

Preparing for the American Board
of Pathology (ABPath)
Examination of Fundamental
Knowledge and Skills

Management and Informatics

Content Specifications



Overview:

General Management and Informatics Content Specifications

This guide outlines the content that may appear predominantly on the American Board of Pathology Primary certification exams. It provides a framework based on the knowledge and skills typically covered in residency training, but also discloses more advanced topics (i.e., advanced practitioner) for individuals who would like further topics to study in this area.

Key to Designations:

C = Core/Foundational Knowledge

AR = Advanced Resident Knowledge

F = Fellow/Advanced Practitioner Knowledge

The information on the Primary exams related to management and informatics assesses the knowledge, judgment, skills, and abilities that are expected of a graduating resident. Subspecialty-specific material is included in the subspecialty content specifications. Candidates should use this guide as a reference for preparing for certification and professional practice.

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1. Quality Management

- a. Preanalytic Risks and Risk Mitigation C
- b. Analytic Risks and Risk Mitigation
 - i. Ongoing Quality Control C
 - ii. Verification and Validation AR

- c. Postanalytic Risk and Risk Mitigation
 - i. Communication (e.g., Laboratory Reports, Critical Values) C
 - ii. Interpretation
 - 1. Reference Range Determination C
 - 2. Test Performance Characteristics C
(e.g., Sensitivity, Specificity, PPV, NPV, etc.)
 - 3. Advanced Interpretations AR
- d. Oversight of Quality
 - i. Guidelines C
 - ii. Test Utilization / Laboratory Stewardship C
 - iii. Quality Assurance, Management, and Improvement AR
 - iv. Process and Workflow Management AR
 - v. Management of Non-Conformances, Exceptions, and Incidents AR
 - vi. Change Control F

2. Safety

- a. Patient Safety
 - i. Risk Classification
 - 1. Preanalytic Hazards
 - a. Identification Error C
 - b. Ordering Error C
 - c. Phlebotomy hazards C
 - 2. Analytic Hazards
 - a. Interference C
 - b. Interpretive Error C
 - 3. Postanalytic Hazards
 - a. Communication Failure C
 - b. Reporting Error C
 - c. Interpretation Error C
 - ii. Risk Monitoring
 - 1. Sentinel Events C
 - 2. Near Misses C
 - iii. Risk Mitigation Measures
 - 1. Failure Mode and Effects Analysis AR
 - 2. Root Cause Analysis AR
 - 3. Human Factors / LEAN Design F
- b. Employee and Environmental Safety
 - i. Risk Classification
 - 1. Ionizing Radiation Hazard C
 - 2. Biological Hazard C
 - 3. Electrical Hazards C
 - 4. Fire C
 - 5. Workplace Violence C

6. Physical Hazards	C
7. Chemical Hazards (MSDS)	C
8. Repetitive Motion Injuries	C
9. Other Risks to Employees and Environments	C
10. Automotive Accidents (e.g., Specimen Transport Drivers)	F
ii. Risk Monitoring	AR
iii. Risk Mitigation Measures	AR
c. Disaster Management	F
3. Finance, Billing and Coding	
a. Accounting and Financial Statements	AR
b. Management of Expenses	F
i. Management of Unit Costs	F
ii. Utilization / Demand Management	F
c. Management of Revenue	
i. Coding, Billing, and Revenue Cycle	AR
ii. Major Payors	AR
1. Federal Government	AR
2. State Government	AR
3. Private Insurers	AR
4. Individuals	AR
iii. Payment Models	F
1. Individual Service Based (i.e., Fee for Service)	F
2. Episode Based	F
3. Capitated / ACO	F
d. Management of Capital	AR
4. Business Strategy	
a. Long Term Strategic Planning	F
b. Business Contracting and Negotiating	F
c. Business Models	F
5. Laws and Regulations	
a. Laboratories and Testing	
i. CLIA	C
ii. CAP	C
iii. Proficiency Testing (PT)	C
iv. FDA Testing Regulations	C
v. Regulation of Laboratory Financial Practices	AR
vi. Public Health Reporting	AR
vii. Joint Commission	AR
viii. ISO 15189	F
b. Physician Relations (e.g., Specific Laws [i.e., Stark, Anti-Kickback])	AR

- c. Environmental and Worker Safety (e.g., OSHA) C
- d. Regulation of Information and Information Management (e.g., HIPAA, FDA) C
- e. Tort Law (e.g., Malpractice) C
- f. Employment Law F
- g. Law Pertaining to Charitable (i.e., Non-Profit) Organizations F
- h. Other Bodies of Law and Regulation (e.g., HPDB, OIG) F

6. Professionalism and Ethics

- a. Medical Profession – Professionalism
 - i. Autonomy C
 - ii. Beneficence C
 - iii. Integrity C
 - iv. Non-Maleficence C
 - v. Conflict of Interest C
 - vi. Informed Consent C
 - vii. Confidentiality C
 - viii. Justice C
- b. Other Ethical Systems
 - i. Biomedical Ethics
 - 1. Patient Care C
 - 2. IRB / Research / Belmont Report C

7. Informatics

- a. The Nature of Information
 - i. Tracking (e.g., Barcoding) C
 - ii. Coding (e.g., SNOMED, ICD10, CPT) AR
 - iii. Types of Data AR
 - iv. Data Architecture and Management (i.e. Databases) F
- b. Electronic Information Systems
 - i. Types of Systems
 - 1. Laboratory Information Systems (LIS)
 - a. Use of Search Functions, Various Systems/Modules C
 - b. Middleware, Data Integrity, Result Reporting AR
 - 2. Other Information Systems (e.g., EMR)
 - c. Use and Search Functions C
 - d. Dashboard Generation and Data Mining F
 - ii. Systems Regulations (e.g., HIPAA) C
 - iii. System Operations
(i.e., Selection, Verification/Validation, Implementation) AR
 - iv. Qualities of Information Systems
 - 1. Interoperability (i.e., Standards and Interfaces) F
 - 2. Security, Integrity, Privacy, and Confidentiality F
 - v. Extracting Data from LIS and/or HER F

c. Digital Imaging	
i. Digital Pathology / Whole Slide Imaging	AR
1. Basic Use and Z Stacking	AR
2. Legality of Restrictions	AR
3. AI, Algorithms, and Data Structure	F
4. Compression and Decompression Data Integrity	F
5. Image Storage and Retrieval	F
6. Image Management Systems	F
d. Project Management	
i. Tools, Critical Path, Interaction of Sub-Projects	AR
ii. IT System Lifecycle	F
e. Document Control, including Job Aids (i.e., Control of Laboratory Policies, Procedures, and Directives)	AR
i. Document Control Systems	F
f. Inferences from Information	
i. Statistical Testing	
1. Sensitivity	C
2. Specificity	C
3. Positive Predictive Value	C
4. Negative Predictive Value	C
5. P values	C
6. Standard Deviation	C
7. Coefficient of Variation (%CV)	AR
ii. Decision Models	
1. Computer Algorithms	C
2. Disease-Specific Testing Algorithms	C
3. Clinical Decision Support Tools	C