

### Analytical program .

1. Identification data	
• Name of the institution and the agency ( on official agency stationery)	Universidad Autónoma de Nuevo León, Facultad de Medicina.
• Name of the learning unit	Emergency.
• Classroom-theory and / or total practical hours	340 hours
• Total of the classroom extra hours	20 Hours.
• Modality ( schooled,unschooled, mixed)	Schooled
• Type of academic period ( semester or four-month period)	12° Semester
• Type of learning unit ( mandatory/optional )	mandatory.
• Curricular area (ACFGU, ACFB, ACFP-F, ACFP-I)	ACFP-I
• Credits of the UANL (complete numbers)	12
• Production date (dd/mm/yy)	June 2017
• Last update (dd/mm/yy)	01/02/2023
• Responsible for design:	Dr. med. Marco Antonio Hernández Guedea. Dr. Asdrubal Guevara Charles.
2. Presentation:	
<p>The Emergency learning unit includes the integration of medical and surgical sciences, and is structured in three stages with the purpose of achieving and consolidating fundamental skills on the recognition and approach of medical situations that endanger the patient's life, taking timely decisions with ethical and professional sense.</p> <p>Stage 1 is called Quality and Patient Safety, in this stage training is provided in the categorization according to the severity of patients through Triage and proper management of documentation, to guarantee patient safety, as well as rapid treatment. and cash. Stage 2 refers to the identification of surgical emergencies, through adequate clinical and office correlation for a timely diagnosis and pertinent treatment. Stage 3 refers to medical emergencies, where training is also provided for the correct categorization of those that pose an immediate danger to life, in order to apply the most current medical management protocols.</p> <p>Teaching-learning activities occur in real settings, thus promoting meaningful learning and competency-based education.</p>	
3. Purpose	

In the Emergency learning unit, the student will acquire the skills to establish the presumptive diagnosis, offer the initial therapeutic measures as well as refer the patient to the corresponding area in a timely and appropriate manner, with efficient professional performance, with critical and reflective judgment in the daily practice, for the benefit of individuals and society.

This learning unit is curricularly located in the twelfth semester, belongs to the Curricular Area of Integrative Professional Training and includes a core area in the training of the doctor in the Surgeon and Midwife Curriculum; It is part of an educational process in which basic and clinical knowledge is integrated in a multidisciplinary manner, developing specific clinical competencies, which implies the promotion, evolution and consolidation of intellectual skills, with an integrative perspective: clinical reasoning (analysis, synthesis and evaluation), procedural skills and attitudinal skills, which prepares the student to successfully carry out the required medical-surgical activities.

Its curricular relationship requires knowledge of the structure and function of the human body through the study of Anatomy, Physiology, Histology, Embryology, Microbiology, Biochemistry and Molecular Biology, Pathology, Clinical Pathology, Imaging, Quality and Safety in Care, with the purpose to correlate this knowledge for the evaluation and solution of clinical-surgical problems, through the correct preparation of a clinical history and an intentional physical examination, combined with the interpretation of laboratory studies and Image. It also requires knowledge of Pharmacology and Toxicology that allows the correct selection of treatment, taking into account their interactions; as well as with Bioethics for making relevant decisions in its sphere of influence.

Regarding the general competencies of the University, this learning unit promotes the use of formal language, the correct use of language; the use of logical and critical thinking that allows you to make decisions within your sphere of influence; management of computer tools; and autonomous learning is privileged, which will allow you to consolidate your disciplinary and personal training. Regarding the specific competencies of the profession, it contributes to scientific knowledge and its applicability through the clinic. Likewise, effective communication with patients, their families and other professionals is promoted, in addition to knowing how to work in a multidisciplinary team and always practicing medical ethics, respect, confidentiality and social commitment.

The biopsychosocial perspective is reinforced by treating the patient as a human being immersed in a certain family and social environment or context, which is a relevant factor for their diagnosis and treatment.

#### 4. State the competencies of the graduation profile

a. General Competencies to which this learning unit contributes

**Instrumental skills:**

1. Apply autonomous learning strategies at different levels and fields of knowledge that allow you to make timely and relevant decisions in the personal, academic and professional spheres.
2. Use logical, formal, mathematical, iconic, verbal and non-verbal languages according to their stage of life, to understand, interpret and express ideas, feelings, theories and currents of thought with an ecumenical approach.
3. Manage information and communication technologies as a tool for accessing information and its transformation into knowledge, as well as for learning and collaborative work with cutting-edge techniques that allow constructive participation in society.
4. Master your native language orally and in writing with correctness, relevance, timeliness and ethics, adapting your message to the situation or context, for the transmission of ideas and scientific findings.
5. Use logical, critical, creative and purposeful thinking to analyze natural and social phenomena that allow you to make relevant decisions in your sphere of influence with social responsibility.
6. Use a second language, preferably English, with clarity and correctness to communicate in everyday, academic, professional and scientific contexts.
7. Prepare inter, multi and transdisciplinary academic and professional proposals according to the best global practices to promote and consolidate collaborative work.
8. Use traditional and cutting-edge research methods and techniques for the development of their academic work, the exercise of their profession and the generation of knowledge.

**Personal and Social Interaction Competencies:**

9. Maintain an attitude of commitment and respect towards the diversity of social and cultural practices that reaffirm the principle of integration in the local, national

and international context with the aim of promoting environments of peaceful coexistence.

10. Intervene in the face of the challenges of contemporary society locally and globally with a critical attitude and human, academic and professional commitment to contribute to consolidating general well-being and sustainable development.

11. Practice the values promoted by the UANL: truth, equity, honesty, freedom, solidarity, respect for life and others, respect for nature, integrity, professional ethics, justice and responsibility, in your personal and professional sphere to contribute to build a sustainable society.

**integrative competencies:**

12. Build innovative proposals based on the holistic understanding of reality to contribute to overcoming the challenges of the interdependent global environment.

13. Assume leadership committed to social and professional needs to promote relevant social change.

14. Resolve personal and social conflicts according to specific techniques in the academic field and their profession for appropriate decision-making.

15. Achieve the adaptability required by the uncertain social and professional environments of our time to create better living conditions.

a. Specific competencies of the graduation profile to which the learning unit contributes

**Specific competencies of the Bachelor of Surgeon and obstetrician**

**Scientific Basis of Medicine**

1.- Use the scientific foundations of medicine considering the economic, psychological, social, cultural and environmental factors that contribute to the development and evolution of the disease for medical decision-making and actions.

**Professional Clinical Practice**

- 2.- Solve clinical problems through deductive reasoning, the interpretation of findings and the definition of their nature in order to make decisions and determine principles of action of medical practice to follow responsibly, impacting individual and collective health.
- 3.- Evaluate the development and evolution of the disease through the analysis of biomedical information and related physical, social and cultural factors, promoting health education and promoting preventive medicine.
- 4.- Appropriately manage patients with the most frequent diseases, from a biopsychosocial perspective, through the application of knowledge, technical procedures and basic diagnoses, based on clinical guides and care protocols, to solve the main health problems of the patient. first level of care for the individual and the community.
- 5.- Manage common medical emergencies, applying treatment, procedures and minor interventions and appropriately and timely refer patients who require critical care for the preservation of life.
- 6.- Manage human resources, diagnostic interventions, therapeutic modalities and health care options according to national standards, promoting a culture of quality care and guaranteeing safety for patients.

**Critical Thinking and Research**

- 7.- Apply the scientific method in solving medical problems with an innovative, analytical and self-critical attitude in the prevention, diagnosis and treatment of diseases.

**Professional Values and Ethics**

- 8.- Integrate professional values and ethics into medical practice, without distinction of gender, race, political and sexual preferences, religious beliefs, activities performed, different abilities or socioeconomic status, promoting social inclusion and contributing to the well-being of the population. population, quality of life and human development.
- 9.- Respect the integrity of the patient by preserving their medical information as a fundamental part of professional secrecy, in order to protect their rights.

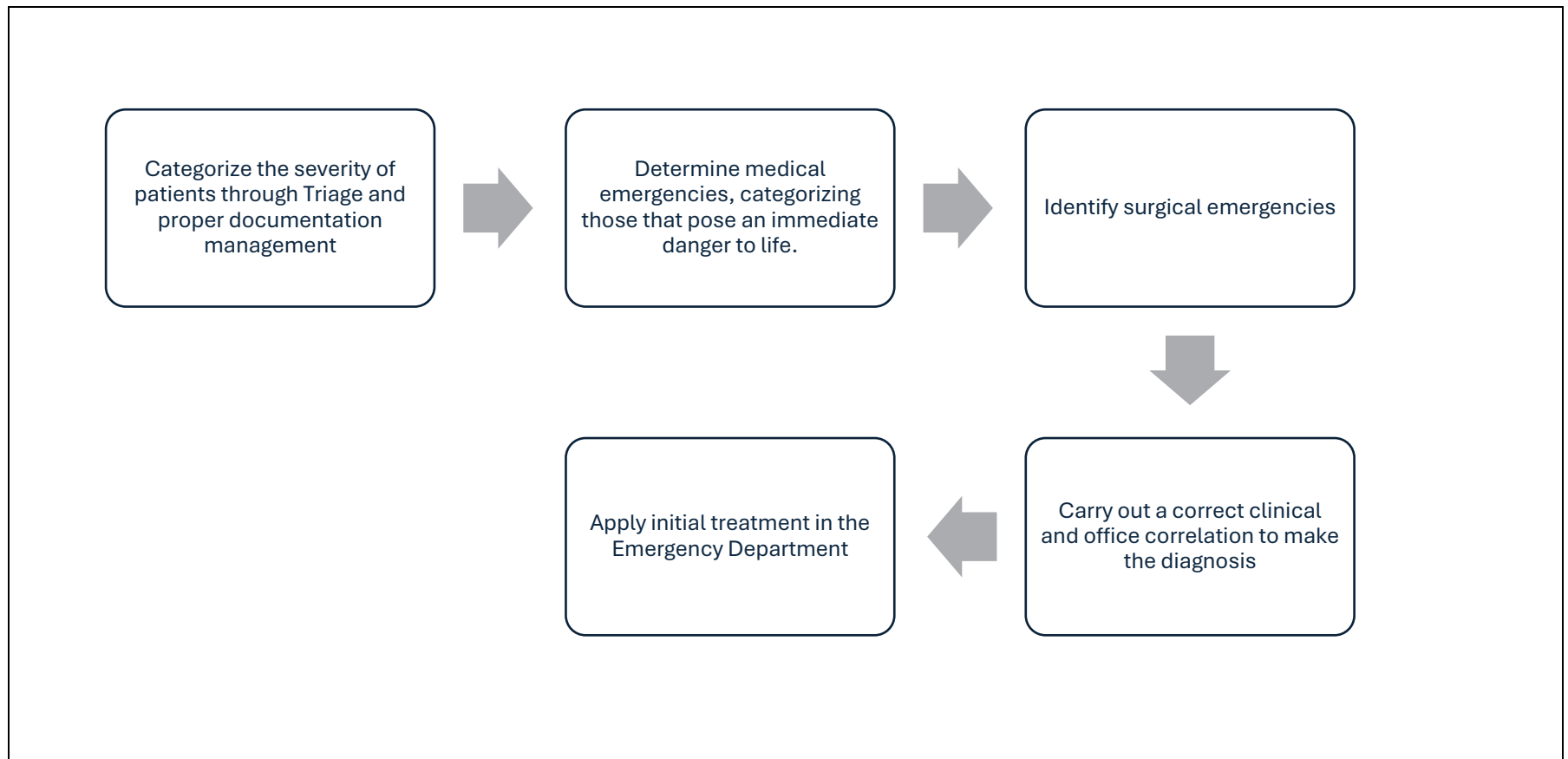
**Organizational Work**

10.- Promote the culture of organizational work in the field of health, recognizing multidisciplinary work, respect for institutional policies and observance of regulations, in order to contribute to the comprehensive treatment of patients.

**Communication**

11.- Apply the principles of effective communication, establishing a relationship of respect and empathy with the patient, their families, the community and other health professionals, in order to use the information appropriately.

5. Graphic representation



## 6. Structuring into chapters, stages, or phases, of the learning uni

### **Stage 1. Quality and Patient Safety.**

#### **Competition element:**

**Categorize the severity of patients through Triage and adequate documentation management, to guarantee patient safety and expedite intra-hospital procedures, with the aim of establishing rapid and effective treatment according to the pathology.**

Skill evidence	Performance criteria	Learning activities	Contents	Resources
Evaluation of performance in the consultation	<p>Emergency Consultation:</p> <p>Complete the request for laboratory and cabinet tests in original and copy and deliver it to the Control Desk.</p> <p>He is responsible for recording the diagnostic and/or therapeutic procedures of the patients under his care.</p> <p>Accompanies patients to radiological studies and collects studies and their corresponding interpretation.</p> <p>Deliver clinical file to Nursing.</p> <p>Take the medical history.</p> <p>Perform the physical examination.</p> <p>Adequately presents the clinical case</p>	<p>Presentation of the contents orally, with visual support.</p> <p>In the oral presentation, the teacher maintains interaction with the students in relation to the knowledge obtained in the review of material individually.</p> <p>The teacher corroborates the integration of the concepts and provides clinical examples.</p> <p>The student attends the HU Emergency Room and does the following:</p> <p>-In the Triage area, together with the nurse, perform the initial evaluation of the patients (Triage) and determine the physical area where the patient will be sent according to the classification severity and diagnosis.</p>	<p><b>Conceptual contents</b></p> <p>Quality and patient safety.</p> <p>TRIAGE / Handling and filling out documents in Emergencies.</p> <p>Initial Assessment of the Multiple Traumatized Patient.</p> <p>TRIAGE / Handling and filling out documents in Emergencies.</p> <p><b>Procedural content</b></p> <p>Management of the clinical record in accordance with the Official Mexican Standard for filling out the Clinical Record: records notes, diagnostic studies and describes therapeutic procedures.</p> <p>Evaluation of patients and clinical cases.</p>	<p>Classrooms of the Faculty of Medicine.</p> <p>Textbooks.</p> <p>Audiovisual material.</p> <p>Official Mexican STANDARD NOM-004-SSA3-2012, from the clinical file</p> <p>Emergency Department, University Hospital, "Dr. José Eleuterio González"</p>



	<p>,integrating immediate and future treatment plans.</p> <p>Record immediate and future diagnosis and treatment plans.</p>	<ul style="list-style-type: none"> <li>- Registers all patients who come to the Department according to the established electronic format.</li> <li>-Fill out the electronic forms for recording the procedures carried out in the Department.</li> <li>-Fill out the format of the electronic statistical journal of income and expenses.</li> <li>-It is responsible for verifying that the Informed Medical Treatment Consent is properly completed in the File.</li> </ul>	<p>Preparation of the clinical history.</p> <p>Physical examination.</p> <p>Oral and written presentation of clinical cases.</p> <p>Classification of emergencies in Triage.</p> <p>Transfer of patients.</p> <p>Filling out laboratory and cabinet exam request forms</p> <p>.</p> <p><b>Attitudinal content</b></p> <p>About for the rules of conduct.</p> <p>Proper use of clothing and work materials and instruments.</p> <p>Respect for patients, patient families, teachers, team</p>	
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			multidisciplinary and colleagues. Teamwork. Appropriate use of language .	
<b>Stage 2. Surgical Emergencies:</b> Identify surgical emergencies, through adequate clinical and office correlation to be diagnosed in a timely manner and initiate the relevant treatment. .				
Evidence of learning	Performance criteria	Learning activities	Contents	Resources
Performance evaluation in the suture area .	Sutures and Traumatology Area: -Make the initial emergency note. -Request necessary material for procedure. -Suture wounds, after asepsis and antisepsis.	Presentation of the contents orally, with visual support. In the oral presentation, the teacher maintains interaction with the students in relation to the knowledge obtained in the review of material individually. The teacher corroborates the integration of the concepts and provides clinical examples.	Conceptual Content Surgical emergencies Chest Trauma Rattlesnake bites. Pediatric Trauma and Pregnancy. Abdominal trauma. Wounds from a firearm projectile. Burns. Airway Management. Lumbar pain and traumatic knee. Neck and spine trauma.	Classrooms of the Faculty of Medicine. Textbooks. Audiovisual material. Official Mexican STANDARD NOM-004-SSA3-2012, from the clinical file Emergency Department Shock Trauma, Hospital

	<p>-Performs cures, after asepsis and antisepsis.</p> <p>- Place sharps waste in rigid containers.</p> <p>-Returns the material at the end of the procedure and records it in the file.</p>	<p>The student assigned to the sutures and traumatology area performs the following:</p> <p>-Request the patient's Clinical Record to be able to make notes on the findings found, as well as record the requested diagnostic studies, as well as a description of the therapeutic procedures performed.</p> <p>Assists Professors and Residents in special procedures to be performed in the suture room,</p> <p>-Record any type of clinical-surgical procedure in the clinical record.</p> <p>-Fill out the standardized forms</p> <p>-Identifies samples and delivers them to the nurse in charge.</p>	<p>Acute Abdominal Pain.</p> <p>Craniocerebral Trauma.</p> <p>Fractures and Sprains.</p> <p>Management of shock.</p> <p><b>Procedural content</b></p> <p>Management of the clinical record in accordance with the Official Mexican Standard for filling out the Clinical Record: records notes, diagnostic studies and describes therapeutic procedures.</p> <p>Perform healing.</p> <p>Assists special procedures.</p> <p>Management of clinical and surgical material.</p> <p>Sample management.</p> <p>Oral and written presentation of clinical cases.</p>	<p>Universitario, "Dr. José Eleuterio González".</p>
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		<p>Guids the patient about their follow-up in the corresponding service.</p> <p>-Request the necessary material to carry out the procedure that is warranted depending on the case, being responsible for its return.</p> <p>-Performs healing.</p> <p>-Explains the indicated therapy to patients.</p> <p>- Verifies the correct registration of the patient in the computer system and in the admission and discharge diary, regarding personal data, as well as laboratory studies and examinations, presumptive diagnosis and procedures.</p> <p>-According to the patient's clinical situation, the student will deliver the</p>	<p>Filling out laboratory and office exam request forms.</p> <p><b>Attitudinal Content</b></p> <p>Respect for the rules of conduct.</p> <p>Proper use of clothing and work materials and instruments.</p> <p>Respect for patients, patients' families, teachers, multidisciplinary team and colleagues.</p> <p>Teamwork.</p> <p>Appropriate use of language.</p>	
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		complete file with the corresponding classification international diseases (tenth edition, ICD-10) -It is responsible for verifying that the Informed Medical Treatment Consent is properly completed in the File.		
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### Stage 3. Medical Emergencies.

Competition element:

Determine medical emergencies, categorizing those that pose an immediate danger to life, for initial treatment in the emergency service, in order to apply the most current medical management protocols.

Evidence of learning	Performance criteria	Learning activities	Contents	Resources
Performance evaluation in consultation	Emergency Consultation: Take medical history. Perform physical examination. Presentation of the case.	Presentation of the contents orally, with visual support. In the oral presentation, the teacher interacts with the students in relation to the knowledge	<b>Contenido Conceptual</b> Medical Emergencies Management of the Contagious Infected Patient. Cardiopulmonary resuscitation.	Classrooms of the Faculty of Medicine.  Textbooks.  Audiovisual material.

<p>Evaluation of performance in the observation area.</p>	<p>Record immediate and future diagnosis and treatment plans.</p> <p>Complete the application for laboratory and cabinet tests properly.</p> <p>Records the diagnostic and/or therapeutic procedures of the patients under their care.</p> <p>Accompanies patient to radiological study and collects study and interpretation.</p> <p>Deliver clinical file to Nursing.</p> <p>Observation area:</p> <p>Receives SBAR patients</p>	<p>obtained in the review of material individually.</p> <p>The teacher corroborates the integration of the concepts and provides clinical examples.</p> <p>The student attends the HU Emergency Room and does the following:</p> <p>-In the Triage area, together with the nurse, perform the initial evaluation of the patients (Triage) and determine the physical area where the patient will be sent according to the severity classification and their diagnosis.</p> <p>-Register all patients who come to the Department according to the</p>	<p>Gastrointestinal tract bleeding.</p> <p>Respiratory failure and COPD.</p> <p>Cardiopulmonary resuscitation.</p> <p>Anaphylaxis.</p> <p>Acute kidney failure.</p> <p>Heart failure and arrhythmias.</p> <p>Neurological emergencies.</p> <p>Intoxications and poisoning. Chest pain and acute coronary syndrome.</p> <p>Pain management and sedation.</p> <p>Hypertensive emergency and urgency.</p> <p>Pneumonia.</p> <p>Intoxications.</p>	<p>Official Mexican STANDARD NOM-004-SSA3-2012, from the clinical file</p> <p>Shock Trauma Emergency Department, University Hospital, "Dr. José Eleuterio González".</p>
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<p>Performance evaluation in the suture area</p>	<p>Correctly take vital signs</p> <p>Place urinary catheters</p> <p>Take venous/arterial gases</p> <p>Take capillary glucometry</p> <p>Make a note of emergency progress</p> <p>Make the initial emergency note.</p> <p>Request material necessary for procedure.</p> <p>Suture wounds, after asepsis and antisepsis.</p> <p>Performs cures, after asepsis and antisepsis.</p>	<p>established electronic format.</p> <p>- Fill out the electronic forms for recording the procedures carried out in the Department.</p> <p>-Fill out the format of the electronic statistical journal of income and medical discharge.</p> <p>In the area of sutures and traumatology, perform the following:</p> <p>-Request the patient's Clinical Record to be able to make notes on the findings found, as well as record the requested diagnostic studies, as well as a description of the therapeutic procedures performed.</p>	<p><b>Procedural Content</b></p> <p>Management of the clinical record in accordance with the Official Mexican Standard for filling out the Clinical Record: registration of personal data; complete medical history; notes of findings, progress notes, diagnostic studies, therapeutic procedures, consultations, consent for medical treatment.</p> <p>Evaluation of patients and clinical cases.</p> <p>Preparation of the clinical history.</p> <p>Physical examination.</p>	
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	<p>Place sharps waste in rigid containers.</p> <p>Record the procedures in the clinical record .</p>	<ul style="list-style-type: none"> <li>- Assists Professors and Residents in special procedures to be performed in the suture room,</li> <li>-Record any type of clinical-surgical procedure in the clinical record.</li> <li>-Fill out the standardized forms</li> <li>-Identifies samples and delivers them to the nurse in charge.</li> <li>- Guides the patient about their follow-up in the corresponding service.</li> <li>-Request the necessary material to carry out the procedure that is warranted depending on the case, being responsible for its return.</li> <li>-Performs cures.</li> </ul>	<p>Oral and written presentation of clinical cases.</p> <p>Classification of emergencies in Triage.</p> <p>Mobilization and transfer of patients.</p> <p>Filling out laboratory and office exam request forms.</p> <p>Perform cures .</p> <p>Assists special procedures.</p> <p>Management of clinical and surgical material.</p>	
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		<p>Explains the indicated therapy to patients.</p> <p>-Verifies the correct registration of the patient in the computer system and in the admission and discharge diary, regarding personal data, as well as laboratory studies and examinations, presumptive diagnosis and procedures.</p> <p>-According to the patient's clinical situation, the MIP will deliver the complete file with the corresponding international classification of diseases (tenth edition, ICD-10).</p>	<p>Tissue Sample management</p> <p><b>Attitudinal Content</b></p> <p>Respect for the rules of conduct.</p> <p>Proper use of clothing and work materials and instruments.</p> <p>Respect for patients, patients' families, teachers, multidisciplinary team and colleagues.</p> <p>Teamwork.</p> <p>Appropriate use of language.</p>	
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		<p>in the area of observation and acute resuscitation, the student performs the following:</p> <ul style="list-style-type: none"> <li>-Receives the guard, verifying in the file the complete record of what was delivered, where laboratory and office studies are made explicit.</li> <li>-Carry out or manage the pending tasks of the assigned patient, from procedures to administrative procedures.</li> <li>-Collaborates with the nursing staff in the installation of the assigned patient in the room, where he removes clothing, places electrodes, ensures that the patient is identified and subsequently takes</li> </ul>		
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		<p>the medical history in the established format.</p> <p>- After preparing the clinical history, he presents the case to the professors and residents, who will give him instructions regarding the procedure to follow.</p> <p>-Supports nursing staff in the installation of probes, catheters, etc.</p> <p>-Supports and/or performs invasive procedures that the patient requires, under authorization and supervision of the Medical or Nursing staff in charge.</p>		
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		<ul style="list-style-type: none"><li>- Fill out the paperwork corresponding to the laboratory and office studies, as well as the interconsultations requested from your patient, integrating all of the above into the Clinical History and ensuring that it is attached to the file, ordered according to the Official Mexican Standard for filling out the Clinical Record.</li><li>-Assists support staff in the mobilization and transfer of patients.</li></ul>		
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		<p>- He is responsible for accompanying and caring for the patient at all times during transfers and carrying out laboratory and imaging studies.</p> <p>-Assists the resident doctor in resuscitation area , according to the Action Cards assigned to him from ABCDE. In these cases, he is in charge of preparing the Previous Medical Report (original and copy), to later present it to the resident doctor on duty and Professor, for his corresponding authorization and signature.</p>		
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		- It is responsible for verifying that the Informed Medical Treatment Consent is properly completed in the File.		
<p>7. Comprehensive evaluation of processes and products (weighting / summative evaluation)</p> <p>Clinical competencies (medical shift).....50%</p> <p>Attitudinal competencies,,,,,,,,,,,,,.....10%</p> <p>First exam.....10%</p> <p>Final exam.....20%</p> <p>PIA. Resolution of emergency clinical case.....10%</p> <p>Total.....100%</p>				
<p>8. Integrative learning product of the learning unit (PIA)</p> <p>.</p> <p>Resolution of clinical case that includes:</p> <ul style="list-style-type: none"> <li>• Physical examination.</li> <li>• Interpretation of office and laboratory exams.</li> <li>• Diagnosis and differential diagnoses.</li> <li>• Treatment and prognosis.</li> </ul>				
<p>9. Fuentes de apoyo y consulta (bibliografía, hemerografía, fuentes electrónicas).</p> <p>Medicina de Urgencias TEXTO BASE Judith E. Tintinalli, Ed. McGraw Hill-Interamericana, 8a Edición.</p> <p>Manual para Médicos del Advanced Trauma Life Support (ATLS) Editado por el American College of Surgeons, 10 edición.</p> <p>AHA actualización 2023</p>				

