



# USMLE<sup>®</sup> Physician Tasks/Competencies

A Joint Program of the Federation of State Medical Boards  
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*USMLE Physician Tasks/Competencies* provides an outline of the tasks and competencies assessed throughout the sequence of USMLE examinations.

The [USMLE content outline](#) provides a common organization of content across all USMLE examinations. Both outlines should be referenced when preparing for the examinations.

While the *USMLE Physician Tasks/Competencies* outline is common to all exams, each Step has test specifications specific to that Step. Each Step exam emphasizes certain parts of the USMLE content outline and tasks/competencies outline, and no single examination includes assessment of all topics.

Examinees should refer to the test specifications for each examination for more information about which parts of the *USMLE Physician Tasks/Competencies* outline will be emphasized in the examination for which they are preparing. See the USMLE website ([www.usmle.org](http://www.usmle.org)) for more detail.

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# USMLE Physician Tasks/Competencies

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## Medical Knowledge/Scientific Concepts

- Applying foundational science concepts

## Patient Care: Diagnosis

- History and physical examination
- Laboratory and diagnostic studies
- Diagnosis
- Prognosis/outcome

## Patient Care: Management

- Health maintenance and disease prevention
- Pharmacotherapy
- Clinical interventions
- Mixed management

## Communication

- Fostering the relationship
- Gathering information
- Providing information
- Making decisions
- Supporting emotions
- Enabling patient behaviors
- Using an interpreter or surrogate

## Professionalism, Including Legal and Ethical Issues

- Professionalism/legal/ethical issues in interactions with patients and families  
Professionalism/legal/ethical issues in interactions with patients and families related to death and dying
- Professionalism/legal/ethical issues in interactions with other health professionals

## Systems-based Practice, Including Patient Safety

- Systems-based practice
- Patient safety

## Practice-based Learning

- Understanding and application of principles of biostatistics and epidemiology
- Application of information from studies or other written material to patient care
- Understanding of the principles of research ethics and regulatory issues

The competency Medical Knowledge is used for Application of Scientific Knowledge/Foundational Science content, with the understanding that this competency is required to some degree in providing Patient Care. The competency of Patient Care is used for Diagnosis and Management with the understanding that Patient Care more broadly includes all the other competencies.

## Applying Foundational Science Concepts

Foundational Science comprises items that require understanding and application of basic science principles to answer the question.

**NOTE:** The task/competency of Applying Foundational Science Concepts tests understanding of the foundational science principles and concepts underlying disease processes and topics on the USMLE content outline that are essential for the safe and effective practice of medicine. The examples below are not exhaustive of the foundational science principles and concepts tested on the USMLE.

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Identifies the genetic mechanisms and inheritance of a given condition.

Identifies the cause/infectious agent or predisposing factor(s) or, given an effect, determines the cause.

Identifies the underlying processes/pathways/mechanisms that account for, or contribute to, the expression or resolution of a given condition.

Recognizes or evaluates given clinical or physical findings to identify the underlying anatomic structure, cell/tissue structure, or physical location.

Recognizes the mechanisms of action of various drugs; selects from an option set list of drugs based on mechanism of action.

Identifies the nutritional underpinnings of disease processes and treatment.

## Diagnosis: Obtaining and Predicting History and Physical Examination

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Knows signs/symptoms of selected disorders.

Knows individual's risk factors for development of conditions. Given current symptoms in presented history, identifies other pertinent factors in the history.

Given a specific problem, knows what to ask in obtaining further pertinent additional history.

Predicts the most likely additional physical finding; selects either the finding itself or the appropriate examination technique that would result in the finding.

## **Diagnosis: Selecting and Interpreting Laboratory and Diagnostic Studies**

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Selects most appropriate laboratory or diagnostic study, including neuropsychiatric testing, or study most likely to establish/confirm the diagnosis.

Interprets laboratory or other study findings.

Predicts the most likely laboratory or diagnostic study result.

Selects most appropriate laboratory or diagnostic study after a change in patient status.

## **Diagnosis: Formulating the Diagnosis**

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Selects the most likely diagnosis.

Assesses the developmental level of the patient.

## **Diagnosis: Determining Prognosis/Outcome**

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Recognizes factors in the history, physical or laboratory study findings that affect patient prognosis or outcome or determine therapy.

Interprets laboratory or other diagnostic study results and identifies current/future status of patient.

Recognizes associated conditions of a disease, including complications or indicators of potential complications of a given disease.

Recognizes characteristics of disease relating to natural history or course of disease, including progression, severity, duration, and transmission of disease from a specific patient.

## **Management: Health Maintenance & Disease Prevention**

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Knows risk factors for conditions amenable to prevention or detection in an asymptomatic patient, or knows the potential condition for which the patient may be at risk.

Knows pertinent incidence statistics and identifies patient groups at risk; knows incidence of symptoms/dangerous disorders among various groups.

Knows common screening tests for conditions amenable to prevention or detection in an asymptomatic patient or population.

Selects appropriate preventive agent or technique (eg, contraception, vaccines, vitamins).

Knows appropriate counseling of patient or family regarding maintenance of current and future problems, including risk factors related to present encounter.

Educates patients on screening, health maintenance, self-care.

Assesses the developmental level of a healthy patient.

Knows the indications for surveillance for recurrence or progression of disease following treatment. Monitoring chronic disease in a stable patient where a change in patient status might cause a change in therapy.

Knows appropriate long-term surveillance goals.

## **Management: Selecting and Monitoring Pharmacotherapy**

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Selects most appropriate pharmacotherapy.

Assesses patient adherence with treatment regimen, recognizes techniques to increase adherence or understanding of the disease state, and knows how adherence may be affected by providing instructions with therapy.

Recognizes factors that alter drug dosing requirements for a patient.

Knows adverse effects of various drugs, or recognizes signs and symptoms of drug (and drug–drug) interactions resulting from polypharmacy in the therapeutic regimen and knows steps to prevent polypharmacy including laboratory studies to monitor drug therapy.

Knows contraindications of various medications.

Modifies therapeutic regimen within the context of continuing care; selects appropriate modifications in therapeutic regimen.

Knows appropriate monitoring to evaluate effectiveness of drug therapy or to monitor for the adverse effects of drug therapy in a patient that has not had a recurrence or progression of disease.

## **Management: Clinical Interventions/Treatment**

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Knows most appropriate management of selected conditions, including recognizing misuse of medication or drug or alcohol use.

Knows immediate management or priority in management, specifically in emergency or acute cases.

Knows most appropriate follow-up or monitoring approach regarding the management plan.

Knows current/short-term management of patients.

Evaluates severity of patient condition in terms of need for referral for surgical treatments/procedures versus other nonsurgical options.

Knows appropriate surgical management.

Knows pre/post-surgical or procedural management.

Knows indications for admission to the hospital or to other appropriate setting (eg, ICU). Knows indications for appropriate non-hospital health care settings.

Knows most appropriate discharge planning.

Knows components of rehabilitation program.

Knows appropriate use and procedures regarding hospice care.

Educates patient or family regarding self-care.

Knows relevant roles of allied health personnel.

## **Management: Selecting Clinical Interventions (Mixed Management)**

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Selects most appropriate management option from set of mixed management options (eg, mix of diagnostic studies, pharmacotherapy, procedures, observation, or referral).

## **Communication**

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Fostering the relationship

Gathering information

Providing information

Making decisions

Supporting emotions

Enabling patient behaviors

Using an interpreter or surrogate

## **Professionalism and Legal/Ethical Issues**

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Understanding and applying principles of professionalism, legal and ethical issues in interactions with patients

- Knows the guidelines for obtaining informed consent for treatment including children and adolescents, third-party permission, and emergent situations.
- Recognizes need for third-party permission for treatment in medical emergencies.
- Knows guidelines for treatment of minors with/without notification of parents.
- Knows definitions of competence and sanity.
- Knows the guidelines for involuntary admission.
- Knows guidelines for confidentiality of medical records.
- Knows guidelines for physician–patient relationship.
- Knows issues related to cultural competence and can apply knowledge in specific patient situations.



## Understanding and applying legal and ethical issues related to death and dying

- Assesses degree of disclosure to terminally ill patients.
- Recognizes patient's right to refuse treatment or testing (patient autonomy); knows issues of advance directives and living wills.
- Assesses quality-of-life decisions.
- Knows appropriate prescriptive practices; knows appropriate use of opioids in terminally ill patients.
- Knows definition of and legal issues regarding brain death.
- Knows management of terminally ill patients related to treating chronic pain, and recognizing patient's expression of fear of pain, injury, or death; knows how to comfort patient or family during crisis such as trauma or death.

## Understanding and applying professionalism, legal, and ethical issues in dealing with physicians and other health professionals

- Knows guidelines for reporting findings to proper authorities.
- Knows Good Samaritan laws.
- Recognizes physician error and negligence.
- Recognizes and deals appropriately with impaired physician.

## **Systems-based Practice and Patient Safety**

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### Systems-based Practice

- Understands basic concepts and terminology, principles, and application of quality improvement science and outcome analysis.
- Recognizes and optimizes human and environmental factors (eg, workplace design, standardization, processes).
- Understands the role and characteristics of teams and communication strategies.

### Patient safety

- Anticipates, recognizes, analyzes, and mitigates risk (sources of error).
- Evaluates, reports, and responds to near-misses and system errors.
- Identifies sources of error and suggests appropriate measures to evaluate or reduce the likelihood of specific errors.

## Applied Biostatistics and Clinical Epidemiology

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Understanding and application of the principles of biostatistics and epidemiology

- Understands and can apply principles of epidemiology and population health, including health status indicators, outbreak investigation, points of intervention.
- Understands and can apply principles of study design and study flaws.
- Understands and can apply the principles of screening and other tests.
- Understands use and interpretation of statistical principles and measures of association.

Is able to make decisions about patient care based on results of study or other written materials

Understands the principles of research ethics and regulatory issues