CHAPTER OUTLINES

Note: All chapters open with an introduction, learning objectives and history, include case studies, and close with a section on future trends.

1. Basics of Quality Improvement
   a. Healthcare quality management (QM) movement
      i. Codman
      ii. Donabedian
      iii. Shewhart
      iv. Deming
      v. TQM
      vi. Overuse, underuse and misuse
      vii. Institute of Medicine
   b. Purpose and philosophy of QM
      i. Accountability
      ii. Continuous improvement of services
      iii. Outcomes improvement
   c. Implementing a quality improvement (QI) project
   d. Tools for QI
      i. Process management
      ii. Charts and diagrams
      iii. Cause-and-effect
      iv. Brainstorming
   e. Methods for QI
      i. PDSA methodology
      ii. Nolan’s three-question model
      iii. Six Sigma
      iv. Six Sigma Lean
   f. Commonly used QI strategies
      i. Patient centered care
      ii. Academic detailing
      iii. Opinion leaders
      iv. Audit and feedback
      v. Reminder systems
      vi. Patient education
vii. Case management
viii. Re-engineering
ix. Incentives
g. QI research
h. Challenges and barriers to successful QI
   i. Technology
   ii. Structure
   iii. Psychological climate
   iv. Leadership
   v. Culture
   vi. Legal issues

2. Quality Measurement

   a. Types of quality measurement
      i. Structural
      ii. Process
      iii. Outcome
   b. Constructing a measure
      i. Baseline
      ii. Trending, run charts
      iii. Process variation
      iv. Benchmarking
   c. Desirable characteristics of quality measures
      i. Relevant
      ii. Meaningful or applicable
      iii. Health improvement
      iv. Evidence-based
      v. Reliable or reproducible
      vi. Valid
      vii. Feasible
   d. Interpreting quality measures
   e. Program evaluation

3. Patient Safety

   a. Medical errors as a systems issue
      i. Active failures
      ii. Latent conditions
      iii. Human factors
   b. High risk factors and common patient safety risks
      i. Fatigue
      ii. Medication errors
         • Prescribing
         • Transcribing
         • Dispensing
         • Administration
         • Monitoring
         • Measurement
         • Prevention strategies
      iii. Invasive procedures
         • Correct patient
         • Correct site
         • Antibiotic administration
• Retained surgical equipment
• Transfusion risks
• Oversedation
iv. Infections
v. Patient falls
vi. Decubitus ulcers
c. Patient safety tools
   i. Tools for data acquisition (reporting and surveys)
   ii. Analytic tools (event analysis and process improvement)
d. Disclosure of errors
e. Prevention of errors
   i. System approach
   ii. Operation interventions
f. High reliability organizations
   i. Preoccupation with failure
   ii. Reluctance to simplify
   iii. Sensitivity to operations
   iv. Reference to expertise
   v. Resilience

4. Medical Informatics

a. Evolution of medical informatics in the U.S.
b. Purpose of an informatics infrastructure
c. Essential components of an informatics infrastructure
   i. Data sources
   ii. Data definitions
   iii. Coding classification systems
   iv. Data transmission
   v. Health information exchange
   vi. Data storage
   vii. Data analysis
   viii. Electronic medical record (EMR)
   ix. Computer physician order entry (CPOE)
x. EMR and its impact on quality and safety
d. Evaluating an information infrastructure
e. Barriers to development of an information infrastructure
f. Health information technology and return on investment
g. Glossary

5. Utilization Management

a. Utilization management (UM) systems
   i. Critical components
   ii. UM processes
b. The nine essential tasks of utilization management
   i. Determine priorities
   ii. Identify needed information and stakeholders
   iii. Establish benchmarks
   iv. Design data collection and management
   v. Implement data collection and management
   vi. Evaluate the data
   vii. Develop guidelines, policies and procedures
   viii. Implement guidelines, policies and procedures
ix. Continuously review the task list
    c. Processes, procedures and timing of UM
    d. Concurrent review and discharge planning
    e. Retrospective review
    f. Inter-relater reliability
    g. Effectiveness of UM programs
    h. Risk management and safety
    i. Organizational design of UM
    j. Functions of a UM committee
    k. Disease management
    l. Case management
    m. Care plans
    n. Demand management
    o. Peer review
    p. Credentialing
    q. Physician profiles
    r. Accreditation and regulatory oversight
    s. Models of care
        i. Chronic care model
        ii. Evidence-based medicine and management models
        iii. Patient centered medical home model

6. External QI: Accreditation, QI Education and Certification

   a. Accreditation
      i. National Committee for Quality Assurance (NCQA)
      ii. Utilization Review Accreditation Commission (URAC)
      iii. The Joint Commission (formerly JCAHO)
      iv. Leapfrog
      v. International Organization for Standardization (ISO)

   b. Profiling
   c. HEDIS
   d. Baldrige
   e. Public reporting
   f. Benchmarking
   g. Certification, licensure, credentialing
   h. Teaching quality management and quality improvement
      i. Undergraduate medical education
      ii. Graduate medical education
      iii. Continuing medical education

7. The Interfaces Between QI, Law and Medical Ethics

   a. Role of the government
   b. Specific regulations, laws and acts that pertain to QI
   c. Regulation and public law to ensure quality
   d. HCQIA and peer review protections
   e. National Practitioner Databank
   f. HIPAA
   g. Medical errors and transparency
   h. Basics of malpractice
   i. Facility or organizational risk management issues
   j. Anti-trust in medicine
k. Alternate dispute resolution, mediation, arbitration
l. Medical ethics
   i. Respect for autonomy
   ii. Beneficence and non-maleficence
   iii. Justice
   iv. Institutional review boards

8. Financial management and QI
   a. Basic concepts in business and economics
      i. Economics
      ii. Accounting
         • Types of financial reporting tools
         • Types of accounting systems
         • Accounting skills needed by medical managers
      iii. Finance
         • Costs of capital
         • Discounted cash flow analyses
         • Budgeting
      iv. Other general business principles
         • Organizational planning and the planning process
         • Project management
         • Creation of business plans
         • Preparation of pro forma financial statements
         • Performance of sensitivity analyses
         • An understanding of organizational psychology
   b. Making the business case for quality
      i. Outcomes categories
         • Financial
         • Clinical
         • Intangible/social
         • Productivity
         • Operational
   c. Pay for performance (P4P) and quality

9. Organization Design and Leadership
   a. Organizational systems thinking and theories
   b. Responsibilities and necessary competencies for a leader in QI
      i. Internal advocacy and spokesmanship
      ii. Policy, planning and vision
      iii. Delivery system decision support
      iv. Analysis and control of quality
      v. External liaison and representation
   c. Roles, power and structure in quality leadership
   d. Conflict resolution
   e. Planning in a quality program
      i. Behavioral benefits of quality planning
      ii. Hoshin planning
   f. Strategies to effect change
   g. Strategy formulation and implementation for an organization
   h. Building learning organizations