NATIONAL CENTER FOR EDUCATIONAL QUALITY ENHANCEMENT

Medicine

Sector Benchmarks of Higher Education

LEPL- The Legal Entity of Public Law

2017

1. General Information

Sector Benchmark	Name	Medicine		
	Registration Number			
	Approval date			
	Validity period	7 years or more		
	Field/specialization	Health Care/Medicine		
	Name of profession	Doctor of Medicine code of ISCED-F:		
	Field of study	Medicine code of ISCO-08		
	Level of Higher Education	One cycle undergraduate Medical Education	Awarded Qualifications	Medical Doctor
		PhD		PhD in Medicine

The Purpose of Sector Benchmark

The purpose of the present sector benchmark is to support the implementation of one cycle higher education (undergraduate) program curriculum in accordance with the international standards, implementation of the methods of teaching, studying and evaluating, international recognition of graduates qualifications, mobility and establishment of the competencies which will provide to graduate with the opportunity of continuation his/her studies on the next level of higher education and the career advancement.

The main regulating documents of the field

- Law of Georgian Medical Activity 2001;
- WORLD FEDERATION FOR MEDICAL EDUCATION. Basic Medical Education. WFME Global Standards for Quality Improvement. The 2015 Revision
- CanMEDS 2015 Physician Competency Framework. 2015;
- DIRECTIVE 2013/55/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 November 2013. amending Directive 2005/36/EC on the recognition of professional qualifications and Regulation (EU) No 1024/2012 on administrative cooperation through the Internal Market Information System(„the IMI Regulation"), 2013;
- DIRECTIVE 2005/36/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 7 September 2005 on the recognition of professional qualifications,2006;
- Tomorrow's Doctors Outcomes and standards for undergraduate medical education, General Medical Council, 2009
- A TUNING Guide to Designing and Delivering an Outcomes-Based Undergraduate Medical Curriculum, 2013;

- Learning outcomes/Competences for undergraduate medical education in Europe (The Tuning Project (Medicine).MEDINE, 2008;
- Swiss Catalogue of Learning Objectives for Undergraduate Medical Training. Under a mandate of the Joint Commission of the Swiss Medical School, 2008;
- Learning Outcomes for the Medical Undergraduate in Scotland: A Foundation for Competent and Reflective Practitioners. 2007;
- WFME Global standards for quality improvement in medical education, European Specifications" (MEDINE, 2007)
- International first aid and resuscitation guidelines 2016 for National Society first aid programme managers, scientific advisory groups, first aid instructors and first responders (www.ifrc.org);
- Summary of the main changes in the Resuscitation Guidelines. ERC GUIDELINES 2015.

Description of the field

a) ***Medical practice*** – the professional activity of a person with medical background, professional skills and practical experience the aim of which is to protect, maintain and restore the health or ease suffering of a human being in accordance with medical and ethical standards and medical traditions recognized in Georgia;

Medical practice represents the important area of health care that regards not only health but life of human. The purpose of it is to maintain and improve the human health. According to the "Law of Georgia on Medical Practice" the Medical practice is "*Professional activities of a person with medical education, appropriate skills and practical experience, who aims to protect, maintain, and restore the health of human beings and relieve their suffering by applying nationally recognized medical standards and ethical norms, as well as considering medical traditions*"; (Law of Georgia on Medical Practice, Article 5)

The relevance of the Undergraduate Medical studies to the international studies as a significant prerequisite of the successful Medical practice is very common challenge while ensuring the optimal functioning of the countries' Health Care system. While running Medical practice, it is necessary to get knowledge not only in biomedical and clinical sciences, but also obtaining the clinical skills and gaining the most important ethical values and attitudes required for this profession. The competencies defined for medical school graduates in Bologna participant countries should match global standards of World Federation of Medical Education, TUNING/MEDINE requirements and comply with Georgia National Qualification framework and present document.

The possible area/areas of employment and specific requirements

1. The areas of possible employment:

The graduate of one cycle higher education program (Medical Doctor) is not granted to run the independent medical practice according to the applicable legislation, she/he can get be employed as the Junior Doctor, implying performing the duties of a doctor according to the instructions and under the responsibility of an independent medical practitioner; (The Law of Georgia on Medical Practice, Article5). A graduate holding a higher medical institution diploma shall have the right to: a) complete a postgraduate vocational training program acquire the right to perform an independent medical practice after passing a state certification examination; b) carry out research (Master, PhD degrees) and teaching activities in the theoretical fields of

medicine or other fields of health care that do not include an independent medical practice (The Law of Georgia on Medical Activity, Article 17).

2. The specific requirements:

A citizen of Georgia or of a foreign country, or a stateless person, who graduated from a state-accredited higher medical institution of Georgia and obtained a state certificate of independent medical practice under this Law ('a state certificate'), shall have the right to engage in independent medical practice.

1. The possible Structure and the Workload of Educational Program

II. Higher Educational Programs The level of higher education: **One Cycle Medical Education**

ECTS	Min 360 credits	The structure	✓	The main Specialization (Medicine)	Min 330 ECTS	Including	Compulsory and elective courses/modules and etc.
				General and/or free components	Max. 30 ECTS	Including	Compulsory and elective courses

2. The special requirements of enrolling educational programs

Do not exist

3. Field competences (knowledge and skills)

	Competence		Competences'		
	Knowledge	Practical/other skills	Specific methods of achievement	The specific criteria of demonstration	The specific methods of assessment
	Field-Specific knowledge				
	Biomedical, Behavioral, Clinical, Social, Sciences and Fundamental Principles of the field	• Biomedical Sciences • Behavioral and Social sciences • Clinical Sciences • Medicine and Prescribing drugs • Public Health • Ethics and Legal Principles of Medical Practice • The Role of the Doctor in Health Care System	Lectures, Case Based Learning (CBL), Problem Based Learning (PBL), Team working, Tutorials, Clinical Rotations at University/Teaching Hospitals, Bedside – teaching, Seminars, Role-playing, Communication (with Outpatients and Hospitalized Patients)	• **Biomedical Sciences** - The Normal Function of Human body (Physiology) - The Normal Structure of Human Body (Anatomy) - The Normal function of Humans' Metabolism and Hormones (Biochemistry) - The normal Immune Function of Human - Normal Cell Biology - Molecular Biology (Norm)	Oral/writing exam; Multiple Choice/One clue Tests; The direct observation (with report of assessment); Feedback gained from different

				- The Normal Development of Human (Embryology) • **Behavioral and Social Sciences** - Psychology - Human development (Child, Adolescence, Adult) - Sociology • **Clinical Sciences** - Pathologic Structure and Mechanism of the disease (Pathology) - Infection (Microbiology) - Immunity and Immunological Diseases - Genetics and Hereditary Diseases - Knowledge regarding Clinical Sciences in the different Medical Specializations and Sub-specializations; Clinical access and the experience gained through clinical working in the following fields of Medical Service: - Treating the patients with severe disease at the place of accidents or in the emergency department; - Conducting the treatment of internal diseases at the reception department. - Treatment of the patients with surgical needs at the reception department - Working at the first aid center - Treatment for the elderly - Child Care - Treatment of patients with terminal conditions, Palliative care - Treatment of Psychiatric Patients - Treatment of Gynecological disease, Physiological delivery management; - Treatment of critical conditions in the intensive care unit; - Treatment of various diseases (Cardiology, Nephrology, Pulmonology, etc.) - Anesthesiology	sources; Objectively Structured Clinical Exam (OSCE) - the Mini clinical exam with Standardized patients (MiniCex); Portfolio;

				- Rehabilitation Medicine - Treatment of surgical conditions of different profile (urology, traumatology); • **The Medicine and Prescribing the drugs** - The Use Antibiotics and Resistance to Antibiotics - The principles of prescribing the medicines - The side effects of medicine - Medicine interaction - Blood and blood transfusion - Drug action and pharmacokinetics - Segregated drugs • **Public Health Care** - Prevention of diseases - Lifestyle, Diet and Eating - Health Support - Screening and supervision of disease - Disability - Gender Issues in Health Care - Epidemiology - The Cultural and Ethic Influence on Health Care - Resource Distributing and Health Care Economy - Global Health and Inequality - **Ethic and Legal Principles in M**edical Practice - The rights of patients - The rights of people with disabilities - The Principles of Relations with Colleagues • The Role of Doctor in Health Care System - Legislation regarding the Medicine - The systems of Professional Regulations - The Principles of Clinic Audit	

				- The Ways of Health Care Access	
Field-Specific Competencies					
1.	**Carry out a consultation with a patient**	• take a history • carry out physical examination • make clinical judgements and decisions • provide explanation and advice • provide reassurance and support • assess the patient's mental state	Theoretical Teaching (Interactive Seminars and Lectures), Teaching in clinical and simulation environment, Clinical Based Learning (CBL), Clinical thinking (CBCR), Playing patient/doctor roles, learning at clinical environment, practical task under the supervision	• Use Patient-oriented interviewing skills for getting relevant biomedical and psychosocial information • The proper structuring and management of entire patient encounter • Inquiring the information from other sources, including the patients' family (in case the permission is granted by the patient) and its analysis • History taking, perform a physical exam, select appropriate investigations, and interpret their results for the purpose of diagnosis and management, disease prevention, and health promotion • Implement a patient-centered care plan that supports ongoing care, follow-up on investigations, response to treatment, and further consultation • Optimize the physical environment for patient comfort, dignity, privacy,engagement, and safety • Use of knowledge in Biomedicine and Clinical Sciences(regarding the patients' case) in practice • Perform appropriately timed clinical assessments with recommendationsthat are presented in an organized manner • Recognize and respond to the	Direct observing (with report of evaluation); **OSCE/Standardized Patient** Portfolio/logbook, Oral and Test exams (Multiple choice, short answers, Test) Exams, simulations, 360 evaluation scale

				complexity, uncertainty, and ambiguityinherent in medical practice • Prioritize issues to be addressed in a patient encounter • Establish a patient-centered management plan • Determine the most appropriate procedures or therapies • Prioritize a procedure or therapy, taking into account clinical urgency andavailable resources • Perform a procedure in a skilful and safe manner, adapting tounanticipated findings or changing clinical circumstances • Communicate using a patient-centered approach that encourages patient trust and autonomy and is characterized by empathy, respect, andcompassion • Share information and explanations that are clear, accurate, and timely,while checking for patient and family understanding • Assist patients and their families to identify, access, and make use of information and communication technologies to support their care and manage their health • Use communication skills and strategies that help patients and theirfamilies make informed decisions regarding their health • Recognize when the values, biases, or perspectives of patients,physicians, or other health care professionals may have an impact on thequality of care, and	

				modify the approach to the patient accordingly • Establish goals of care in collaboration with patients and their families, which may include slowing disease progression, treating symptoms, achieving cure, improving function, and palliation • Manage disagreements and emotionally charged conversations • Disclose harmful patient safety incidents to patients and their families accurately and appropriately • Incorporate disease prevention, health promotion, and health surveillance into interactions with individual patients • Work with patients to address determinants of health that affect them and their access to needed health services or resources • Work with patients and their families to increase opportunities to adopt healthy behaviors • Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, humility, commitment, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality • Recognize and manage conflicts of interest • Adapt to the unique needs and preferences of each patient and to his or	

				her clinical condition and circumstances • Facilitate discussions with patients and their families in a way that is respectful, non-judgmental, and culturally safe	
2.	**Assess clinical presentations, order investigations, make differential diagnoses, and negotiate a management plan**	• recognize and assess the severity of clinical presentations • order appropriate investigations and interpret the results • make differential diagnoses • negotiate an appropriate management plan with patients and carers • take care of a terminal patient and his family members • manage the chronic disease	Inter-active Lectures, seminars among them the Problem Based Learning (PBL) and Cased Based Learning (CBS), Clinical Thinking (CBCR), Playing patient/doctor roles , Teaching in clinical environment	• Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice • Demonstrate effective appropriate and timely consultation of another health professional as needed for optimal patient care • Select medically appropriate investigative methods in a resource-effective and ethical manner • Demonstrate effective clinical problem solving and judgement to address patient problems, including interpreting available data and integrating information to generate differential diagnoses and management plan • Gets appropriate informed consent for diagnostic and treatment procedures in accordance with the regulations • Works out the management plan in collaboration with patient and their family • Determine when care should be transferred to another physician or health care professional • Acknowledges the necessity of care the patients in the terminal conditions; knows what can be offered by palliative care, who can provide it	OSCE/**Standardized Patient** Portfolio/log book, Oral and Test (Multiple choice, short answers, Test) Exams, simulations, 360 evaluation scale,

				and to whom • Demonstrates the knowledge how can patient, family members and other professionals be involved in palliative care. • Considers the patients' age, the nature of chronic disease, psychological impact, appropriate use of drugs in relevant way while managing the chronic diseases	
3.	**Providing first aid in emergency medical situations (First aid and resuscitation measures)**	• Identifying and assessing the emergency medical conditions (DRSABCDE) • Treatment of emergency medical conditions • Providing with first aid; age peculiarities in newborns and children; • Conducting the basic life maintaining and cardiopulmonary resuscitation activities in compliance with the guidelines. • Conducting the activities for enhance lifetime maintenance in accordance with the guidelines. • Treatment of traumas according to the guidelines.	Studying video movies, teaching by using the simulations. Team working with resuscitative patient, bedside –teaching, Clinical rotation in Clinical skills training and simulation center.	• Assessing the clinical signs and starting the emergency aid with the principle of DRSABCDE; • Diagnosing and Managing the Severe emergency situations • First emergency aid • Basic life maintenance aid • Conducting cardiopulmonary resuscitation or holding the resuscitation activities with the principle of team working • First emergency aid and Trauma management	One clue/multiple choice Tests, Objectively structured Clinical Exam (OSCE); Mini Clinical Exam (MiniCEX) Portfolio

4.	**Drug prescription**	• Prescribe drugs clearly and properly with consideration of patient's age. • Match appropriate drugs with clinical context. • Review appropriateness of drugs and other therapies and evaluate potential benefits and risks for the patient • Treat pain and distress • Consider compatibility of drugs before initiation of treatment.	Lectures, Case based learning (CBL), Tutorials, Seminars, Role play, communication with patients (outpatients and inpatients), Bedside-teaching, Clinical rotations in University and teaching clinics	• Establish an accurate drug history, covering both prescribed and other medication. • Plan appropriate drug therapy for common indications, including pain and distress. • Provide a safe and legal prescription. • Calculate appropriate drug doses, define administration ways and record the outcome accurately. • Provide patients with appropriate information about their medicines. • Access reliable information about medicines. • Detect and report possible drug-drug interactions and adverse drug reactions. • Transfusion of blood and blood products. • Demonstrate awareness that many patients use complementary and alternative therapies, and awareness of the existence and range of these therapies, why patients use them, and how this might affect other types of treatment that patients are receiving.	Oral examination, **Multiple-choice questions, Objective Structured Clinical Examination (OSCE),** Mini clinical evaluation exercise (MiniCEX)
5.	**Conducting Practical Procedures**	• Vital Signs: Pulse, respiration, temperature • Measure Blood pressure • Venipuncture • Venous Catheterization • Drug injection into the vein and us of infusion device • Subcutaneous and intramuscular injection • Oxygen delivery, • Patient Transportation and Treatment • Suturing • Urinary Catheterization • Urinalysis • Electrocardiography • Electrocardiography	Teaching using simulators, Scenarios based simulation training, Practice(with Outpatients and Hospitalized Patients), (bedside-teaching) Clinical rotations at University/teaching hospitals, Clinical Skills Training Simulation Centers or at the relevantly equipped learning environment	• Vital Signs: Pulse, respiration, temperature • (Independently); • Blood pressure (Independently); • Venipuncture (through using simulators) • Venous Catheterization (through using simulators) • Drug injection into the vein and us of infusion device (into the simulator or under the guidance); • Subcutaneous and intramuscular injection into the simulator or under the guidance); • Oxygen delivery (independently); • Patient Transportation and Treatment (independently);	**Objective Structured Clinical Exam (OSCE),** Mini Clinical (MiniCEX), Portfolio Performing of practical procedures will be assessed according to the scoring ranking of sequential list of the each conducted procedures

		Interpretation • .Performing Respiratory Function Test		• Suture (on the simulator); • Urinary Catheterization (Through using simulators); • Urinalysis • (Screening Tests–Dipstick); • Electrocardiography (Independently); • Electrocardiography Interpretation (independently); • Respiratory Function Test (Independently)	(the so called Check List)
6	**Communicate effectively in a medical context**	• Communicate with patient • Communicate with colleagues • Communicatein breaking bad news • Communicate with patient's relatives • Communicate with disabled peoples • Communication in seeking informed consent • Written communication (Including the medical records) • Communicate in dealing with aggression • Communicate with those who require an interpreter • Communicate with law enforcement agencies and mass media • Effective communication with any person regardless of his/her social, cultural, religious and ethnic background	Case Based Learning (CBL), video movies, role play, standardized patients, communication with patients (outpatients and inpatients), bedside-teaching, Clinical rotations	• Communicate using a patient-centred approach that encourages patienttrust and autonomy and is characterized by empathy, respect, andcompassion • Optimize the physical environment for patient comfort, dignity, privacy,engagement, and safety • Recognize when the values, biases, or perspectives of patients,physicians, or other health care professionals may have an impact on the quality of care, and modify the approach to the patient accordingly • Respond to a patient's non-verbal behaviours to enhance communication • Manage disagreements and emotionally charged conversations • Adapt to the unique needs and preferences of each patient and to his or her clinical condition and circumstances • Use patient-centred interviewing skills to effectively gather relevantbiomedical and psychosocial information • Provide a clear structure for and manage the flow of an entire patientencounter • Seek and synthesize relevant information from other sources, includingthe patient's family, with the patient's consent • Share information and explanations that are clear, accurate, and timely,while checking for patient and family understanding	Communicat e effectively in a medical context

				• Disclose harmful patient safety incidents to patients and their familiesaccurately and appropriately • Facilitate discussions with patients and their families in a way that isrespectful, non-judgmental, and culturally safe • Assist patients and their families to identify, access, and make use ofinformation and communication technologies to support their care andmanage their health • Use communication skills and strategies that help patients and theirfamilies make informed decisions regarding their health • Document clinical encounters in an accurate, complete, timely, andaccessible manner, in compliance with regulatory and legal requirements • Communicate effectively using a written health record, electronic medical record, or other digital technology • Share information with patients and others in a manner that respects patient privacy and confidentiality and enhances understanding	
7.	The use of Ethic and Legal Principles in Medical Practice	• Keep confidentiality • The use of Ethical principles and analytical skills in treatment process • Get the informed consent and make an appropriate record • Issuing death certificate • Requiring autopsy (in compliance with the Georgian Legislation) • Apply Georgian and international legislation during treatment • Conducting medical	Lecture, Case Based Learning (CBL), Case Based Clinical Reasoning (CBCR), tutorials, seminars, role plays, communication with patient (Ambulant and Stationary patient), bedside-teaching, Clinical rotations	• Acknowledges the highest responsibility of doctor to take care of each patient and public health with defending the ethic principles in accordance with the Georgian legislation. • Awareness of ethic principles and theories, identifying the ethic dilemmas, find the ways of solution. • Respect the rights and dignity of patients, including the right of participation in decision making regarding the medical aid. Demonstrating the knowledge regarding the importance of informative permission while conducting the medical service. • Delivering the valid permission from the patient and making the relevant notes	**Oral/writing exam (Analyzing the Clinical case, multiple choice/one clue Tests) Objectively Structured Clinical Exam** (OSCE), Mini Clinical Exam

		practice in multi-cultural environment		• Demonstrating the obligation regarding protecting the privacy of patient	(MiniCEX)
8.	**Evaluation of psychological and social aspects regarding patients' disease.**	• Evaluating the psychological factors of disease detection and impacts on the patients • Evaluating the social factors of disease detection and impacts on the patients • Recognition of the stress related to disease • Recognition of the drug and alcohol abuse	Case Based Learning (CBL), Case Based Clinical Reasoning (CBCR), learning video movies, seminars, teaching through standardized patients, Communication with patient (Outpatients and Hospitalized Patients), bedside-teaching, Clinical rotations	• Finding the relevant information from different sources (including patients families) and collating them with considering the needs and clinical conditions of the patients • Demonstrating the patient oriented skills of the interviewers for gathering the psychosocial and biomedical information • Considering the patients' nonverbal behaviors for detecting the psychosocial factors related to the disease. • Managing the conditions of the patient (in case of opposing) in accordance with the distinct, structured plan. • Conducting the conversation with patients and their families without critics and with respect, also considering cultural characteristics (safety)	**Multiple choice/one clue Tests) Objectively Structured Clinical Exam** (OSCE), Mini Clinical Exam (MiniCEX)
9.	**The use of knowledge, skills and principles based on evidence**	• The use of evidence in practice • Determining and conducting the relevant literature research • Critical analysis of the published literature, making conclusion and using them in practice	Problem Based Learning (PBL), Case Based Learning (CBL), Case Based Clinical Reasoning (CBCR), learning video movies, seminars, teaching through standardized patients, Communication with patient (Outpatients and Hospitalized Patients), bedside-teaching, Clinical rotations	• Identifying and filling the gaps in their knowledge and medical activities • The use of evidence in decision making process • Critical assessment of the health care literature in relation to honesty, trust and its use in medical practice • Determining the scientific/clinical problem, putting the relevant questions and finding the answer in relevant literature through using the appropriate information sources. Choosing the relevant method of problem solving • The active use of evidences obtained through different literature sources and making the conclusions regarding the health conditions of patient on the basis of assessing the quality of evidences • Discussing the evidences with colleagues and other health care specialists while making clinical decision. • Considering the scientific values and principles of research and	

				demonstrating the importance of research evidences in health care. • Identifying the ethic principles of research and their inclusion in obtaining the informative permission through consideration the estimated damage and benefit, also through taking into account socially unprotected inhabitants. • Reporting the results of the research to professional and non-professional community (including the patients and their family members) • Supporting the process of research work.	
10.	**Use information and information technology effectively in a medical context**	• Keep accurate and complete clinical records • Use computers in medical practice • Access specific information sources; • Store and retrieve information • Keep personal records (portfolio)	Practice in Medical settings (outpatients and inpatients), maintaining medical documentation (Including by the means of information technologies), bedside-teaching, clinical rotation	• Keep accurate, legible and complete clinical records. • Make effective use of computers and other informationsystems, including storing and retrieving information. • Keep to the requirements of confidentiality and dataprotection legislation and use classifier of practical activities while dealing with information. • Access information sources and use the information in relation to patient care, health promotion, giving advice and information to patients, and research and education. • Apply the principles, methods and knowledge of health informatics to medical practice.	Oral examination, Multiple-choice questions, scientific presentation, Mini clinical evaluation exercise (MiniCEX), Portfolio
11.	**Ability to apply scientific principles, method and knowledge to medical practice and research**	• Knowledge of research conducting methodology; • Research designing, planning, result processing and conclusion-making skills • Ability to use the achievements of biomedicine in practice • Report/review writing skills based on critical	Problem Based Learning (PBL), Case Based Learning (CBL), Case based clinical reasoning (CBCR), Tutorials, participating in scientific research, teaching research skills, bedside-teaching, Clinical rotations.	• Demonstrate an understanding of the scientific principles of research and scholarly inquiry and the role of research evidence in health care • Identify ethical principles for research and incorporate them into obtaining informed consent, considering potential harms and benefits, and considering vulnerable populations • Contribute to the work of a research program • Pose questions amenable to scholarly inquiry and select appropriate	Oral/written examination, Questions with one or multiple answers, scientific presentation, Portfolio

		analysis of the research literature in biomedicine • The awareness of ethics of conducting scientific research.		methods to address them • Summarize and communicate to professional and lay audiences, including patients and their families, the findings of relevant research and scholarly inquiry	
12	**Implementation of health promoting events, engage with public healthcare issues, efficient performance within the healthcare system**	• Conducting the treatment that minimizes the risk of damage to the patient. • Implement measures for the prevention of infection spread • Understanding ones' own health problems and evaluating ones' own health with regard to professional responsibilities; • Participation in health promotion events both on individual and population-wide level	Lecture, Case Based Learning(CBL), seminars, practice with patients (Outpatients and Hospitalized Patients), Clinical rotations	• Facilitating the culture of patients' safety • Analyzing the cases of patients' safety for further improving the service system • The use of medical information science for the improvement of medical service ad optimization of patients' safety • Distribution the healthcare recourses for optimal care of patients • The use of evidence and process management for achieving the efficient medical service • Demonstrating the leadership skills for the improvement of healthcare system • Facilitating the changes in healthcare system for strengthening the services and improving the results. • Determining the priorities and time management for the integration of practice and personal life • Career and practice Management • Implementation of processes for the improvement of personal practice	Oral/written examination, Questions with one or multiple answers, scientific presentation, Portfolio

				• Working with patients in regard the health determinants, which have the impact on them and the essential medical service and the access to the medical resources. Working with patients and their families for enhancing the healthy behaviors. • Implementation of supervising the disease prevention, facilitating health during the process of interaction with patient. • Working with community or population to identify the health determinants having the impact on them. • The use of continuous process of quality improvement in order to improve clinical practice with regard to the prevention of diseases, health promotion and supervision of diseases. • Contributing to the improvement of community and population health.	
13	Professionalism	**Professional attributes** • probity, honesty, ethical commitment • commitment to maintaining good practice, concern for quality • critical and self-critical abilities, reflective practice • empathy • creativity • initiative, will to succeed • interpersonal skills **Professional working** • ability to recognize limits and ask for help • ability to work	*Theoretical and practical teaching* – Problem Based Learning (PBL), Case Based Learning (CBL), Clinical Thinking (CBCR), tutorials, learning video movies, seminars, practice with patients (Outpatient and Inpatient), Clinical rotations.	**Professional attributes** • Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, humility, commitment, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality • Demonstrate a commitment to delivering the highest quality care and maintenance of competence • Recognize and respond to ethical issues encounter in practice • Recognize and manage conflicts of interest • Exhibit professional behaviors in the use of technology-enabled communication • Regular considering and assessing ones' own activities through using different internal and external data sources for the purpose of	Direct observation (with in-training evaluation report); **Portfolio/log-book,** Oral and written Tests (Multiple choice, scientific presentations, Test) Exams, simulations 360 - degree evaluation

		autonomously when necessary · ability to solve problems · ability to make decisions · ability to work in a multidisciplinary team · ability to communicate with experts in other disciplines · ability to lead others · capacity to adapt to new situations · capacity for organisation and planning (including time management) **The doctor as expert** · capacity for analysis and synthesis · capacity to learn (including lifelong self-directed learning) · capacity for applying knowledge in practice · ability to teach others · research skills **The global doctor** · appreciation of diversity and multiculturality · understanding of cultures and customs of other countries · ability to work in an international context · knowledge of a second language · general knowledge outside medicine		detecting the teaching and improving of capabilities • Communicate using a patient-centred approach that encourages patient trust and autonomy and is characterized by empathy, respect, and compassion • Optimize the physical environment for patient comfort, dignity, privacy, engagement, and safety · Recognize when the values, biases, or perspectives of patients, physicians, or other health care professionals may have an impact on the quality of care, and modify the approach to the patient accordingly • Innovative use of knowledge, technology and methodology • Self-confidence, initiative and pragmatism; • Short-term and long-term career plans, purposefulness and working in terms of realistic development plans and relevant activities. • Positive communication with doctors and colleagues for supporting the collaborative management of patients • Participation in professional social life through using professional and other work frames • • Relationships with physicians and other colleagues for supporting patient collaboration management; • Agreement of overlapping and general responsibilities with physicians and other colleagues of healthcare systems in current and episodic management of patient; • Participation in joint decision making with physicians and other colleagues; • Esteem of colleagues; • Strategies of mutual understanding, management of differences and	

				solving conflicts for supporting collaborative culture; • When should the patient management be transfer to other physician or other specialist; • Verbal and written communication for safe transferring the patient to other specialist, other environment and other level of management. Professional Working: • Agreement of overlapping and general responsibilities with physicians and other colleagues of healthcare systems in current and episodic management of patient; • When should the patient management be transferred to other physician or other specialist; • Realizes self-expertise limits and demonstrates need of inclusion of other specialist for patient's optimal care; for effective, corresponding and timely consultation; • Defines need of transferring the patient to another physician or professional for care, • Making decision together with colleagues; • In response to patient's problem demonstrates skills of solving clinical problems and making decisioneffectively; makes differential diagnosis, develops management plan with interpretation of existing data and integration of information; • Determination of problem, data analysis and interpretation, overcoming informative and personal limitations and making corresponding decision; • In corresponding time frame does patient assessment and gives recommendations represented in organized manner; • realizes and responds complex, ambiguous situations frequently existing in medical practice; • Working in multidisciplinary team,	

				realizing competencies of self and others, assessment of individual patient (or the group of patients) with others, integrated planning and delivery of management; • Participation in meetings of inter-professional teams; • Principles of group dynamics, respecting team ethical issues, confidentiality; • Performing the role of leader in corresponding situation in healthcare group; • Supporting changes for improvement of medical services and results; • In context of patient care working with the group of professionals (as undergraduate student) for development of team-working, leadership and facilitation; • Collaborate with colleagues in other organizations; • Determination of priorities, including time-management, patient care, balance between requirements of practice, other activities and personal life; The Doctor as Expert • Curiosity and skills of asking questions for rational use in corresponding events and processes; • Development of personal learning plan, implementation, monitoring and revision for improvement of professional practice; • Responsibility of collaborative learning in purpose of improvement of personal practice and contribution in joint improvement of practice; • Practical use (in relation with patient case) of knowledge in biomedical and clinical sciences; • In the framework of formal, informal and hidden – curriculum realizing its impact on student; • Assisting safe learning environment; • Patient safety is kept when the	

				student is included in patient care; • Planned and delivered learning activity; • Feedback for learning; • Assessment of students, teachers and program in the manner corresponding to education; • The part of research scientific principles, scientific search and scientific evidence in healthcare; • Identification of research ethical principles and including it into informed consent considering potential harms and benefits considering vulnerable population; • Contribution to working at research program; • Making valuable questions for research and choosing corresponding methods for it; • Summarizing corresponding research results and discoveries with professionals and other society including patients and their families. Global Doctor • Respecting different culture, opinions, concepts and practices relative to human body and healthcare system; • Knowledge of foreign language for communication in professional context; • Realizing the culture and habits of other countries; • General (non-medical) knowledge.	

2. Requirements for Educational Program Resources

3.1 Requirements for Human Resources

Aspect N.	

	Field Certificate, license, the document proofs the special training and etc. that has be possessed by the implementer of training course/etc.
The Implementers of Clinical Disciplines	Certificate of relevant and adjacent specialty

3.2. Requirements for material resources

Aspect N.	Special Requirements
	University/Training Clinic and/or Affiliated Clinic (on the basis of agreement)
	Clinical Skills Center/Lab (Private or on the basis on agreement)
	Training Lab

4. Additional Information

1) The way to increase the quality of medical education is an integrated curriculum. The curriculum implies the integration of fundamental and clinical objects (vertical and horizontal integration. Single modules of different courses are created during the horizontal integration. It is necessary to involve clinical subjects in the first year of study. Integrated curriculum enables us to avoid fragmentation of knowledge and to develop independent clinical thinking from early stages. The curriculum of the educational program can be partly integrated. The fully integrated curriculum includes only trans-disciplinary modules, while partial integration curriculum consists of separate disciplines as well as integrated modules.

2).The curriculum should include elective subjects, the number of which should be gradually increased in the last courses of study.

3). The list of training courses for specific educational programs will be different from the institutional context, but there are common competences that form the basis for formation of a Medical Doctor. At the same time, it is necessary to cover at least 20 credits for clinical skills and at least 10 credits for scientific skills in a curriculum, within six years of study.

4) The educational program should include compulsory or elective courses that do not belong to the core specialty component (maximum within 30 ECTS).

5) Basic specialty optional section includes basic specialties - training courses / modules / etc related to the field of medicine, which will facilitate performing the professional duties and / or expand competencies in medicine.

6) The practical component of educational program implies:

 Working practice– the practice considered in the core specialty component of educational program for the purpose of practical skills development

7) The relevant teaching methods of integrated curriculum implies problem and case based learning (PBL, CBL). PBL's advantage is to learn independently of solving problems and acquire cooperative learning skills compared to the traditional way of learning, which is very important for successful doctor's professional activities. The most important requirement for integrated learning is the initial involvement of the student in

scientific research. The research component is provided in an integrated curriculum. The role of students in the study increases gradually. It is important that students learn not only critically assessing scientific information, but also basic principles of research organization, management, analysis, and outcomes.

8) Integrated education from the very first year of study implies the development of clinical skills by students. The complexity of skills increases during moving from one course to another. The curriculum will determine the list of skills that students must obtain in the learning process. The existence of appropriate clinical skills centers and multi-profile clinical bases is essential for developing clinical skills. Implementation of integrated learning implies the introduction of new methods of student evaluation (OSCE, Portfolio).

OSCE - Objective structured clinical examination - It is widely used today to evaluate the clinical competence of students and residents in many higher medical colleges around the world. During the OSCE examination, students demonstrate clinical skills with the use of simulators or patient performers. OSCE is recognized as one of the key standards of medical education by the World Federation of Medical Education and the World Health Organization;

• Portfolio - is one of the modern methods of student activity assessment and includes:

A) The quality of the independent work performed by the student;

B) Student intelligence and independent activity assessment;

C) Documents reflecting the activities of the student from 1th to 6th courses.

The portfolio has a significant impact on the ongoing assessment of student academic achievements, as it objectively and substantively reflects the student's clinical thinking, skills, strengths and weaknesses in general professional development, reveals its shortcomings and ways to correct them.

9) Assessment of learning outcomes at the completion of the study program implies not only theoretical knowledge but also assessing the practical skills. Recommendations on assessing learning outcomes and competences are detailed in WFME and MEDINE's Joint Document - "Global Standards for Improvement of Quality of Medical Education in accordance with the European Specificity".

10) Clinical skills are very important. In this regard, different complexity simulators and computerized learning programs should be used to describe real disease, diagnostic or medicinal procedure. The use of virtual learning methods facilitates the protection of patients' safety, especially the health care institutions from large groups of students who often do not have any clinical abilities, especially in the preliminary stage of study, through direct contact with the patient. At the end of the educational program graduates should be able supervised.

11) General Competences for Educational Program Graduates:

• Analysis and synthesis ability - Critical assessment of complex, incomplete and contradictory data, their independent analysis, conveying the results of analysis, and then use them. Can critically approach to new information, analyze, summarize, integrate, conclude the various data, bring evidence and / or arguments in the analysis of the results obtained.

• Information management - can obtain information from various sources, develop large-scale information and critically evaluate it. Ability to use information collected during professional activities.

• Problem solving / decision making - Independently able to define complex problems, determine ways of solving it, analyzing the expected outcomes and final decision making.

Knows and uses additional resources effectively within the limits of his/her own specialty.

• Team-work skills - Ability to work in the group as a member and leader. Can clearly formulate tasks, agree with group members, coordinate their activities and adequately assess the capabilities of group members, manage conflicting and emotional situations.

• Communication skills, including a foreign language - having the ability to listen, ask questions, and nonverbal communication.

• Ability to take part in meetings and convey the opinions both in oral and writings. Can negotiate in the professional context and participate in resolving conflicts.

• The skill of permanent renewal of learning / knowledge - can use full spectrum of educational and

Achievement of field-specific competences according to teaching years (recommendations)
Sample/example

1. Consulting the patients

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informational resources, manage their own learning process. Understanding the necessity of sustainable renewal of knowledge; He/she has the ability to objectively evaluate the knowledge and skills.

• Ability to adapt to a new environment – practical skills to work with colleagues, professional subordination / adaptation skills

• Ability to use new technologies.

• Ability to work independently – Time Management skills, selecting priorities, meeting deadlines and getting the work done. Ability to properly arrange the business related resources. He/she is accountable for the work done and has the ability to assess and critically analyze it.

to demonstrate clinical skills generated in their learning process independently, through simulators or

Achievement of Field-Specific Competencies throughout 6 years of study (example)

1. Consulting Patients

Years of Teaching	Studying courses/ integrated modules	Learning outcome	Forms of teaching	
1	Medical ethics, behavioral science, introduction in clinical medicine, clinical skills.	• History taking; • Supporting patients and defending their rights.	Lecture, practical studies, role plays, videos for studying, PBL, communication with patients	Ora
2	Introduction in clinical medicine, medical psychology, clinical skills.	• History taking; • Giving definition and advice; • Supporting patients and defending their rights.	Lecture, practical studies, role plays, videos for studying, PBL, communication with patients	Ora
3	Propaedeutic (introductory course)/ physical diagnosis, surgery, clinical skills.	• History taking; • Physical check-up; • Clinical reasoning and decision making; • Giving explanation and advice; • Supporting patients and defending their rights.	Lecture, practical studies, working with patients, cases based learning /case based clinical reasoning (CBI, CBCR)	Tes
4	Internal medicine, surgery, urology, otolaryngology, pediatrics, dermatology, neurology, obstetrics and gynecology, clinical skills.	• History taking; • Physical check-up; • Clinical reasoning and decision making; • Giving explanation and advice; • Supporting patients and defending their rights.	Lecture, practical studies, cases based learning /case based clinical reasoning (CBI, CBCR), clinical rotations.	Tes
5	Internal medicine, surgery, traumatology, gynecology, oncology, neurosurgery, contagious diseases, ophthalmology, medical law, urgent care medicine, psychiatry.	• History taking; • Physical check-up; • Clinical reasoning and decision making; • Giving explanation and advice; • Supporting patients and defending their rights; • Assessment of psychological status of a patient.	Lecture, practical studies, clinical rotations, bedside teaching.	Tes po
6	Internal medicine, family medicine, rehabilitation and sport medicine, surgery, pediatrics, geriatrics, obstetrics and gynecology, oncology.	• History taking; • Physical check-up; • Clinical reasoning and decision making; • Giving explanation and advice; • Supporting patients and defending their rights; • Assessment of psychological status of a patient	Clinical rotations, bedside teaching.	Tes po

2. Assessment of clinical case, sending for medical examination, making differential diagnosis, discussion about the guideline for disease management

Years of Teaching	Studying courses/ integrated modules	Learning outcome	Forms of teaching	Assessment of learning outcomes
1	Introduction in clinical medicine, clinical skills, medical ethics, behavioral science, anatomy, physiology, histology, cellular and molecular biology, biophysics, genetics.	• Communication and contact with patients; • To find out the interaction between the symptoms and basic knowledge(in anatomy, physiology, biochemistry etc.) of disease • Knowledge of usage of patient's rights while considering clinical cases.	Lecture, practical studies, problem based learning, videos for learning, communication with patients, role plays	Oral/test exam, OSCE (communication with standardized patient).
2	Introduction in clinical medicine, clinical skills, medical psychology, anatomy, physiology, biochemistry, immunology, microbiology, histology, general pharmacology.			
3	Propaedeutic/ physical diagnosis, surgery, clinical skills, pathology, pharmacology, laboratory medicine, radiology	• Acknowledgement of difficulty of clinical image of disease; • Making differential diagnosis; • Taking care of patients being in terminal condition and their families.	Lecture, practical studies, case-based learning (CBL), case-based clinical reasoning (CBCR), learning with usage of simulators, communication with patients.	Test exam, OSCE – with help of simulators and/or standardized patients
4	Internal medicine, surgery, urology, otolaryngology, pediatrics, dermatology, neurology, social health care, obstetrics and gynecology, clinical skills.	• Acknowledgement of difficulty of clinical image of disease; • Making differential diagnosis; • Discussion of the guideline for disease management with patient and nurses; • Taking care of patients being in terminal condition and their families.	Lecture, practical studies, learning with usage of simulators, bedside teaching, clinical rotations.	Test exams, OSCE – with help of simulators and/or standardized patients.
5	Internal medicine, surgery, traumatology, oncology, neurosurgery, infectious diseases, ophthalmology, justice in medicine and medical judiciary, urgent medicine, psychiatry, clinical skills.	• Acknowledgement of difficulty of clinical image of disease; • To send for proper check-up and interpret the results; • Making differential diagnosis; • Discussion of the guideline for disease management with patient and nurses; • Taking care of patients being in terminal condition and their families.	Lecture, practical studies, learning with usage of simulators, bedside teaching, clinical rotations.	Test exam, OSCE – with help of simulators and/or standardized patients, MiniCEX – mini-clinical exam.
6	Internal medicine, family medicine, rehabilitation and sport medicine, surgery, pediatrics, geriatrics, obstetrics and gynecology, oncology.	• Acknowledgement of difficulty of clinical image of disease; • To send for proper check-up and interpret the results; • Making differential diagnosis; • Discussion of the guideline for	Lecture, learning with usage simulators, bedside teaching, clinical rotations.	Test exam, OSCE – with help of simulators and/or standardized patients, MiniCex.

		disease management with patient and nurses; • Taking care of patients being in terminal condition and their families. • Management of chronic diseases.		

3. To provide service for urgent medical condition (first aid and resuscitation measures)

Years of Teaching	Studying courses/ integrated modules	Learning outcomes	Forms of teaching	Assessment of learning outcomes
1	Introduction in clinical medicine, clinical skills	• To give basic first aid	Practical studies, tutorials, videos for learning, role-plays, learning with help of simulators.	OSCE
2	Introduction in clinical medicine, clinical skills			
3	Propaedeutic/physical diagnosis, clinical skills	• Finding out urgent medical condition and its assessment • To give basic first aid	Practical studies, tutorials, videos for learning, role-plays, learning with help of simulators.	OSCE
4	Internal medicine, surgery, clinical skills.	• Finding out urgent medical condition and its assessment • To give basic first aid • To perform measures based on life support guidelines and cardiopulmonary resuscitation.	Practical studies, learning with help of simulators, bedside teaching, clinical rotations.	OSCE, portfolio
5	Clinical skills, internal medicine, surgery, traumatology, neurosurgery.	• Finding out urgent medical condition and its assessment • To give basic first aid • To perform measures based on life support guidelines and cardiopulmonary resuscitation. • Treatment of traumas in accordance with the guideline.	Practical studies, learning with help of simulators, bedside teaching, clinical rotations.	OSCE, portfolio, test exam
6	Clinical skills, internal medicine, family medicine, surgery.	• Finding out urgent medical condition and its assessment • Treatment for urgent medical condition • To give basic first aid • To perform measures based on life support guidelines and cardiopulmonary resuscitation. • To perform expanded	Bedside teaching, clinical rotations.	OSCE, portfolio.

		measures according to life support guidelines. • Treatment of traumas in accordance with the guideline.		

4. Knowledge of prescription making

Years of Teaching	Studying courses/ integrated modules	Learning outcomes	Forms of teaching	Assessment of learning outcomes
1		Is not taught		
2	General pharmacology, introduction in clinical medicine.	To relate drugs and their curing measures to appropriate clinical context	Lectures, workshops, problem based learning (PBL)	Oral or test exam
3	Propaedeutic/diagnosis, surgery, specialized pharmacology, laboratory medicine.	Writing accurate and clear prescription. To relate drugs and their curing measures to appropriate clinical context	Lectures, practical works, clinical case-based learning (CBL), case-based clinical reasoning (CBCR).	Oral or test exam, OSCE
4	Internal medicine, surgery, urology, otolaryngology, pediatrics, dermatology, neurology, obstetrics and gynecology.	Writing accurate and clear prescription. To relate drugs and their curing measures to appropriate clinical context; Analyzing relevance of drug and other type of treatment and assessment of risks and potential benefits.	Lectures, practical works, case-based learning (CBL), case-based clinical reasoning (CBCR), clinical rotations.	Oral or test exam, OSCE.
5	Internal medicine, surgery, traumatology, oncology, neurosurgery, contagious diseases, ophthalmology, urgent care medicine, psychiatry	Writing accurate and clear prescription. To relate drugs and their curing measures to appropriate clinical context; Analyzing relevance of drug and other type of treatment and assessment of risks and potential benefits. Treatment of pain and distress.	Lectures, practical works, bedside teaching, clinical rotations.	Test exam, OSCE, MiniCEX.
6	Clinical pharmacology, internal medicine, family medicine, rehabilitation and sport medicine, surgery, pediatrics, geriatrics, obstetrics and gynecology, oncology	Writing accurate and clear prescription. To relate drugs and their curing measures to appropriate clinical context;	Lectures, practical works, bedside teaching, clinical rotations.	Test exam, OSCE, MiniCEX.

		Analyzing relevance of drug and other type of treatment and assessment of risks and potential benefits. Treatment of pain and distress. Taking into account compatibility of drugs while prescribing them.		

5. Performance of practical procedures

Years of Teaching	Studying courses/ integrated modules	Learning outcomes	Forms of teaching	Assessment of learning outcomes
1	Clinical skills, introduction in clinical medicine, medical ethics.	• Definition of vital signs (pulse, breath, temperature – independently); • Measurement of blood pressure (independently); • Giving oxygen (independently);	Practical works, videos for learning, role-plays, learning with usage of simulator.	OSCE
2	Clinical skills, introduction in clinical medicine, medical ethics.	• Measurement of blood pressure (independently); • Definition of vital signs (pulse, breath, temperature – independently); • Venipuncture (on simulator); • Under skin and intramuscular injection(on simulator on under supervision); • Giving oxygen (independently); • Transportation of patients and taking care of them (independently);	Practical works, videos for learning, role-plays, learning with usage of simulator.	
3	Propaedeutic/diagnosis, clinical skills, general pharmacology, laboratory medicine.	• Definition of vital signs (pulse, breath, temperature – independently); • Measurement of blood pressure (independently); • Venipuncture (on simulator); • Under skin and intramuscular injection(on simulator on under supervision); • Giving oxygen (independently); • Transportation of patients and taking care of them (independently); • Stitching up the wound(on simulator); • Doing urine test (independently); • Doing electrocardiography (independently);	Practical works, videos for learning, role-plays, learning with usage of simulator.	OSCE
4	Internal medicine, surgery, clinical skills, urology, otolaryngology, pediatrics, dermatology,	• Definition of vital signs (pulse, breath, temperature – independently); • Measurement of blood pressure (independently);	Practical works, learning with usage of simulators, bedside teaching	OSCE, portfolio.

	neurology, obstetrics and gynecology.	• Venipuncture (on simulator); • Under skin and intramuscular injection(on simulator on under supervision); • Giving oxygen (independently); • Transportation of patients and taking care of them (independently); • Stitching up the wound(on simulator); • Catheterization of a urinary bladder (on simulator); • Doing urine test (independently); • Doing electrocardiography (independently); • Functional test of respiratory system (independently).		
5	Internal medicine, surgery, traumatology, oncology, neurosurgery, contagious diseases, ophthalmology, justice in medicine and medical judiciary, urgent medicine, psychiatry.	• Definition of vital signs (pulse, breath, temperature – independently); • Measurement of blood pressure (independently); • Venipuncture (on simulator); • Inserting catheter in a vein (on simulator); • Injection of curing substances in a vein and usage of equipment for infusion (on simulator or under supervision); • Under skin and intramuscular injection(on simulator on under supervision); • Giving oxygen (independently); • Transportation of patients and taking care of them (independently); • Stitching up the wound(on simulator); • Catheterization of a urinary bladder (on simulator); • Doing urine test (independently); • Doing electrocardiography (independently); • Interpretation of electrocardiography (independently); • Functional test of respiratory system (independently).	Lectures, practical works, learning with patients (outpatients and inpatients), learning with usage of simulators, clinical rotations.	OSCE, MiniCEX, portfolio.
6	Internal medicine, family medicine, clinical skills, rehabilitation and sport medicine, surgery, pediatrics, geriatrics, obstetrics and gynecology, clinical pharmacology, oncology	• Definition of vital signs (pulse, breath, temperature – independently); • Measurement of blood pressure (independently); • Venipuncture (on simulator); • Inserting catheter in a vein (on simulator); • Injection of curing substances in a vein and usage of equipment for infusion (on simulator or under supervision); • Under skin and intramuscular injection(on simulator on under supervision); • Giving oxygen (independently); • Transportation of patients and taking	Learning with usage of simulators, bedside teaching, clinical rotations.	OSCE, MiniCEX, portfolio.

		care of them (independently); • Stitching up the wound(on simulator); • Blood transfusion (on simulator); • Catheterization of a urinary bladder (on simulator); • Doing urine test (independently); • Doing electrocardiography (independently); • Interpretation of electrocardiography (independently); • Functional test of respiratory system (independently).		

6. Effective communication in the medical context

Years of Teaching	Studying courses/ integrated modules	Learning outcomes	Forms of teaching	Assessment of learning outcomes
1	Medical ethics, behavioral science, introduction in clinical medicine, clinical skills.	Communication with patients	Lectures, practical works, videos for learning, role-plays.	Oral or test exam, OSCE (ability to communicate with standardized patient).
2	Introduction in clinical medicine, medical ethics, clinical skills, medical psychology.	Communication with patients; Communication with relatives of patients; Communication with help of an assistant.	Lectures, practical works, videos for learning, role-plays.	Oral or test exam, OSCE (ability to communicate with standardized patient).
3	Internal medicine, surgery, urology, otolaryngology, pediatrics, dermatology, neurology, obstetrics and gynecology, clinical skills.	Communication with patients; Communication with relatives of patients; Communication with help of an assistant; Effective communication with any person regardless of his/her social, cultural, religious and ethnic background.	Lectures, practical works, videos for learning, role-plays.	Test exam, OSCE (ability to communicate with standardized patient).
4	Internal medicine, surgery, urology, otolaryngology, pediatrics, dermatology, neurology, obstetrics and gynecology, clinical skills.	Communication with patients; Communication while informing about bad news; Communication with relatives of a patient; Communication in case of an argument; Communication with help of an assistant; Effective communication with any person regardless of his/her social, cultural, religious and ethnic background.	Lectures, practical works, learning with usage of simulators, bedside teaching.	Test exam, OSCE (ability to communicate with standardized patient), portfolio.
5	Internal medicine, surgery, clinical skills, traumatology, oncology, neurosurgery, contagious diseases, ophthalmology, medical justice, urgent	Communication with patients; Communication with colleagues; Communication while informing about bad news; Communication with relatives of a patient;	Lectures, practical works, learning with patients (outpatients and inpatients), learning with usage of simulators, bedside	OSCE, MiniCEX, portfolio.

	care medicine, psychiatry.	Communication for getting informative consent; Communication in a written form (including medical records); Communication with help of an assistant; Communication with judicial bodies and mass media; Effective communication with any person regardless of his/her social, cultural, religious and ethnic background.	teaching, clinical rotations.	
6	Internal medicine, family medicine, surgery, pediatrics, geriatrics, clinical pharmacology, obstetrics and gynecology, oncology, clinical skills	Communication with patients; Communication with colleagues; Communication while informing about bad news; Communication with relatives of a patient; Communication with disabled people; Communication for getting informative consent; Communication in a written form (including medical records); Communication in case of an argument; Communication with help of an assistant; Communication with judicial bodies and mass media; Effective communication with any person regardless of his/her social, cultural, religious and ethnic background.	Bedside teaching, clinical rotations, learning with usage of simulators.	OSCE, MiniCEX, portfolio.

7. Use of ethical and judicial affairs in medical practice

Years of Teaching	Studying courses/ integrated modules	Learning outcomes	Forms of teaching	Assessment of learning outcomes
1	Introduction in clinical medicine, clinical skills, medical ethics, behavioral science.	Keeping confidentiality; Getting informed consent;	Lecture, tutorials, seminars, PBL, role-plays, communication with patients.	Oral or test exam.
2	Introduction in clinical medicine, clinical skills, medical ethics, medical psychology.			
3	Propaedeutic (introductory course)/ physical diagnosis, surgery, clinical skills.	Keeping confidentiality; Use of ethical principles and ability to analyze during treatment process; Getting informed consent;	Lectures, clinical case-based learning (CBL), case-based clinical reasoning (CBCR), communication with patients.	Oral or test exam.
4	Internal medicine, surgery, urology, otolaryngology, pediatrics, dermatology,	Keeping confidentiality; Use of ethical principles and ability to analyze during treatment process;	Lectures, clinical case-based learning (CBL), case-based clinical reasoning (CBCR),	Oral or test exam.

	neurology, obstetrics and gynecology, clinical skills.	Getting informed consent and make further report; Ask for autopsy (in cases considered by Georgian legislation)	communication with patients.	
5	Internal medicine, surgery, traumatology, oncology, neurosurgery, infectious diseases, ophthalmology, justice in medicine and medical judiciary, urgent medicine, psychiatry.	Keeping confidentiality; Use of ethical principles and ability to analyse during treatment process; Getting informed consent and make further report; Ask for autopsy (in cases considered by Georgian legislation)	Lectures, clinical case-based learning (CBL), seminars, bedside teaching, clinical rotations.	Oral or test exam.
6	Internal medicine, family medicine, rehabilitation and sport medicine, surgery, pediatrics, geriatrics, obstetrics and gynecology, oncology, scientific skills/	Keeping confidentiality; Use of ethical principles and ability to analyse during treatment process; Getting informed consent and make further report; Ask for autopsy (in cases considered by Georgian legislation); Use of ethical principles recognized internationally and by Georgian legislation;	Lectures, clinical case-based learning (CBL), seminars, bedside teaching, clinical rotations.	Oral or test exam.

8. Assessment of social and psychological aspects connected with a disease of a patient

Years of Teaching	Studying courses/ integrated modules	Learning outcomes	Forms of teaching	Assessment of learning outcomes
1	Introduction in clinical medicine, clinical skills, medical ethics, behavioral science.	Finding out the stress connected with a disease	Lecture, PBL, tutorials, seminars, role-plays.	Oral or test exam
2	Introduction in clinical medicine, clinical skills, medical ethics, medical psychology.	Assessment of disease revelation and psychological factors influencing the patient; Finding out the stress connected with a disease	Lecture, PBL, tutorials, seminars, role-plays.	Oral or test exam
3	Propaedeutic (introductory course)/ physical diagnosis, clinical skills.	Assessment of disease revelation and psychological factors influencing the patient; Assessment of disease revelation and social factors influencing the patient;	Lectures, clinical case-based learning (CBL), case-based clinical reasoning (CBCR), communication with patients.	Oral or test exam
4	Public health care, clinical skills.			
5	Internal medicine, surgery, traumatology, oncology, neurosurgery, infectious diseases, ophthalmology, urgent medicine, psychiatry, public health care, scientific skills.	Assessment of disease revelation and psychological factors influencing the patient; Assessment of disease revelation and social factors influencing the patient; Finding out the stress connected with a disease	Lectures, seminar, clinical case-based learning (CBL), bedside teaching, clinical rotations	Oral or test exam
6	Internal medicine, family	Assessment of disease revelation	Lectures, seminar, clinical	Oral or test exam

	medicine, rehabilitation and sport medicine, surgery, pediatrics, geriatrics, obstetrics and gynecology, oncology, scientific skills.	and psychological factors influencing the patient; Assessment of disease revelation and social factors influencing the patient; Finding out the stress connected with a disease; Finding out drug and alcohol addiction.	case-based learning (CBL), bedside teaching, clinical rotations	

9. Use of evidence-based principles, skills and knowledge

Years of Teaching	Studying courses/ integrated modules	Learning outcomes	Forms of teaching	Assessment of learnin outcomes
1 2	Scientific skills	Conducting and defining appropriate literary research	Lectures, seminars, PBL	Test exam
3	Public health care (biostatistics), scientific skills	Use of evidence in practice Defining appropriate literary research	Lectures, seminar, clinical case-based learning (CBL).	Test exam
4	Internal medicine, surgery, public health care, scientific skills	Use of evidence in practice Conducting and defining appropriate literary research	Lectures, seminar, clinical case-based learning (CBL).	Test exam, portfolio.
5	Internal medicine, surgery, traumatology, oncology, neurosurgery, infectious diseases, ophthalmology, urgent medicine, psychiatry, public health care, scientific skills.	Use of evidence in practice Conducting and defining appropriate literary research Critical assessment of published literature, decision making.	Lectures, seminar, clinical case-based learning (CBL), clinical rotations.	Test exam, portfolio.
6	Internal medicine, family medicine, rehabilitation and sport medicine, surgery, pediatrics, geriatrics, obstetrics and gynecology, oncology, scientific skills.	Use of evidence in practice Conducting and defining appropriate literary research Critical assessment of published literature, decision making and its usage in practice.	Lectures, seminar, clinical case-based learning (CBL), clinical rotations.	Test exam, portfolio.

10. Effective use of information and information technologies in medical context

Years of Teaching	Studying courses/ integrated modules	Learning outcomes	Forms of teaching	Assessment of learning outcomes

1 2	Medical information technology; Scientific skills.	Finding specific information resources; Saving information and using it later; Effective use of computer and other information technologies for saving and finding information	Lectures, seminars.	Test exam, presentations, portfolio.
3	Public health care, scientific skills.	Finding specific information resources; Saving information and using it later; Effective use of computer and other information technologies for saving and finding information; Finding specific information resources; Following regulations of confidential data while performing work connected with data processing.	Lectures, seminars.	Test exam, portfolio.
4	Public health care, scientific skills.	Making medical record correctly and saving it completely; Finding specific information resources; Saving information and using it later; Ability to save personal records (portfolio)	Lectures, seminars.	Test exam, portfolio.
5	Public health care, scientific skills.	Making medical record correctly and saving it completely; Use of modern information technologies in practical works; Finding specific information resources; Saving information and using it later; Ability to save personal records (portfolio); Availability of information resources and use of found information in the process of taking care of a patient, improving his/her health condition, providing information, giving advice and also in the sphere of education and research.	Lectures, seminars, production of medical documents (including information technology usage), clinical rotations.	Test exam, portfolio.
6	Scientific skills	Making medical record correctly and saving it completely; Use of modern information technologies in practical works; Finding specific information resources;	Practice in medical institutions (with outpatients and inpatients, production of medical documents (including information	Test exam, portfolio.

		Saving information and using it later; Ability to save personal records (portfolio); Availability of information resources and use of found information in the process of taking care of a patient, improving his/her health condition, providing information, giving advice and also in the sphere of education and research; Use of principles, methods and knowledge of medical information technology during medical practice process.	technology usage), bedside teaching, clinical rotations at university/educational clinics	

11. Use of knowledge, scientific principles and methods of biomedicine in medical practice and research

Years of Teaching	Studying courses/ integrated modules	Learning outcomes	Forms of teaching	Assessment of learning outcomes
1	Biomedical sciences, scientific skills, medical ethics.	Knowledge of methodology for conducting scientific research; Knowledge of ethical principles to conduct scientific research.	Lectures, seminars, clinical case-based learning (CBL).	Test exam, paper.
2	Biomedical sciences, public health care (biostatistics), scientific skills.	Knowledge of methodology for conducting scientific research; Knowledge of ethical principles to conduct scientific research; Ability to create a paper/review based on critical analysis of biomedical scientific literature.	Lectures, seminars, clinical case-based learning (CBL).	Test exam, scientific paper.
3	Public health care (biostatistics), scientific skills.	Knowledge of methodology for conducting scientific research; Knowledge of ethical principles to conduct scientific research; Ability to create a paper/review based on critical analysis of biomedical scientific literature; Knowledge of methodology for conducting scientific research;	Lectures, seminars, clinical case-based learning (CBL).	Test exam, scientific work/paper.
4	Public health care, scientific skills.	Knowledge of methodology for conducting scientific research; Knowledge of ethical principles to conduct scientific research; Ability to create a paper/review based on critical analysis of biomedical scientific literature;	Lectures, seminars, participation in scientific studies, clinical rotations.	Test exam, scientific presentations, scientific works, portfolio.

		Knowledge of methodology for conducting scientific research; Ability to make research design, detailed planning, treatment of achieved results, conclusion.		
5	Public health care, scientific skills.	Knowledge of methodology for conducting scientific research; Knowledge of ethical principles to conduct scientific research; Ability to create a paper/review based on critical analysis of biomedical scientific literature; Knowledge of methodology for conducting scientific research; Ability to make research design, detailed planning, treatment of achieved results, conclusion; Ability to use achievements of biomedical scientists in practice.	Participation in scientific studies and conferences	Test exam, scientific presentations, scientific works, portfolio.
6	Public health care, scientific skills.	Knowledge of methodology for conducting scientific research; Knowledge of ethical principles to conduct scientific research; Ability to create a paper/review based on critical analysis of biomedical scientific literature; Ability to make research design, detailed planning, treatment of achieved results, conclusion; Ability to use achievements of biomedical scientists in practice.	Participation in scientific studies and conferences	Test exam, scientific presentations, scientific works, portfolio.

12. Setting out healthcare measures, involvement in public healthcare issues, performing effective actions in healthcare system

Years of Teaching	Studying courses/ integrated modules	Learning outcomes	Forms of teaching	Assessment of learning outcomes
1	Introduction in clinical medicine, medical information technologies.	Use of medical information technologies to enhance medical service quality and patient's security optimization.	Lecture, seminar, PBL	Oral/test exam, portfolio
2	Introduction in clinical medicine, scientific skills.	Use of medical information technologies to enhance medical service quality and patient's security optimization; Contribution to patient's security.	Lecture, seminar, PBL	Oral/test exam, portfolio
3	Public healthcare, scientific skills.	Use of medical information technologies to enhance medical service quality and	Lecture, seminar, clinical case-based learning (CBL).	Oral/test exam

		patient's security optimization; Contribution to patient's security; To perform the treatment which will minimized harmful risks of a patient.		
4	Public healthcare, scientific skills.	Use of medical information technologies to enhance medical service quality and patient's security optimization; Contribution to patient's security; To perform the treatment which will minimized harmful risks of a patient; Acknowledgment of problems connected with own health and its assessment meanwhile considering professional duties.	Lecture, seminar, clinical case-based learning (CBL).	Oral/test exam, portfolio
5	Public healthcare, scientific skills.	Use of medical information technologies to enhance medical service quality and patient's security optimization; Contribution to patient's security; To perform the treatment which will minimized harmful risks of a patient; To perform prevention measures of disease transmission; Acknowledgment of problems connected with own health and its assessment meanwhile considering professional duties; Participation in healthcare activities on individual and population levels.	Lecture, seminar, clinical case-base, learning (CBL), clinical rotations.	Test exam, scientific presentations, portfolio.
6	Public healthcare	Use of medical information technologies to enhance medical service quality and patient's security optimization; Contribution to patient's security; To perform the treatment which will minimized harmful risks of a patient; To perform prevention measures of disease transmission; Acknowledgment of problems connected with own health and	Lecture, seminar, clinical case-base, learning (CBL), clinical rotations.	Test exam, scientific presentations, portfolio.

		its assessment meanwhile considering professional duties; Participation in healthcare activities on individual and population levels; Contribution to changes in healthcare system for enhancing service quality and results; Introduction of disease prevention, health care and disease supervision with individual patients.		

13. Professionalism

Years of Teaching	Studying courses/ integrated modules	Learning outcomes	Forms of teaching	Assessment of learnin outcomes
1	Medical ethics, behavioral science, introduction in clinical medicine, anatomy, physiology, histology, cellular and molecular biology, biophysics, genetics.	General characteristics of professionalism: • Treatment, honesty, following ethical principle; • Creativeness; • Initiative, willingness to succeed; Professionalism in working process: • Set limits to own abilities and ask for help; • Leadership skills; The doctor as expert: • Ability to analyze and synthesize.	Theoretical and practical learning – problem based learning (PBL), tutorials, videos for learning, seminars, contact with patients	Oral or test exam, scientific presentations
2	Introduction in clinical, psychology, anatomy, physiology, biochemistry, immunology, microbiology, histology, general pharmacology, scientific skills.	General characteristics of professionalism: • Impartiality, following ethical principle; • Creativeness; • Empathy toward patients; • Initiative, willingness to succeed; • Interpersonal skills Professionalism in working process: • Set limits to own abilities and ask for help; • Leadership skills; • Ability of problem-solving. The doctor as expert: • Ability to analyze and synthesize.	Theoretical and practical learning – problem based learning (PBL), tutorials, videos for learning, seminars, contact with patients	Oral or test exam, scientific presentations

3	Propedeutics/ physical diagnosis, surgery, pathology, pharmacology, laboratory medicine, radiology, public healthcare, scientific skills.	General characteristics of professionalism: • Impartiality, following ethical principle; • Creativeness; • Empathy toward patients; • Initiative, willingness to succeed; • Interpersonal skills Professionalism in working process: • Set limits to own abilities and ask for help; • Leadership skills; • Ability of problem-solving; • Finding ways out of difficult situations and adaptation with new situations. The doctor as expert: • Ability to analyze and synthesize.	Theoretical and practical learning – clinical case-based learning (CBL), case-based clinical reasoning (CBCR), contact with patients, clinical rotations.	Oral exam, one clue or multiple choice tests, scientific presentations portfolio.
4	Internal medicine, surgery, urology, otolaryngology, pediatrics, dermatology, neurology, public health care, obstetrics and gynecology, clinical skills, scientific skills.	General characteristics of professionalism: • Impartiality, following ethical principle; • Creativeness; • Empathy toward patients; • Critical and self-critical attitude; • Initiative, willingness to succeed; • Interpersonal skills Professionalism in working process: • Set limits to own abilities and ask for help; • Leadership skills; • Ability of problem-solving; • Finding ways out of difficult situations and adaptation with new situations; • Organizational skills (including time management) The doctor as expert: • Ability to analyze and synthesize.	Clinical case-based learning (CBL), case-based clinical reasoning (CBCR), contact with patients, clinical rotations.	Tests, scientific presentations, portfoli
5	Internal medicine, surgery, traumatology, oncology, neurosurgery, contagious diseases, ophthalmology,	General characteristics of professionalism: • Impartiality, following	Theoretical and practical learning – seminars, clinical rotations at	Tests, scientific presentations, portfoli

	medical law and judicial medicine, urgent care medicine, psychiatry, public health care, scientific skills.	ethical principle; • Creativeness; • Empathy toward patients; • Critical and self-critical attitude; • Initiative, willingness to succeed; • Interpersonal skills Professionalism in working process: • Set limits to own abilities and ask for help; • Leadership skills; • Ability of problem-solving; • Finding ways out of difficult situations and adaptation with new situations; • Organizational skills (including time management); • Ability to communicate with experts of other spheres. The doctor as expert: • Ability to analyze and synthesize.	university/educational clinics.	
6	Internal medicine, family medicine, rehabilitation and sport medicine, surgery, pediatrics, geriatrics, obstetrics and gynecology, oncology, scientific skills.	General characteristics of professionalism: • Impartiality, following ethical principle; • Creativeness; • Empathy toward patients; • Critical and self-critical attitude; • Initiative, willingness to succeed; • Interpersonal skills Professionalism in working process: • Set limits to own abilities and ask for help; • Leadership skills; • Ability of problem-solving; • Finding ways out of difficult situations and adaptation with new situations; • Organizational skills (including time management); • Ability to communicate with experts of other spheres; • Skills for working in multidisciplinary teams. The doctor as expert: Ability to analyze and synthesize.	Theoretical and practical learning – seminars, clinical rotations at university/educational clinics.	Tests, scientific presentations, portfoli

List of Equipment for Clinical Skills Centre (Example)

Name/Photo

- **Adult care manikin**

Characteristic features:

1. Manikin is made from durable, strong, waterproof plastic (injection sites are soft rubber (total of 6 on the simulator), while the organs and genitals are elastic.
2. It is possible to bend upper and lower limbs and make movements similar to the movements of a human being.
3. Manikin has simulated lungs, heart, stomach, urinary bladder and intestines; the organs are removable
4. Urinary bladder and intestines are absolutely waterproof and are connected to genitals (genital is adapted to both men and women) for catheterization .
5. Manikin's carrying roller box sizes are 34 "x 22" x 14 "inch ,weight - 50 pounds (23kg), height - 174 cm.

Facilities:

- Cleaning and personal hygiene;
- Mobilization
- putting on a bandage and wound debridement;
- Eye, ear, nose, stomach, intestine and urinary bladder irrigation;
- intramuscular hypodermic injections;
- nasogastric lavage
- Provision of oxygen and artificial respiration;
- tracheostomy care;
- Catheterization of the bladder (woman and man);
- Stoma care;
- Enema

Consultative competence:

Practical procedures (5)

- **Venipuncture simulator pad**

Characteristic features:

1. Venous network of the venipuncture pad represents a sponge-covered board depicting a venous system and a cubital fossa of the right arm.
2. The filling of the venous networkhe of the simulator pad is performed separatly as it is not connected to a special blood pack.
3. Coating epidermis of the pad is durable and is easily washed with water and soap.

Facilities:

- Finding vein with palpation
- Venipuncture
- Catheterisation
- Managing blood circulation

- drawing blood

Consultative competence:

Practical procedures (5)

- **Intravenous injection training arm**

Characteristic features:

1. Intravenous injection training arm is made from durable silicone
2. The middle veins of salm, shear, elbow and dorsal venous network of the wrist are represented on the training arm.

Facilities:

- Intravenous injection
- Peripheral Venipuncture

Consultative competence:

Practical procedures (5)

4. Intravenous injection pad

Characteristic features:

1. Venous pipe creates 2 lines: one of the normal size and anoert - thin.
2. The artificial vein wall has resistance similar to the real.
3. Artificial veins are easily replenished with liquid from a soft plate bottle that works with the help of a piston.
4. It is possible to remove the puncture board and put it on the arm of the human or a manikin
5. Injection pad is a rubber frame in which artificial veins are covered with special sponge.

Facilities:

- **Venipuncture**
- **Intravenous injection**

Consultative competence:

Practical procedures (5)

5. Multi-functional I.V. Training Arm

Characteristic features

1. Multi-functional arm is a special device that is attached to a special stand.

The arm is covered with high quality silicon / rubber and has simulative veins which are

connected to the package full of blood substitute;

2. The training arm has venous pressure regulating balloon;

3. The training arm has special space for tuberculin testing;

4. While injecting into the vein the feeling is similar to real;

5. The training arm is covered with a complete venous system;

6. On the training arm we can find and distinguish basilic , wrist and radial veins;

7. It is possible to make intramuscular injections in the deltoid muscle in this area,

on the front shoulder and shoulder.

8. It is possible to draw off blood.

Facilities

- Making intravenous, intramuscular and subcutaneous injections.

Consultative competence:

Practical procedures (5)

6. Intramuscular injection simulator (hip)

Characteristic features

1. The simulator represents a lower body part from the waist to the knee.

2. On the one side of the simulator we can see the external muscular and vascular anatomic picture while on the other side It is possible to make injections.

Facilities:

- Making an Intramuscular injection on the upper square part of the hip/bottom;
- Making an intramuscular injection in the lower ventrogluteral area of the hip/bottom;
- Making an intramuscular injection in the lateral area of a thigh;
- Making a subcutaneous injection in the upper inguinal region of the abdominal wall;
- Determining localization of femoral vein and artery;
- Examination/palpation of the hip region;

Consultative competence:

Practical procedures (5)

7. Subcutaneous, intracutaneous and intramuscular injection simulator Pad

Characteristic features

1. The injection pad is not made of latex.

2. The model creates the stimulatory layers of the following tissues: epidermis, derm, fat and muscular.

3. It is possible to remove the stimulatory layer of epidermis and drain the accumulated liquid, than fix it back and inject another dose of the liquid with a syringe.

4. It is possible to drain the liquid which was injected intramuscularly

5. Epidermis is durable and easily changeable.

6. It is possible to put/fix the simulator on a student's or trainer's arm or foot.

7. The simulator represents a soft sponge attached to the plastic frame covered with a special kind of epidermis.

Facilities:

- Subcutaneous, skin and intramuscular

Injections

Consultative competence:

Practical procedures (5)

- **Advanced Surgical suture arm**

Characteristic features

1. The model is made of vinyl skin stretched on the hard foam.

2. The skin is maximally close to natural with its wrinkles, pores and fingerprints.

3. The model has 3 wounds.

Facilities:

- Suture of wounds;
- After suturing old wounds on the arm, in case of skin damage, making of new wounds is possible.

Consultative competence:

Practical procedures (5)

- **Male urinary catheterization simulator**

Characteristic features

1. Does not contain latex

2. Has a diuretic resistance spitcarry for the reaction close to natural

3. Has a valve without a dropper

4. The simulator represents a flaccid penis ,It is possible to pull down the frenulum of prepuce of the penis.

5. The simulator comes with a tripod to which a 1-liter package with liquid is attached.

6. It is possible to use local anesthetic gel

7. It is possible to use aseptic technique in catheterization

Facilities:

- Study of anatomy of men's genitals.

- Aseptic Catheterization
- 14-16 F Fayette catheter insertion
- Managing the liquid
- Removing of a catheter
- Inserting of a catheter

Consultative competence:

Practical procedures (5)

10. Female urinary bladder catheterization simulator

Characteristic features

1. Does not contain latex

2. Has a urinary resistant respiratory spint carry for reactions close to natural

3. Has a valve without a dropper

4. Big and small vulvar lips are represented on the mold partly in the way, which shows the formation of vaginal hole and urine.

Facilities:

- Study of anatomy of women's genitals.
- Aseptic Catheterization
- 12-16 F Fayette catheter inserting
- Managing the liquid
- Removing of a catheter
- Inserting of a catheter

Consultative competence:

Practical procedures (5)

11. Pressure measuring simulator

Characteristic features

1. Pre-installed examples/samples based on WHO classification for Individual and group studies

2. Cuff pressure loosing control is possible

3. Simulator can also be used to evaluate student's objective skills

4.There is also auscultative gap and the Fifth Korotkoff sound as well as different samples of blood pressure.

Facilities:

- Putting on the cuff
- Manual tonometry,
- Korotkoff sound
- Auscultation,
- Radial pulse palpation,
- Reading blood pressure
- Loosing of the cuff
- Visible digital indicators .The blood pressure indicators are diagnosed with an objective assessment
- Simulator can be connected to external amplifier in order to hear the Korotkoff sounds
- Installed samples of aspiration, norm,, prehypertension, hypertension (1-3 stage), isolated systolic hypertension, auscultative pause, Korotkoffs 5^{th} tone .

Consultative competence:

Practical procedures (5)

12.Injured elderly patient manikin

Characteristic features

1. The carotid (sleeping) pulse can be examined to the manikin

.

2. The breast bone, the umbilical artery underneath the breast bone (substrate) are anatomically marked on the body of the manikin.

.

3. Cardiovascular resuscitation and artificial respiration procedures can be made using the manikin

.

4. Manikin has an arm for intravenous injections

.

5. The simulator comes with a special wound packet

.

6. Manikin is 50 "x 21" x 11 "- inch (1,27x53x27 cm) of dimension and 60 pounds (27 kg) weigh.

Facilities

- We can perform the following procedures using the manikin ; pulmonary resuscitation techniques, indirect heart massage, lung artificial ventilation
- We can perform primary treatment of wounds, intravenous

Injection preparation with the manikin

- It is possible to transport the manikin with different kinds of wounds

Consultative competence:

Assistance in emergency situations (first aid and resuscitation) (3)

13. Manikin for maintaining vital functions

• Manikin has a head with a breathing system suitable for mouthpiece in the mouth and mouth to mouth artificial respiration procedures.

• It is possible to bend the manikin{s head to divert respiratory tract.

• Ventilation of the lungs can also be performed with the help of a bag valve mask.

• In case of exceeding the actual limit of pressure and the minimum depth of pressure at minimum margin (5 cm in adults and 4,5 cm children), it produced a sound, made by 2 special variable springs.

• Easily replaceable respiratory tracts are responsible for facilitating hygienic use and easy maintenance.

Facilities

The manikin represents a torso with all necessary anatomical details which make it ideal to find all necessary areas for cardiopulmonary resuscitation..

III. Members of the Sectoral Benchmarks Development Group

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6	Eka Ekaladze	Tbilisi State Medical University	Director of U.S.M.D. Program, Associated Professor of the Department of Biochemistry
7	Ia Pantsulaia	Tbilisi State Medical University	Director of V. Bakhutashvili Institute of Medical Biotechnology, Associate Professor of the Department of Immunology
8	Salome Voronova	Tbilisi State Medical University	Chief Specialist of the Department of Medical Education, Research and Strategic Development