

**Educational Objectives of the
University of Utah School of Medicine**

Adapted from a Report to the Medical School Community By the Dean's Ad hoc
Committee on Curriculum Reform

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Knowledge

BASIC SCIENCES

Objective:

The student will be able to:

1. Describe the normal functioning of the human organism on molecular, cellular and organ system levels.
2. Describe the pathophysiology of all major disease processes at the cellular and organ system levels.
3. Explain the mechanism and possible adverse effects of various therapeutic interventions.
4. Analyze the basic science issues presented by a clinical problem.
5. Apply significant principles of basic science as they relate to clinical medicine.

Rationale:

The biological sciences are the foundation upon which our understanding of health and disease is built. The rapid advance of these sciences provides both a deepening knowledge of normal and pathological processes, as well as new tools for diagnosis and treatment.

Assessment:

Standardized (USMLE) and course-specific tests, including multiple choice and short answer questions, case-based problem solving, preceptor evaluation of clinical practice.

CLINICAL SCIENCES

Objective:

The student will be able to:

1. Describe the signs, symptoms and physical findings of all major disease entities.
2. Identify deviations from the expected course of a disease.
3. Identify and interpret diagnostic procedures appropriate to confirm or refute the diagnosis of particular clinical conditions.
4. Predict the expected results of a treatment plan for any given clinical condition.
5. Provide patient care in the areas of preventive, acute, chronic, continuing, rehabilitative, and end-of-life medicine.
6. Distinguish between primary and specialty care.

Rationale:

The knowledge of clinical medicine is the *sine qua non* of clinical practice. A strong fund of knowledge in clinical medicine is essential for competent practice. Competence in a range of areas, and recognition of the scope of practice between primary and specialty care, leads directly to safe, effective clinical decisions.

Assessment:

Standardized and course-specific tests, including multiple choice and short answer questions, standardized patients, preceptor evaluation of clinical practice.

THE PATIENT CONTEXT

Objective:

The student will be able to:

1. Demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments.
2. Assess and describe the effects of factors influencing the health care status of individual patients beyond those of a biological nature, including social, cultural, economic, psychological, environmental, occupational, familial and spiritual factors.
3. Formulate a diagnosis and plan for treatment that incorporates these factors.
4. Employ these factors in communicating with patients to define clinical problems and agree on a treatment plan.

Rationale:

Many disease processes are influenced by the patient's social, economical, and personal environment. The physician must be sensitive to the cultural, social, financial and environmental factors influencing the patient's perceptions, behavior and compliance.

Assessment:

Standardized patients, essay, case discussions, evaluation of history and physical techniques by clinical preceptor.

HEALTH CARE DELIVERY SYSTEM**Objective:**

The student will be able to:

1. Describe the history of the United States' health care system.
2. Describe health care delivery and financing, including gender and cultural biases, and the role of the government and private payers.
3. Analyze a financing or delivery issue in writing.
4. Explain the theory and practice of managed care.
5. Compare health care systems of other major developed countries to the U.S. system.

Rationale:

Information regarding how health care is delivered and paid for is critical on a number of levels. First, knowledge of the health insurance system can help a physician take care of a patient in the most efficient and effective way possible. Second, by understanding the way that health care is delivered and financed physicians can influence health care policy. Third, a working understanding of the health care system is required if a physician is to make rational decisions about career choice and practice type.

Assessment:

Essay or research project, preceptor evaluation of clinical practice.

LEGAL AND ETHICAL ISSUES**Objective:**

The student will be able to:

1. Describe selected ethical concepts, including informed consent, advanced directives, end-of-life care, and the role of the Institutional Review Board.
2. Identify the competing considerations involved in ethical issues.
3. Formulate an approach to particular ethical problems consistent with the moral responsibilities of a medical professional.

4. Describe legal principles of negligence, malpractice, and risk management.
5. Describe legal guidelines for contracting, employee rights and responsibilities, self-referral, and antitrust.

Rationale:

Knowledge of informed consent and advanced directives allows physicians to promote the patient's right to personal autonomy and active participation in health care. Best practice requires that physicians know how the legal system works and be familiar with the principles of the law of negligence and the maxims of risk management. Finally, the advent of managed care has created a set of ethical issues involving the physician, the patient, and managed care companies. Exposure to these issues promotes the development of critical thinking skills.

Assessment:

Short answer or essay questions; essay or research project on a legal or ethical issue, preceptor evaluation of clinical practice.

HEALTH PROMOTION AND DISEASE PREVENTION

Objective:

The student will be able to:

1. Describe preventive health care measures across the life span and across cultures.
2. Assess the patient for current health promotion and disease prevention activities and deficits.
3. Create, implement, and evaluate a treatment plan with the patient that includes attention to health promotion and disease prevention.
4. Describe selected complementary therapies.

Rationale:

Preventing disease is less costly than treating it. Many consider complementary therapies to be important adjuncts to promoting health and preventing disease. Thus, physicians must know what keeps people healthy and help patients make the best choices to maintain or improve health.

Assessment:

Written short essay examinations on health promotion, standardized patient sessions, essays, and preceptor evaluation of clinical practice.

COMMUNITY HEALTH

Objective:

The student will be able to:

1. Describe the basic principles of public health, epidemiology and biostatistics.

2. Analyze a community health problem in writing.
3. Use resources available in the community to help improve the overall quality of society's health, as well as the health of individual patients.
4. Advocate for better health for patients and the community.

Rationale:

Every patient belongs to a community, which will have its own, special influence on the health of its members. Every aspect of life benefits from public health measures that provide clean air, land and water. Thus, all physicians must understand the tenets of public health.

Assessment:

Multiple choice and short answer exams, research project, written essay, primary care preceptor evaluation.

Skills

CLINICAL SKILLS

Objectives:

The student will be able to:

1. Take and record a clinical history in a variety of situations.
2. Perform a comprehensive and accurate physical examination.
3. Demonstrate ethical principals in caring for patients, and in relating to patients' families and to others involved in patient care.

Rationale:

Quality care begins by obtaining useful and accurate information from the patient, including those who are disoriented or otherwise un- or non-communicative. Skilled physicians adapt their interview, communication, and examination methods to each situation. This process works best if everyone involved is treated fairly and honestly.

Assessment:

Preceptor assessment of history and physical during clinical rotations. Objective structured clinical examinations (OSCE).

PROBLEM SOLVING / PATIENT MANAGEMENT SKILLS

Objectives:

The student will be able to:

1. When presented with initial history, develop a preliminary problem list and initial plans for additional data collection, including further history, focused physical examination, and laboratory evaluation to refine the problem list.
2. Incorporate additional information to develop a formal differential diagnosis.
3. Develop plans for continued evaluation and/or treatment based on the above data and additional information obtained from textbooks, medical literature, colleagues, etc.
4. Develop plans that include cultural considerations and are sensitive to the health care needs and issues of non-dominant groups.
5. Integrate and apply knowledge derived from diverse domains and sources in the solution of clinical problems.

Rationale:

The physician is primarily a problem-solver. The use of problem-solving techniques allows the physician to correctly identify a problem, devise a realistic, flexible, and accurate treatment plan with the patient, and to adjust the plan based on continuous evaluation. While the steps of problem solving may not be

replicated for every problem, they are important for every physician to use in assessing and managing unfamiliar conditions. Best problem solving occurs when data is derived from multiple sources. Plans for care are most effective when they are culturally and socially sensitive.

Assessment:

Evaluation and management plans in classroom and clinical settings. Objective structured clinical examinations (OSCE).

COMMUNICATION AND INTERVIEW SKILLS

Objectives:

The student will be able to:

1. Employ active listening skills, including nonverbal and verbal interaction.
2. Establish, maintain, and terminate an empathetic relationship.
3. Manage the phases of a clinical interview, including opening and closing, transitions, and the body of the interview.
4. Demonstrate effective communication with uncooperative, depressed, mentally ill, non-English speaking, or physically handicapped individuals.
5. Maintain professional behavior with colleagues and patients, demonstrating courtesy, respect, tact, and appropriate emotional control.
6. Negotiate with the patient as a partner in decisions about his/her health including agreeing on the definition of the patient's clinical problem and establishing mutually acceptable goals for treatment.

Rationale:

Excellence in practice requires an ability to encourage and accurately hear patient communication, and to communicate effectively with colleagues.

Assessment:

Standardized patient interviews, OSCE examination, and preceptor evaluation of clinical practice.

INFORMATION MANAGEMENT

Objective:

The student will be able to:

1. Retrieve information, demonstrating the ability to perform database searches using logical operators, controlled vocabulary, appropriate limits, and evidence-based filters.
2. Manage selected citations from a database search and organize them into a personal database for tracking literature in an area of interest.
3. Manage both handwritten and electronic medical records.

4. Protect confidentiality of private information obtained from patients, colleagues and others.
5. Make use of online and print resources to enhance presentation skills and answer a clinical question.
6. Conform to copyright and intellectual property regulations.

Rationale:

Information management via computer is already a core skill for physicians, and will increase in importance over time. Evidence-based practice requires that physicians answer a clinical question using computerized reference databases of selected medical literature. Developing skills to manage and track literature in an area of interest is vital for staying current. Ethical principles and legal constraints demand patient confidentiality.

Assessment:

Submission, in writing, of a clinical question and its answer with supporting documentation including a printout from the computerized literature search. Preceptor evaluation of clinical practice.

APPLICATION OF RESEARCH FINDINGS

Objective:

The student will be able to:

1. Critically analyze a selected research paper from the medical literature.
2. Find and apply multiple sources of information, including clinical trials, review articles, and practice guidelines, to a particular clinical situation.
3. Assess the quality and validity of these sources of evidence using literature analysis techniques.
4. Describe his/her responsibility to maintain information and skills over the length of practice.

Rationale:

The short half-life of clinical information requires that physicians base their practice on current research findings.

Assessment:

Formal oral presentation, multiple-choice tests, preceptor evaluation of clinical practice.

PATIENT EDUCATION

Objectives:

The student will be able to:

1. Identify the need and opportunity for educating patients in a clinical setting.

2. Form a teaching plan for a variety of persons and situations.
3. Implement and evaluate a teaching plan sensitive to developmental, gender, cultural and individual differences.

Rationale:

All physicians teach patients and their families regarding disease treatment and progression, health maintenance, and disease prevention. Formal and informal teaching occurs in all clinical settings, requiring that the physician understand basic information about assessment of the need for teaching, multiple strategies for teaching, and how to assess the efficacy of teaching.

Assessment:

Standardized patients, preceptor evaluation of clinical practice.

Attitudes

RESPECT

Objective:

The student will be able to:

1. Identify patient needs and priorities, particularly when in conflict with the student's.
2. Protect the patient's rights to privacy and autonomy at all times.
3. Identify the effects of intolerance and discrimination on the health care of non-dominant ethnic and social groups.

Rationale:

Physicians are dedicated to their patient's well-being and best interest, as defined by the patient. Every patient has a right to privacy and a right to have input into their care. Every patient also has a right to bias-free access and care, delivered by a physician conscious of the effects of social and ethnic discrimination on health access and care.

Assessment:

Standardized patient model and short-answer patient management problems, preceptor evaluation of clinical practice.

COOPERATION

Objective:

The student will be able to:

1. Work constructively with other health care providers in interdisciplinary teams.
2. Display the professional ethics of physicians.
3. Demonstrate professional behavior in individual patient encounters and as a member of the health care team.

Rationale:

All physicians work with others in the health care team and should value the input/contribution of other team members. Part of a physician's role is how to conduct oneself in a professional manner; this includes showing respect for all members of the health care team, all patients and their families.

Assessment:

Ward evaluations from attending physicians, preceptor evaluation of clinical practice.

SELF AWARENESS

Objective:

The student will be able to:

1. Evaluate one's own performance, skills, and attitudes realistically and objectively.
2. Recognize one's own personal limitations.
3. Protect and promote one's own mental and physical health to the extent that it impacts patient care.
4. Recognize and address gender and cultural biases in themselves and others, and in the process of health care delivery.

Rationale:

Awareness of one's shortcomings, including personal philosophy, physical limitations, and personal social and ethnic biases, is essential to making an appropriate response to the great variety of individuals the physician will work with. This awareness comes from self-evaluation. Attention to the maintenance of one's own physical and mental health is fundamental to being able to provide the best care possible to the patient.

Assessment:

Preceptor evaluation of clinical practice.