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MEDICINE IN SOCIETY
CURRICULUM OVERVIEW

Introduction and Overview

DO 138AG – Medicine in Society: Public Health and Biostatistics

This course focuses on the critical components of physician responsibility and advocacy in the development and delivery of health care systems in the US. An epidemiological approach is implemented to study the historical influences that have led the current health care system to a state of crisis. The critical need for physician advocacy within the context of socio-cultural, economic, marketing and political competence will be explored. Concepts and strategies from epidemiology, including bio-statistical analysis of current research studies, will be applied to real case studies of community issues relevant to physician responsibilities. Current medico-legal, ethical and political issues will be studied in terms of options for physician advocacy and responsibility to the community.

Relationship of Course Curriculum to the Seven Osteopathic Medical Competencies

The curriculum of this course meets the following Osteopathic Medical Competencies and their Required Elements as defined by the National Board of Osteopathic Medical Examiners (NBOME):

Competency 4, Required Elements 1, 3
Competency 5, Required Elements 1, 2, 3, 4, 5, 6, 7
Competency 6, Required Elements 1, 2, 3, 4, 5, 6, 7, 8
Competency 7, Required Elements 1, 2, 3, 4, 5

Topical Outlines

First Term (OMS 1) – M1T1

Evidence-based Medicine

Introduction	1	
Biostatistics	4	(8 clock hours in lab setting)
Epidemiology	3	(8 clock hours in lab setting)
Critical Reading	<u>2</u>	
	10	
Cultural Sensitivity	2	[Competency 5, Required Elements 2, 3, 7]
Gender/Harassment issues	<u>2</u>	
TOTAL	14	

Second Term (OMS 1) – M1T2

Managed Care

Introduction	1	
Utilization Management	1	
Quality Assurance (QA)	<u>1</u>	
	3	
Preventive Medicine	3	(6 clock hours in lab setting)
Community-based Medicine	3	(6 clock hours in lab setting)
Ethics & Professionalism (sm group)	3	(6 clock hours in lab setting)
Patient Advocacy	<u>1</u>	
TOTAL	13	

Third Term (OMS 1) – M1T3

Occupational and Environmental Hazards (3 hrs)

Noise	1	
Ionizing and Non-Ionizing Radiation	2	
Vaccines and Immunizations (2 hrs)	2	
Reporting Adverse Drug Reactions		
Disaster and Emergency Planning (9 hrs)		
Overview & Concept	1	
DISASTER Paradigm	1	
Natural Disasters	1	
Explosive & Traumatic Events	1	
Nuclear & Radiological Events	1	
Biological Agents	1	
Chemical Agents	1	
Psychosocial Aspects	1	
Public Health System	<u>1</u>	
TOTAL	14	

Cross-Reference Table: Curriculum Topics, Competencies, Required Elements

First Term (MS 1) – M1T1

Evidence-based Medicine		
Introduction	1	
Biostatistics	4	[Competency 6, Required Elements 1, 2, 3, 5]
Epidemiology	3	[Competency 6, Required Elements 1, 2]
Critical Reading	<u>2</u>	[Competency 5, Required Element 5;
	10	Competency 6, Required Elements 2, 5]
Cultural Sensitivity	2	[Competency 5, Required Elements 2, 3, 7]
Gender/Harassment issues	<u>2</u>	
TOTAL	14	

Second Term (MS 1) – M1T2

Managed Care		[Competency 4, Required Element 3; Competency 5, Required Element 4; Competency 6, Required Elements 6, 8 Competency 7, Required Elements 1, 2, 3, 4, 5]
Introduction	1	
Utilization Management	1	
Quality Assurance (QA)	<u>1</u>	
	3	
Preventive Medicine	3	[Competency 6, Required Elements 4, 7, 8]
Community-based Medicine	3	
Ethics & Professionalism	3	[Competency 4, Required Element 1; Competency 5, Required Elements 1, 2, 6]
Patient Advocacy	<u>1</u>	
TOTAL	13	

Objectives

Epidemiology

To be able to identify measures of disease frequency and excess risk and apply these in the context of epidemiologic questions and problems.

To be able to understand and apply the calculation and application of screening test utilities. [Competency 6, Required Elements 1, 2]

- Morbidity and Mortality measures
- Incidence
- Prevalence
- Attack Rate
- Relative Risk
- Odds Ratio
- Positive and Negative Predictive Value
- Sensitivity
- Specificity

Biostatistics

To be able to apply basic probability and statistical methods to the analysis and interpretation of biomedical data. [Competency 6, Required Elements 1, 2, 5]

To be able to apply biostatistical methods to perform objective evaluations of conclusions based on the data. [Competency 6, Required Elements 2, 3]

Critical Reading

To be able to identify the characteristics and methodology for different research designs and understand the sources of bias for each design.

[Competency 5, Required Element 5; Competency 6, Required Elements 2, 5]

- Descriptive studies
- Cohort studies
- Case-control studies
- Clinical trials

Preventive Medicine

[Competency 6, Required Elements 4, 7, 8]

To be able to understand the basic elements of assessing the overall value of a screening test.

To know the basic screening, counseling, immunization, and chemoprevention recommendations by age group and disease category.

To comprehend the methodology used by the U.S. Preventive Services Task Force (USPSTF) and be aware of the variation that occurs with other organizations' guidelines (e.g., American Cancer Society, World Health Organization, etc.).

To understand essential aspects of key controversies in preventive services.

To know the recent updates in clinical preventive services.

Community-Based Medicine

Infectious Disease Control

To be able to define primary, secondary, and tertiary prevention

To be able to apply the principles of clinical preventive medicine to infectious disease control and management

To be able to apply the principles of chemoprophylaxis to the prevention and control of infectious disease

To be able to apply the principles of personal health behaviors to the prevention and control of infectious disease

Toxicology

To be able to give the definition of Toxicology

To be able to identify various elements of chemical exposure

To be able to identify methods and common applications of Toxicology in chemically-induced illness

To be able to list the routes and degree of exposure, absorption, and metabolism

To be able to apply the principles of exposure-dose response relationship, duration, frequency, and distribution effects on target organs/systems, metabolism, and routes of excretion

Occupational/Environmental Medicine

To be able to list the physical, chemical, biological, and psychological hazards and their effects on populations exposed to cardiopulmonary toxins

To be able to evaluate the health of individuals and populations of concern; the environments in which the population of concern exists; and the hazards associated within various environments

To be able to recognize and apply appropriate laws and regulations to various occupational and environmental situations to include protective equipment and processes

To be able to differentiate the types of occupationally and environmentally induced pulmonary diseases

Ethics and Professionalism

[Competency 4, Required Element 1; Competency 5, Required Elements 1, 2, 6]

To be able to discuss the difference between ethics and laws.

To be able to list key elements of ethical principles.

To be able to discuss key end-of-life issues (e.g., advanced directives, DNR/DNI orders, etc.) and their impact on patient management

To be able to describe the role of the Physician's Data Base, who manages it, and how it is used.

Managed Care

To be able to define: [Competency 4, Required Element 3]

Capitation

Copayment

Deductible

Fee for Service

Managed Care

Health Maintenance Organization (HMO) [Competency 6, Required Element 8]

Prospective payment

Retrospective Payment

Disease Related Groupings (DRG)

Resource Based Relative Value Scale (RBRVS)

To be able to describe the agencies and services of the Dept. of Health and Human Services (DHHS). [Competency 7, Required Elements 1, 2]

To know the eligibility criteria and sources of funding for Medicare and Medicaid.

To be able to discuss the roles of the government in the health care system and agencies that are involved in these roles.

To understand the concept of “usual, customary, and reasonable” (UCR) fees.

To know the source of funding for government-sponsored health care.

To know how hospitals are reimbursed for services. [Competency 7, Required Element 3]

To know how health care providers are reimbursed for services.

To know the differences between benefits offered by Medicare (Part A, B, and C) and Medicaid, and the source of funding for each program.

To be able to describe the principles of total quality management (TQM) and continuous quality improvement (CQI). [Competency 5, Required Element 4]

To understand the relationship between structure, process, and outcomes. [Competency 7, Required Element 5]

To understand the relationship between the National Committee for Quality Assurance (NCQA) and the Health Employer Data Information Set (HEDIS). [Competency 6, Required Element 8]

To know the Institute of Medicine (IOM) definition of “quality”. [Competency 6, Required Element 6]

To be able to name 2-3 private and government quality improvement programs, the quality indicators used, and their sources. [Competency 6, Required Element 6]

To be able to discuss the key elements essential for the physician to act in a patient advocacy role. [Competency 7, Required Element 4]

To be able to name and discuss proven strategies to improve patient safety.

Medicine in Society – Schedule for GA-PCOM Class of 2012 (M1T1):

Wed, 8/20/08	1-2PM	Intro to Evidence-Based Medicine	(Dr. Berkowitz)
Wed, 8/20/08	2-4PM	Principles of Epidemiology I	(Dr. Berkowitz)
Wed, 8/27/08	2-4PM	Principles of Epidemiology II	(Dr. Berkowitz)
Wed, 9/03/08	1-3PM	Clinical Epidemiology	(Dr. Berkowitz)
Wed, 9/10/08	1-3PM	Biostatistics I	(Dr. Rosenberg)
Wed, 9/17/08	1-4PM	Biostatistics II	(Dr. Rosenberg)
Wed, 9/24/08	1-3PM	Critical Reading for Evidence-Based Medicine	(Dr. Berkowitz)
Wed, 10/22/08	1-5PM	Applied Epidemiology & Biostatistics	(Drs. Berkowitz & Rosenberg)

Wed, 11/5/08 8-10AM Medicine in Society 1 **Final Exam**

Medicine in Society – Schedule for GA-PCOM Class of 2012 (M1T2):

Wed, 11/19/08	1-2PM	Intro to Ethics & Professionalism	(Dr. Berkowitz)
Wed, 11/19/08	2-4PM	Ethics & Professionalism: Discussion (Topic TBD)	(Drs. Berkowitz & Rosenberg)
Wed, 12/03/08	1-2PM	Intro to Preventive Medicine & Public Health	(Dr. Rosenberg)
Wed, 12/10/08	1-3PM	Clinical Preventive Medicine	(Dr. Rosenberg)
Wed, 12/17/08	1-2PM	Intro to Community-Based Medicine	(Dr. Berkowitz)
Wed, 1/07/09	1-3PM	Community-Based Medicine: Infectious Disease Control	(Dr. Rosenberg)
Wed, 1/14/09	1-3PM	Community-Based Medicine: Toxicology	(Dr. Rosenberg)
Wed, 1/21/09	1-3PM	Community-Based Medicine: Occupational Medicine	(Dr. Rosenberg)
Wed, 1/28/09	1-2PM	Managed Care I	(Dr. Evans)
Wed, 1/28/09	2-3PM	Managed Care II	(Dr. Evans)

Wed, 2/18/09 8-10AM Medicine in Society 2 **Final Exam**

Medicine in Society – Schedule for GA-PCOM Class of 2012 (M1T3):

Wed, 3/04/09	1-2PM	Occupational & Environmental Hazards: Noise	(Dr. Berkowitz)
Wed, 3/04/09	2-4PM	Occupational & Environmental Hazards: Ionizing & Non-Ionizing Radiation	(Dr. Berkowitz)
Wed, 3/11/09	1-3PM	Vaccines and Immunizations	(Dr. Berkowitz)
Wed, 3/18/09	1-2PM	Disaster & Emergency Planning: Overview	(Dr. Berkowitz)
Wed, 3/18/09	2-4PM	DISASTER Paradigm & Natural Disasters	(Dr. Berkowitz)
Wed, 4/08/09	1-2PM	Explosive & Traumatic Events	(Dr. Berkowitz)
Wed, 4/08/09	2-3PM	Nuclear & Radiological Events	(Dr. Berkowitz)
Wed, 4/15/09	1-3PM	Biological and Chemical Events	(Dr. Berkowitz)
Wed, 4/22/09	1-3PM	Psychosocial & Public Health Aspects	(Dr. Berkowitz)
Wed, 4/29/09	1-3PM	Basic Disaster Life Support Certification Exam	(Dr. Berkowitz)

Wed, 5/06/09 1-3PM Medicine in Society 3 **Final Exam**

2007-2008 Faculty: Murray R. Berkowitz, D.O., M.A., M.S., M.P.H., C-NMM/OMM
Paul Evans, D.O.
Fredric K. Rosenberg, D.O., J.D., M.P.H.