injection medications in vials	473
Administering intradermal medications	475
Administering subcutaneous medications	476
Administering intramuscular medications	478



Understanding how this book is organized and what its special features are will help you make the most of this resource!

We have assigned each chapter its own colored tab. Each colored tab contains the chapter number and title, and is located on the side of every page.



1. Explain the basics of health insurance

Everything in this book, the student workbook, and the instructor's teaching material is organized around learning objectives. A learning objective (LO) is a very specific piece of knowledge or a very specific skill. After reading the text, you will know you have mastered the material if you can do what the learning objective says.

person-centered care

Bold key terms are located throughout the text, followed by their definitions. They are also listed in the glossary at the back of this book.

Applying a sterile dressing

All **care procedures** are highlighted by the same black bar for easy recognition.

Guidelines: Hearing Impairment

Guidelines lists are colored green for easy reference.

Case Study

In sections III and IV, **orange Case Study boxes** demonstrate real-life application of each chapter's learning objectives.

Connected Care

Listen

One of the most important things a mediromote patients' **Gray Connected Care boxes** relate to providing care that promotes patient dignity.

Skills Focus

Respiratory Hygiene

The CDC Hished special infection pre

Blue Skills Focus boxes provide practical information that will help students understand the job of the medical assistant.