

## **CORE BODY of KNOWLEDGE for MEDICAL DIRECTORS**

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The Core Body of Knowledge is an educational guide for the Medical Director. It provides principles of Insurance Medicine, tools, and resources.

### **Mission Statement of the Continuing Medical Education Committee of the American Academy of Insurance Medicine:**

The Education Committee will provide the American Academy of Insurance Medicine the structure and means to acquire medical knowledge in order to help medical directors of life, health, disability and long term care insurance to be well informed and effective in their roles. This committee will also assist underwriters and others with an interest in insurance medicine in achieving their educational objectives.

### **Role of the Insurance Medical Director**

The insurance medical director applies current medical knowledge to enhance the company's ability to place profitable business by undertaking research, training, and developing underwriting guidelines. An expanded role may include participation in claims, marketing, actuarial, legal, and other areas of company operation.

### **Basic Knowledge Required to Perform Effectively as a Medical Director**

- I. General insurance and insurance medicine principles, practices, law and ethics in each of the following areas:
  - A. Life insurance underwriting and claims
  - B. Disability income underwriting and claims
  - C. Structured settlements
  - D. Long term care insurance
  - E. Health insurance underwriting and claims
  - F. Critical illness insurance
  
- II. Mortality and morbidity analysis, including an understanding and working knowledge of:
  - A. Life tables
  - B. Survival curves and life expectancy
  - C. Select and ultimate mortality
  - D. Common patterns for diseases and other health-related conditions, and rating approaches
  - E. Sensitivity, specificity and predictive values
  - F. Value and limitations of examinations, laboratory testing and other diagnostic methods
  - G. Protective value studies
  - H. Use of external standards for comparative mortality/morbidity (i.e. Observed and expected mortality)
  - I. Older Age Underwriting
  - J. Multivariate Analysis
  
- III. Medical Information Bureau (MIB): function, guidelines, legal aspects and medical director responsibilities
  
- IV. Health-related conditions and behaviors, and the effectiveness of current therapy, including each of the following subject areas:
  - epidemiology (including who is at risk and relative importance and age specific considerations)
  - condition specific mortality patterns
  - risk factors
  - genetic factors
  - screening techniques (availability and effectiveness)
  - diagnostics (the physical examination, laboratory and other diagnostic studies – availability, accuracy and limitations)
  - impact of therapy
  - prognostic factors

The subjects listed under the following headings highlight commonly encountered conditions. This is not an all-inclusive list.

- A. Genetics
  - 1. Basic principles of genetics and molecular biology
  - 2. Genetic testing: basic methodology; clinical applications; ethical, legal and social issues
  - 3. The application of genetics in underwriting
  
- B. Infectious diseases
  - 1. HIV
  - 2. Other
  
- C. Cardiovascular
  - 1. EKG, stress test, imaging and invasive test interpretation
  - 2. Hypertension
  - 3. Atherosclerotic disease, including risk factors and impact of medical, interventional and surgical therapy
    - a) Coronary artery disease
    - b) Peripheral arterial disease
    - c) Cerebrovascular disease
  - 4. Valvular heart disease
  - 5. Cardiomyopathies
  - 6. Congenital heart disease
  - 7. Cardiac arrhythmias
  - 8. Thromboembolic disease
  
- D. Endocrine / Metabolism
  - 1. Diabetes mellitus and other glucose homeostasis disorders
  - 2. Thyroid disorders
  - 3. Pituitary disorders
  - 4. Calcium homeostasis disorders
  - 5. Adrenal disorders
  - 6. Lipid disorders
  - 7. Obesity Management
  - 8. Multiple endocrine neoplasia
  
- E. Gastrointestinal
  - 1. GI bleeding
  - 2. Inflammatory bowel disease
  - 3. Liver enzyme abnormalities
  - 4. Hepatobiliary disease
  - 5. Hemochromatosis
  - 6. Barrett's and other esophageal disorders
  - 7. Celiac disease and other disorders of malabsorption
  - 8. Pancreatic Disorders
  - 9. Peptic ulcer disease
  
- F. Genitourinary
  - 1. Proteinuria and albuminuria
  - 2. Chronic kidney disease
  - 3. Adult polycystic kidney disease
  - 4. Glomerulonephritis
  - 5. Neurogenic bladder
  - 6. Renal transplantation
  - 7. Hematuria
  - 8. Interpretation of kidney function tests
  - 9. Kidney Stones
  - 10. Congenital Anomalies

- G. Hematology / Oncology
1. Hematologic/lymphatic malignancies
  2. Anemia/myelodysplastic syndromes/platelet disorders/coagulation disorders
  3. Breast malignancies
  4. Urologic/gynecologic malignancies
  5. Gastrointestinal malignancies
  6. Lung cancer
  7. Monoclonal gammopathy/multiple myeloma/immunodeficiency syndromes
  8. Nervous system malignancies
  9. Skin/soft tissue/bone tumors
  10. Familial cancer syndromes
  11. Treatment related complications/secondary malignancies
  12. Childhood cancers
  13. Endocrine malignancies
- H. Musculoskeletal / Rheumatology
1. Inflammatory Arthropathies (Examples include: Rheumatoid arthritis, Spondyloarthropathies)
  2. Systemic conditions and connective tissue diseases (Examples include: Lupus, Scleroderma, Polymyositis, Vasculitis)
  3. Congenital and Familial Disorders affecting Joints (Examples include: Marfan Syndrome, Ehlers-Danlos Syndrome)
  4. Degenerative Arthropathies and diseases affecting bones (Examples include: Osteoarthritis, Osteoporosis)
  5. Soft Tissue Rheumatism (Examples include: Fibromyalgia, back pain)
- I. Neurology
1. Developmental Disorders / Intellectual Disability / Cerebral Palsy
  2. Seizure Disorders
  3. Movement Disorders (including Parkinson Disease)
  4. Demyelinating Disorders (including Multiple Sclerosis)
  5. Brain and Spinal Cord Injuries
  6. Cognitive Disorders (including Dementias)
  7. Headaches and Chronic Pain Syndromes
  8. Interpretations of Neurologic Tests (including imaging)
  9. Peripheral Nervous System Disease (including Neuropathy and Neuromuscular Disorders)
- J. Psychiatry
1. Mood disorders (including depression and bipolar disorder)
  2. Anxiety disorders
  3. Schizophrenia and other psychotic disorders
  4. Attention deficit / Hyperactivity disorder
  5. Suicide risk
  6. Eating Disorders
  7. Personality Disorders
- K. Respiratory
1. Obstructive Lung Disease (Examples include Asthma and COPD)
  2. Restrictive Lung Disease (Examples include Interstitial lung diseases)
  3. Sarcoidosis
  4. Sleep Disorders (Examples include sleep apnea and narcolepsy)
  5. Pulmonary Nodules
  6. Pulmonary Function Testing

- L. Substance Use
  - 1. Alcohol
  - 2. Tobacco
  - 3. Illicit drugs
  - 4. Prescription drug misuse/abuse/adverse side effects
  - 5. Dual Diagnosis (Mental Illness and Substance Use)
  - 6. Marijuana
  - 7. Performance Enhancing Drugs and Anti-Aging Supplements
  
- M. "Non-medical" Factors
  - 1. Potentially hazardous avocations
  - 2. Aviation
  - 3. Foreign travel
  - 4. Occupation (including military service)
  - 5. Motor vehicle record
  - 6. Criminal record
  - 7. Financial assessment

## **Recommended Resources for Mortality and Insurance Medicine Information**

### **I. Texts, journals and published studies**

- A. Medical Selection of Life Risks (Brackenridge)
- B. Journal of Insurance Medicine
- C. Underwriting publications, including On the Risk
- D. Medical Literature

### **II. Internet-based resources**

- A. PubMed search tool for Medline
- B. Society of Actuaries with various mortality tables
- C. Latest in SEER survival statistics for various malignancies
- D. Reinsurance Manuals

### **III. Self study programs**

- A. Life Office Management Association (LOMA) series, especially 281, 291, and 311/316
- B. Academy of Life Underwriting (ALU) series
- C. Chartered Life Underwriter (CLU) series

### **IV. Training programs and meetings**

- A. Triennial Course in Insurance Medicine
- B. Introduction to Insurance Medicine
- C. Basic Mortality Methodology
- D. AAIM Audio Seminar Series
- E. AAIM Annual Meeting
- F. Other industry meetings

### **V. Insurance Medicine professional organizations and certifying body**

- A. American Academy of Insurance Medicine (AAIM)
- B. Board of Insurance Medicine (examination and certifying body of AAIM)
- C. American Council of Life Insurers (ACLI) Medical Section
- D. Canadian Life Insurance Medical Officers Association (CLIMOA)
- E. International Committee of Life, Disability and Health Assurance Medicine (ICLAM)
- F. Regional and local organizations, including but not limited to the Midwest Medical Directors Association and the Twin Cities Medical Directors Association

### **VI. Related professional organizations**

- A. Association of Home Office Underwriters (AHOU)
- B. Canadian Institute of Underwriting (CIU)
- C. Society of Actuaries (SOA)
- D. American Academy of Disability-Evaluating Physicians (AADEP)