# **CONTENTS**

#### **ENVIRONMENT OF HEALTH INFORMATION** UNIT I

### CHAPTER 1 Health Care Delivery Systems, 1

Nadinia Davis and Melissa LaCour

Health Care Professionals, 2

Physicians, 2

Nurses, 5

Allied Health Professionals, 7

Professional Organizations, 7

Health Information Management, 8

Interdisciplinary Collaboration, 11

Comparison of Facilities, 12

Types of Facilities, 13

Facility Size, 16

Ownership, 19

Tax Status, 19

Patient Population, 20

Services, 20

Continuity of Care, 20

Modern Models, 21

Legal and Regulatory Environment, 23

Federal, 23

State, 25

Local, 26

Accreditation, 26

Professional Standards, 29

### CHAPTER 2 Collecting Health Care Data, 35

Nadinia Davis

Basic Concepts, 36

Health, 36

Data, 36

Information, 36

Health Data, 38

Health Information, 39

Key Data Categories, 40

Content of a Health Record, 41

Medical Decision Making, 45

Subjective, 46

Objective, 46

Assessment, 46

Plan, 47

Outcome, 47

Describing Data, 48

Building a Database, 49

Master Patient Index, 50

Organization of Data Elements in a Health Record, 52

Data Collection, 52

Data Quality, 58

Organization of a Paper-Based Health Record, 58

Advantages and Disadvantages, 61

Electronic Health Record, 62

Electronic Data Collection, 63

Quality Elements, 64

Data Sets, 66

Defined Data Sets, 67



### CHAPTER 3 Electronic Health Records, 73

Nadinia Davis

The Evolution of the Electronic Health Record, 74

Limitations of the Paper Record, 74

The Hybrid Record, 74

The Electronic Health Record, 78

Paving the Way to an Electronic Health Record, 83

Government Sector, 84

Meaningful Use, 88

Private Sector, 90
Standardization, 90
Accessibility, 91
Challenges, 92
Data Exchange and Interoperability, 93
The Future of the Electronic Health Record, 94
Career Opportunities, 95

# UNIT II CONTENT, STRUCTURE, AND PROCESSING OF HEALTH INFORMATION

### CHAPTER 4 Content of the Health Record, 99

Nadinia Davis and Melissa LaCour

Clinical Flow of Data, 100
The Order to Admit, 100
Initial Assessment, 105
Plan of Care, 105
Discharge, 106
Clinical Data, 106
Physicians, 106
Nurses, 115

Laboratory Data, 117 Radiology Data, 118 Special Records, 118 Discharge Data Set, 121

### CHAPTER 5 Health Information Processing, 125

Nadinia Davis

Data Quality, 126
Timeliness, 126
Completeness, 127
Controls, 127
Postdischarge Processing, 132
Identification of Records to Process, 133
Chart Assembly, 135
Quantitative Analysis, 136
Coding, 141
Retrieval, 142
Master Patient Index, 143
Abstracting, 145
Tracking Records While Processing, 147

Electronic Health Record Management, 148
Electronic Health Record Processing Issues, 148
Record Assembly, 148
Scanning and Indexing, 149
Record Analysis, 150
Coding, 151
Abstracting, 151
Storage and Retention, 152
Transcription, 152
Release of Information, 152
Workflow, 153
Other Health Information Management Roles, 153

CHAPTER 6 Code Sets, 168

Marion Gentul

Coding, 169
Nomenclature and Classification, 171
General Purpose Code Sets, 172
Historical Code Sets, 172
ICD-10-CM, 173

ICD-10-PCS, 175 HCPCS/CPT-4, 176 Special Purpose Classifications and Code Sets, 177 SNOMED-CT, 177 ICD-0-3, 179 DSM-IV, DSM-IV-TR, and DSM-5, 181 National Drug Codes, 182 Current Dental Terminology Codes, 184 Uses for Coded Clinical Data, 184 Case Mix Analysis, 184 Reporting, 184 Comparative Analysis, 184 Reimbursement, 184

### CHAPTER 7 Reimbursement, 189

Marion Gentul

#### **PAYING FOR HEALTH CARE, 190**

Changing Forms of Reimbursement, 190 Insurance, 191 Types of Health Insurance, 195 Clinical Oversight, 199 Entitlements, 202

#### **REIMBURSEMENT METHODOLOGIES, 205**

Fee for Service, 206 Charges, 206 Discounted Fee for Service, 206 Prospective Payment, 207 Capitation, 207 Comparison of Reimbursement Methods, 208 Prospective Payment Systems, 209 History of Diagnosis-Related Groups and Impact on Health Information Management and the Coding Function, 210 Diagnosis-Related Group Assignment, 211

Ambulatory Payment Classification, 220 Payment Denials and Claim Rejections, 221 Additional Prospective Payment Systems, 222

#### **REVENUE CYCLE MANAGEMENT. 225**

Patient Financial Services, 225 Chargemaster (Charge Description Master), 226 Charge Capture, 226 The Uniform Bill, 227 CMS-1500, 232 Claim Rejections, 232 Claim Denials, 234 Error Correction, 234 Collection, 234 Impact of Coding on Reimbursement, 235 Coding Quality, 235 Regulatory Issues, 235 Coding Compliance, 236

### CHAPTER 8 Health Information Management Issues in Other Care Settings, 241

Nadinia Davis

#### **AMBULATORY CARE, 242**

Physicians' Offices, 243 Settings, 243 Services, 245 Care Providers, 246 Data Collection Issues, 246 Data Sets, 248 Licensure and Accreditation, 248 **Emergency Department, 250** Settings, 250 Services, 251 Care Providers, 251 Data Collection Issues, 251 Data Sets. 251

Radiology and Laboratory Services, 254 Settings, 254 Services, 254 Care Providers, 254 Data Collection Issues, 255 Licensure and Accreditation, 255

Licensure and Accreditation, 251

Ambulatory Surgery, 255 Length of Stay, 256 Settings, 256 Services, 256 Care Providers, 256 Data Collection Issues, 256 Data Sets, 256 Licensure and Accreditation, 256

#### OTHER INPATIENT HEALTH CARE SETTINGS, 257

Long-Term Care, 257 Length of Stay, 257 Settings, 257 Services, 259 Care Providers, 259 Data Collection Issues, 260 Data Sets, 260 Licensure and Accreditation, 260 Behavioral Health Facilities, 261 Length of Stay, 261 Settings, 261

Behavioral Health Services, 261
Drug and Alcohol Rehabilitation, 261
Care Providers, 261
Data Collection Issues, 262
Data Sets, 262
Licensure and Accreditation, 263

Licensure and Accreditation, 263
Rehabilitation Facilities, 263
Length of Stay, 263
Settings, 263
Services, 263
Care Providers, 264
Data Collection Issues, 264
Data Sets, 265
Licensure and Accreditation, 265

Hospice, 265
Length of Stay, 265
Services, 266
Care Providers, 266
Data Collection Issues, 266
Licensure and Accreditation, 266

#### **OTHER SPECIALTY CARE, 267**

Home Health Care, 268
Settings, 268
Services, 268
Care Providers, 268
Data Collection Issues, 268
Data Sets, 270
Licensure and Accreditation, 270

### UNIT III MAINTENANCE AND ANALYSIS OF HEALTH INFORMATION

### CHAPTER 9 Managing Health Data, 273

Melissa LaCour

Uses of Health Information, 274

Improving Patient Care, 274

Support and Collection of Reimbursement, 274

Licensure, Accreditation, and Certification, 275

Administration, 277

Prevalence and Incidence of Mortality and

Morbidity, 277

National Policy and Legislation, 277

Community Awareness of Health Care Issues, 279

Litigation, 280

Education, 280

Research, 280

Managed Care, 281

Marketing, 281

Monitoring the Quality of Health Information, 283

Data Governance, 283

Data Quality Characteristics, 283

Quality Assurance, 285

Information Governance, 286

Record Storage Issues, 287

Master Patient Index, 287

Patient Financial Services, 290

Paper Record Storage Methods, 290

Offsite Storage, 296

Chart Locator Systems, 297

Security of Health Information, 302

Disaster Planning, 302

Theft and Tampering, 304

Destruction of Health Information, 305

External Access to the EHR, 306

Record Retention, 307

Information Systems, 309

Hardware and Software, 310

Storage, 310

Scanned Imaging and Electronic Storage, 312

Cloud Computing, 313

System Development Life Cycle, 314

### CHAPTER 10 Statistics, 318

Nadinia Davis

Organized Collection of Data, 319

Primary and Secondary Data, 319

Creation of a Database, 321

Data Review and Abstracting, 321

Data Quality Check, 322

Data Retrieval, 327

Retrieval of Aggregate Data, 327

Retrieving Data, 329

Optimal Source of Data, 329

Indices, 330

Reporting of Data, 333

Reporting to Individual Departments, 333

Reporting to Outside Agencies, 333

Statistical Analysis of Patient Information, 333

Analysis and Interpretation, 334

Types of Data, 334

Measures of Central Tendency, 341 Measures of Frequency, 344 Measures of Variance, 347 Presentation, 352 Line Graph, 352 Bar Graph, 352 Histogram, 355 Pie Chart, 355

Routine Institutional Statistics, 356

Admissions, 356 Discharges, 356 Length of Stay, 357

Average Length of Stay, 359

Transfers, 360 Census, 361

Bed Occupancy Rate, 365

Hospital Rates and Percentages, 365

Registries, 367

Tumor or Cancer Registry, 367

Trauma Registry, 368 Other Registries, 368 Vital Statistics, 368

### CHAPTER 11 Quality and Performance Improvement, 371

Melissa LaCour

The Quality of Health Care, 372 Quality Management Theories, 373

Deming, 373 Juran, 374 Crosby, 374 Donabedian, 374

History and Evolution of Quality in Health Care, 375

Medical Education, 377

Standardization and Accreditation, 377 Medicare and Medicaid's Hospital Quality Initiative, 380

Performance Improvement, 384

Meetings, 385

Plan, Do, Check, and Act Method, 385

Lean, 388

Six Sigma, 388

Benchmarking, 389

Tools to Improve Performance, 390 Health Care Facility Committees, 397 Medical Staff Committees, 397

Health Information Management Committee, 398

Infection Control Committee, 398

Safety Committee, 398

Health Information in Quality Activities, 399

Quantitative Analysis, 399 Qualitative Analysis, 399 Clinical Pathways, 403 Utilization Review, 403 Case Management, 403 Risk Management, 404

#### LEGAL AND SUPERVISORY ISSUES IN HEALTH INFORMATION UNIT IV

### CHAPTER 12 Confidentiality and Compliance, 410

Melissa LaCour

Confidentiality, 411

Definition, 411

Legal Foundation, 411

Scope, 411 Legislation, 413

Health Insurance Portability and Accountability

Act, 413

Privacy Regulations, 414

Protected Health Information, 414 Uses and Disclosures, 415

Notice of Privacy Practices, 416

Patient Rights, 416

HITECH Expansion of HIPAA, 419

Access, 421

Continuing Patient Care, 421

Reimbursement, 422

Health Care Operations, 422

Litigation, 422 Consent, 428

Informed Consent, 428

Admission, 428

Medical Procedures, 428

Release of Information, 431

Required Disclosures, 431

Permitted Disclosures, 431 Authorized Disclosures, 431

Defective Authorizations, 432

Exceptions, 432

Special Consents, 433

Preparing a Record for Release, 434

Validation and Tracking, 434

Retrieval, 435

Reproduction, 435 Certification, 435 Compensation, 435 Distribution, 435 Internal Requests for Information, 436 Sensitive Records, 437 Employee Patients, 437 Legal Files, 437

Federal, Corporate, and Facility Compliance, 437 Licensure, 437 Accreditation, 438 Compliance, 439 Professional Standards, 439

### CHAPTER 13 HIM Department Management, 443

Melissa LaCour and Nadinia Davis

Human Resources, 444 Classification of Employees by Hours Worked, 444 Legal Aspects, 446 Organization Charts, 447 Facility Organization, 447 Delegation, 449 HIM Department Organization, 450 Interdepartmental Relationships, 452 HIM Department Workflow, 453 Workload and Productivity, 453 Workflow and Process Monitors, 456 Resource Allocation, 456

Prioritization of Department Functions, 457 Outcome Measures and Monitoring, 457 Evaluation of Department Operations and Services, 457

Postdischarge Processing, 458 Concurrent Processing, 458 Electronic Record Processing, 459 Department Planning, 460

Mission, 460 Vision, 461 Goals and Objectives, 461

Planning for EHR Migration and Implementation, 462

Accounting Overview, 464 **Budgeting Overview, 465** Strategic Budget, 465 Capital Budget, 465 Operational Budget, 466 Variance, 467

Department Policies and Procedures, 468 What are Policies and Procedures? 468

Corporate Compliance, 471 Customer Satisfaction, 471 Health Information Personnel, 472

Job Descriptions, 472 Job Analysis, 474

Performance Standards, 475 Evaluating Productivity, 476 Employee Evaluations, 477 Hiring HIM Personnel, 479

Department Equipment and Supplies, 485

Supplies, 486

Monitoring Use of Department Resources, 487 Ergonomics, 487

## CHAPTER 14 Training and Development, 492

Melissa LaCour

Orientation, 493

Organization-Wide Orientation, 493 Health Information Management Department

Orientation, 496 Clinical Staff Orientation, 497

Physician Orientation, 498

Training and Development, 499

Planning a Training Session, 499 Calendar of Education, 501

Inservice Education, 503

Educating the Public, 503 Continuing Education, 504

Communication, 507

Employee-to-Employee Communication, 508 Health Information Management Department and Physicians, 508

Health Information Management Department and Outside Agencies or Parties, 508

Written Communication, 508

Department Meetings, 511

Agenda, 511 Meeting, 512

Minutes, 512

Meeting Records, 512

Work Teams, 514 Diversity, 514

Leadership, 515

Appendix A Sample Paper Records, 519

Appendix B Electronic Documentation, 548

Appendix C Using Microsoft Excel to Perform Calculations, 558

Index, 565