1. Critical Care and Emergency Medicine Congress, 6-8 November 2013, Istanbul

Juliusz Jakubaszko

RELATIONSHIP OF EMERGENCY MEDICINE AND CRITICAL CARE



Some facts from late 60'

Peter Safar, William Shoemaker, Ake Grenvik -"Fathers of *Emergency Medicine* and Critical Care" described basics and necessity of **Immediate Care** as a new type of clinical practice and new doctors supra-speciality -

Some facts from late 80'

Expanding number of medical disciplines identified themselves with Intensive Care as a part of clinical activity: internal medicine, surgery, pediatrics, anesthesiology, emergency medicine,.....

EMERGENCY MEDICINE - INTENSIVE CARE

Prehospital Rescue Procedures Clinical Procedures of Emergency Medicine in ED

Acute patient in critical condition.

Clinical Procedures of Intensive Therapy in ICU

Some facts from late 90'...

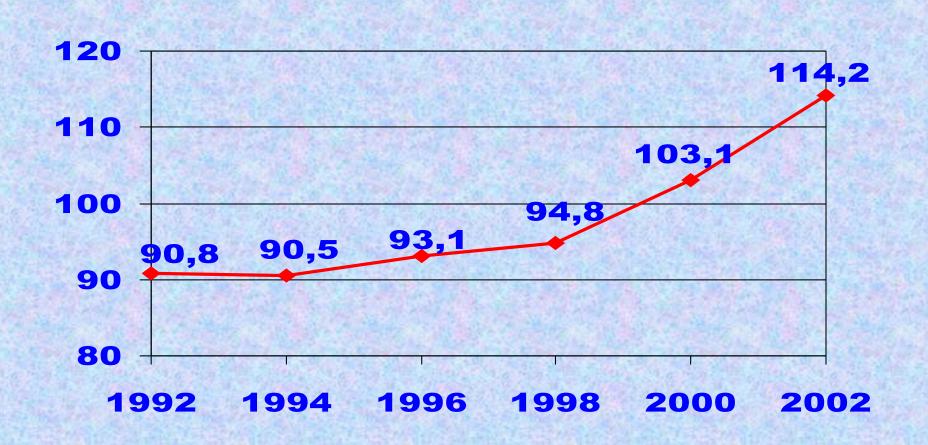
- -growing number of ED patients require critical care procedures
- -growing number of ED patients need admision to ITU
- -prolonged waiting time in ED for transfer to ITU
- -overcrowding of Emergency Departments

Intensive Care within Emergency Department

- Average time of patient's stay in ED is 6 h
- ✓ 30% of critical patients avaite in ED for free space in ITU
 - ✓ Awaiting time for free bed in ITU is 3 30 h Emergency Department must function apropriately as Intensive Care facilities

Buffer role of ED

Number of admissions to EDs in USA (milions)





The European Society for Emergency Medicine (EuSEM) incorporates a federation which currently includes 28 European national societies of Emergency Medicine and represents more than 12,000 emergency physicians in Europe.



EUROPEAN SOCIETY FOR EMERGENCY MEDICINE (EUSEM)

POLICY STATEMENT ON EMERGENCY MEDICINE IN EUROPE



WHAT IS EMERGENCY MEDICINE?

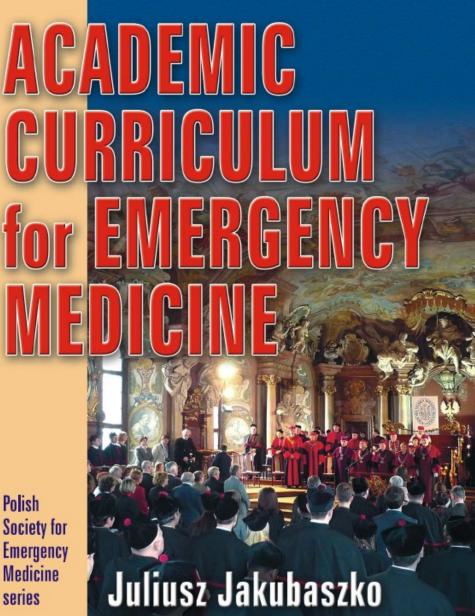
Emergency Medicine is a specialty based on the knowledge and skills required for the prevention, diagnosis and management of urgent and emergency aspects of illness and injury ... in which time is critical. The practice of Emergency Medicine encompasses the pre-hospital and in-hospital triage, resuscitation, initial assessment and management of undifferentiated urgent and emergency cases. It also includes involvement in the development of pre-hospital and in-hospital emergency medical systems.

WHAT IS THE CURRENT STATUS OF EMERGENCY MEDICINE IN EUROPE?

Emergency Medicine is currently recognised as an independent specialty in eleven member states of the European Union (EU Directive 2005/36/EC) ... high quality emergency care requires physicians with specialised training in Emergency Medicine because this is the most effective way (in both clinical and financial terms) to provide high quality care during the critical initial stages of emergency treatment. All European countries should thus work towards the establishment of Emergency Medicine as a primary medical specialty.

WHAT ARE THE PRINCIPLES OF EUSEM POLICY?

- In order to achieve these objectives EuSEM has the following aims:
- European competency-based core curriculum to include:
 - Patient Care
 - Medical Knowledge
 - Communication, collaboration and interpersonal skills
 - Professionalism, ethical and legal issues
 - Organisational planning and service management skills
 - Academic activities education and research
- Education and training programmes to deliver this core curriculum
- Assessment and examination structure to confirm that the necessary competencies have been acquired
- Clinical standards and a robust audit programme to ensure that these standards are being achieved
- Research projects to contribute to the development of an international evidence base for the specialty
- Inclusion of Emergency Medicine as a core part of the medical undergraduate curriculum









THE SPECIALTY OF EMERGENCY MEDICINE

The EU Doctors' Directive (2005/36/EC) includes Emergency Medicine as a primary specialty which requires at least five years of training.

WHAT TRAINING SHOULD BE REQUIRED TO PRACTICE EMERGENCY MEDICINE IN EUROPE?

The EU Doctors' Directive requires that training in Emergency Medicine should be for a minimum of five years. EuSEM has already published a European core curriculum for the specialty and is now working with a Multidisciplinary Joint Committee of the Union Europeenne des Medecins Specialistes (UEMS). This Committee is overseeing a revision of the core curriculum and is considering the principles involved in the establishment and organisation of training programmes of comparable standard in recognised departments across Europe.

PURPOSE OF THE EUROPEAN CURRICULUM FOR EMERGENCY MEDICINE

The main function and purpose of the European Curriculum for Emergency Medicine is the establishment and organisation of training programmes of comparable standard in recognised departments across Europe. EuSEM has already published a European core curriculum for the specialty. The present curriculum was developed by the Curriculum Task Force of EuSEM and the Multidisciplinary Joint Committee of the Union Européenne des Médecins Spécialistes (UEMS). The curriculum was agreed by the National Societies for Emergency Medicine of 15 European countries





European Curriculum for Emergency Medicine

A document of the EuSEM Task Force on Curriculum

approved by the Council and Federation National Societies of the European Society for Emergency Medicine, and by the UEMS Multidisciplinary Joint Committee on Emergency

Medicine, and by the Council of UEMS at their plenary meeting in Brussels on 25 April 2009

Final Version (April 2009)
Curriculum Committee Chair
Roberta Petrino, Italy
EuSEM President
Gunnar Ohlen, Sweden
UEMS MJC in EM Chairman, EuSEM Immediate Past President
David Williams, UK

CORE CURRICULUM in EMERGENCY MEDICINE

The orientation of training in Emergency Medicine shall encompass the following:

- Core Competencies of the European Emergency Physician
- Common Presenting Symptoms and Problems Core Knowledge
- System-Based Core Knowledge
- Specific Topics Core Knowledge
- Core Clinical Procedures and Skills.

3.5 Core Clinical Procedures and Skills

- 3.5.1 CPR Skills
- 3.5.2 Airway Management Skills
- 3.5.3 Analgesia and Sedation Skills
- 3.5.4 Breathing and Ventilation Management Skills
- 3.5.5 Circulatory Support and Cardiac Skills and Procedures
- 3.5.6 Diagnostic Procedures and Skills
- 3.5.7 ENT Skills and Procedures
- 3.5.8 Gastrointestinal Procedures
- 3.5.9 Genitourinary Procedures
- 3.5.10 Hygiene Skills and Procedures
- 3.5.11 Musculoskeletal Techniques
- 3.5.12 Neurological Skills and Procedures
- 3.5.13 Obstetric and Gynaecological Skills and Procedures
- 3.5.14 Ophthalmic Skills and Procedures
- 3.5.15 Temperature Control Procedures
- 3.5.16 Transportation of the Critically III Patient
- 3.5.17 Wound Management

Core Curriculum for Emergency Medicine in Europe

Good practice in emergency medicine will maximise the likelihood of a favourable outcome for the patient. Therapy should be consistent with current knowledge and care must be provided in a humane and respectful manner with psychosocial support available as required. There is no defined time limit to the duration of emergency care.

Core Curriculum for Emergency Medicine in Europe

Each country will have a National Training
Authority to visit and accredit centres to
national criteria, which will be based on, and
referenced to, European criteria. There should
be a programme of periodic re-visitation and
re-accreditation by representatives of the
National Training Authority.

Core Curriculum for Emergency Medicine in Europe

The variety of clinical material presenting to the emergency department demands the attention of a medical practitioner with significant breadth and depth of experience and knowledge, ensuring a detailed understanding of the patient's requirements

Who is an Emergency Physician?

- The Emergency Physician (EP) looks after patients with a wide range of pathologies from the life threatening to the self limiting in all age group.
- The EP is expert in establishing the diagnosis and differential diagnosis especially in life threatening situations.
- The EP is able to identify the critically ill and injured, provide safe and effective immediate care and establish the diagnosis and initiate or plan for definitive care.
- The EP is an expert in resuscitation, skilled in the practical procedures needed.

Who is an Emergency Physician?

- The EP safely and effectively differentiates and places patients on care pathways which lead to appropriate discharge with follow up when needed / admission to an ED based observation unit or admission into hospital.
- The EP works in the difficult and challenging environment of the Emergency Department and is able to re-prioritise and respond to new and urgent situations.
- The EP is part of a multi-disciplinary team where good communication and inter personal skills are essential.
- The EP is able to work both within and lead a team to ensure the patient's needs are met.

PATIENT CARE

- Triage
- Primary assessment and stabilisation of life threatening conditions
- Focused medical history
- Secondary assessment and immediate clinical management
- Clinical decision making
- Clinical documentation
- Re-evaluation and further management

Clinical decision making

Clinical decision making includes:

- re-triage
- immediate care initiated in the ED
- definitive care
- planning for admission or discharge.

Core Competencies for Emergency Medicine in Europe

Training programmes in emergency medicine should produce emergency physicians prepared with the following

basic competencies:

- 1. Provide for the recognition, resuscitation, stabilization, evaluation, and care of the full range of patients who present to the emergency department;
- 2. Apply critical thinking to determine the priorities for evaluation and treatment of multiple emergency department patients with different complaints and needs;
- 3. Evaluate oxygen supply, oxygen need, oxygen deficit and oxygen debt;
- 4. Arrange appropriate follow-up or referral as required;
- Manage the out-of-hospital care of the acutely ill or injured patient;

Get Full Access and More at

ExpertConsult.com

ROBERTS & HEDGES'

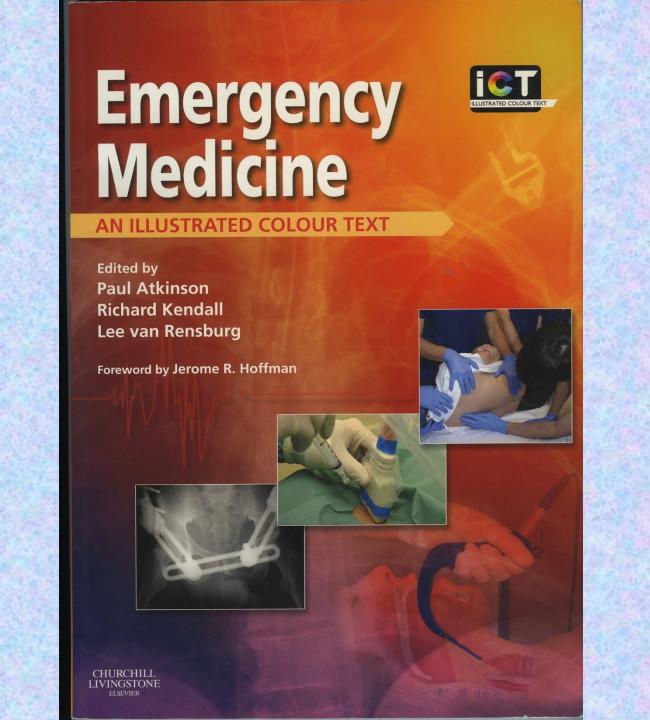
CLINICAL PROCEDURES in Emergency Medicine

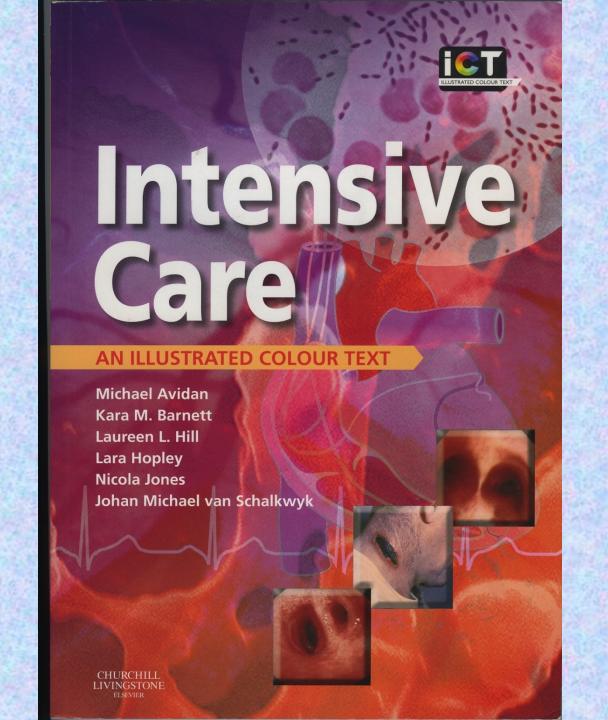


ROBERTS CUSTALOW THOMSEN CHANMUGAM CHUDNOFSKY DEBLIEUX MATTU

SWADRON

SIXTH EDITION





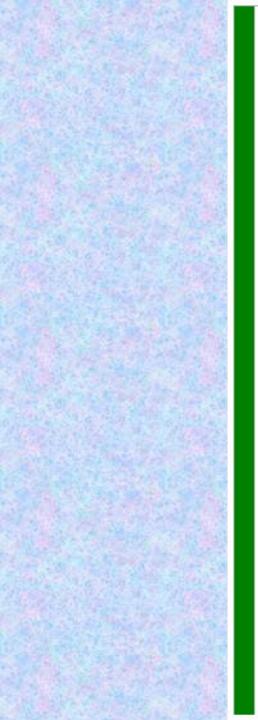
CONTENTS

SECTION VITAL SIGNS AND PATIENT MONITORING TECHNIQUES	SECTION III CARDIAC PROCEDURES
CHAPTER 1 Vital Signs Measurement 1 Diane L. Gorgas and J. Dave Barry	CHAPTER 11 Techniques for Supraventricular Tachycardias 197 Bobdan M. Minezak
CHAPTER 2 Devices for Assessing Oxygenation and Ventilation 22 Baruch Krauss and Phillip E. Mason	CHAPTER 12 Defibrillation and Cardioversion 2 Bobdan M. Minczak
SECTION RESPIRATORY PROCEDURES	CHAPTER 13 Assessment of Implantable Devices **James A. Pfaff and Robert T. Gerbardt**
CHAPTER 3 Basic Airway Management and Decision-Making 37 Robert E Reardon, Phillip E. Mason, and Joseph E. Clinton	CHAPTER 14 Basic Electrocardiographic Techniques 255 Richard A. Harrigan, Theodore C. Chan, and William J. Brady
CHAPTER 4 Tracheal Intubation 58 John W. McGill and Robert F. Reardon	CHAPTER 15 Emergency Cardiac Pacing 269 Edward S. Bessman 269
CHAPTER 5 Pharmacologic Adjuncts to Intubation 99 Laura R. Hopson and Richard B. Schwartz	CHAPTER 16 Pericardiocentesis 287 Richard J. Harper
CHAPTER 6 Cricothyrotomy and Transtracheal Jet Ventilation 110 Randy B. Hebert, Sudip Bose, and Sharon E. Mace	CHAPTER 17 Artificial Perfusion during Cardiac Arrest 308 Benjamin S. Abella and Lance B. Becker
CHAPTER 7 Tracheostomy Care 124 Kathleen A. Neacy	CHAPTER 18 Resuscitative Thoracotomy 312 Michael E. Boczar and Emanuel Rivers
CHAPTER 8 Mechanical Ventilation 138 Heatherlee Bailey and Lewis J. Kaplan CHAPTER 9 Thoracentesis 160	SECTION IV VASCULAR TECHNIQUES AN VOLUME SUPPORT
Barbara K. Blok CHAPTER 10 Tube Thoracostomy 175 Thomas D. Kirsch	CHAPTER 19 Pediatric Vascular Access and Blood Sampling Techniques 325 Marie M. Lozon

	SECTION VI SOFT TISSUE PROCEDURES
CHAPTER 20 Arterial Puncture and	34 Principles of Wound Management
	Richard L. Lammers
Dave Milzman and Tim Janchar	
L Intravenous	CHAPTER 35 Methods of Wound Closure 592
CHAPTER 21 Peripheral Intravenous	Richard L. Lammers
Access 364	
Shan W. Liu and Richard Zane	CHAPTER 36 Foreign Body Removal 634
CENTRAL VENOUS Catheterization and Central Venous Pressure Monitoring 374 Central Venous Pressure Monitoring 374	Daniel B. Stone and Matthew R. Levine
Bruce D. Adams, Matthew L. Lyon, and Full 1.	CHAPTER 37 Incision and Drainage 657 Kennetb H. Butler
CHAPTER 23 Venous Cutdown 411	
Patricia L. Lanter and Justin Williams	CHAPTER 38 Burn Care Procedures 692
	Courtney A. Bethel and Anthony S. Mazzeo
CHAPTER 24 Indwelling Vascular Devices: Emergency	
Diann M. Krywko and Cemal B. Sozener	VIII -
CHAPTER 25 Intraosseous Infusion 431	SECTION VII GASTROINTESTINAL
Kenneth Deitch	PROCEDURES
	20
CHAPTER 26 Alternative Methods of Drug	CHAPTER 39 Esophageal Foreign Bodies 715
Administration 443	David W. Munter
Steven J. Bauer and James H. Bryan	40
CHAPTER 27 Autotransfusion 451	CHAPTER 40 Nasogastric and Feeding Tube
Margarita E. Pena and Charlene Babcock Irvin	Placement 734
Margarita E. Pena and Charlene Babtock Irvin	Leonard E. Samuels
CHAPTER 28 Transfusion Therapy: Blood and Blood	41
Products and Reversal of Warfarin-Induced	Varices 754 CHAPTER 41 Balloon Tamponade of Gastroeson
Coagulopathy 463	
Diane L. Gorgas	Edward A. Panacek
	CHAPTER 42 Decontamination of the Passoned
	Patient 760
SECTION V ANESTHETIC AND ANALGESIC	
TECHNIQUES TECHNIQUES	CHAPTER 43 Peritoneal Proceedures
CHAPTER 29 Local and Topical Anesthesia 481	
Douglas L. McGee 481	Michael S. Runyon and John A. Marx
	CHAPTER AA ALL
CHAPTER 30 Regional Anesthesia of the Head and	CHAPTER 44 Abdominal Hernia Reduction
Neck 500 and the nead and	Michael T. Fitch and David E. Manthey
James T. Amsterdam and Kevin P. Kilgore	CHAPTER 45 Anorectal Procedures
Extremities 31 Nerve Blocks of the Thorax and	Wendy C. Coates
Extremities 513	Contes
Mark Spektor and John J. Kelly	
CHAPTER 32 Intravenous Regional	\$1000
Anesthesia 535	SECTION VIII MUSCULOSKEL
James R. Roberts and Sharon K. Carney	PROCEDURES
CHAPTER 33 Systemic Analgesia and Sedation for	
Procedures 540 Analgesia and Sedation 6	
Steven M. Green and Baruch Krauss	Thomas A. Brabson and Brett S. Greenfield
····ullss	CHAPTER 17
	Maria Halluska-Hard
	Tuttiska-11

Maria Halluska-Handy

CHAPTER 48 Extensor and Flexor Tendon Injuries in the Hand, Wrist, and Foot 847 Peter Erik Sokolove	CHAPTER 61 Spinal Puncture and Cerebrospinal Fluid Examination 1107 Brian D. Euerle
CHAPTER 49 Management of Common B69	CHAPTER 62 Special Neurologic Tests and Procedures 1128
Jacob W. Ufberg and Robert M. McNamara CHAPTER 50 Splinting Techniques 909 Carl R. Chudnofsky and Stacie E. Byers	7. Stephen Huff SECTION XI OPHTHALMOLOGIC, OTOLARYNGOLOGIC, AND
CHAPTER 51 Podiatric Procedures 932 Douglas L. McGee	CHAPTER 63 Ophthalmologic Procedures 1141
CHAPTER 52 Injection Therapy of Bursitis and Tendinitis 944 Brenda A. Foley and Theodore A. Christopher	Kevin J. Knoop, William R. Dennis, and Jerris R. Hedges CHAPTER 64 Otolaryngologic Procedures 1178
CHAPTER 53 Arthrocentesis 971 Steven 7. Parrillo, Daniel S. Morrison, and Edward A. Panacek	Ralph J. Riviello and N. Adam Brown CHAPTER 65 Emergency Dental Procedures 1217
CHAPTER 54 Compartment Syndrome Evaluation 986 Merle A. Carter	SECTION XII SPECIAL PROCEDURES
SECTION IX GENITOURINARY, OBSTETRIC, AND GYNECOLOGIC PROCEDURES	CHAPTER 66 Procedures Pertaining to Hypothermia a Hyperthermia 1235 Heather M. Prendergast and Timothy B. Erickson
CHAPTER 55 Urologic Procedures 1001 Michael A. Silverman and Robert E. Schneider	CHAPTER 67 Ultrasound-Guided Procedures 1259 Sarah A. Stahmer and Lisa Mackowiak Filippone
CHAPTER 56 Emergency Childbirth 1042 Beatrice D. Probst	CHAPTER 68 Bedside Laboratory and Microbiologic Procedures 1283 Anthony J. Dean and David C. Lee
CHAPTER 57 Culdocentesis 1063 G. Richard Braen and David Lee Pierce	CHAPTER 69 Standard Precautions and Infectious Exposure Management 1307
CHAPTER 58 Examination of the Sexual Assault Victim 1069 Carolyn Sacbs and Malinda Wbeeler	Peter Erik Sokolove CHAPTER 70 Educational Aspects of Emergency Department Procedures 1313
CHAPTER 59 Radiation in Pregnancy and Clinical Issues of Radiocontrast Agents 1084	Department Procedures 1313 Catherine B. Custalow and Amita Sudhir CHAPTER 71 Physical and Chemical Restraint 1319
Denis J. Dollard	Charles J. Fasano and Gregory Schneider
CHAPTER 60 Management of Increased Intracranial	APPENDIX Commonly Used Formulas and Calculations 1333 Brent E. Ruoff and Eric D. Katz
Pressure and Intracranial Shunts 1097	INDEX 1345



THE NATIONAL CENTER FOR MEDICAL POSTGRADUATE TRAINING



EMERGENCY MEDICINE Specialization program

Basic program for physicians

Emergency medicine as the primary specialization

Warsaw 2000

(c) Copyright by Centrum Medyczne Kształcenia Podyplomowego, Warszawa 2000

This specialization program was prepared by:

Prof. Juliusz Jakubaszko,MD PhD National Co-ordinator for Emergency Medicine

The following specialization program was prepared based on European Society for Emergency Medicine specialization guidelines, British Association for Accident and Emergency Medicine guidelines, European Resuscitation Council and American College of Emergency Physicians guidelines.

FORMS OF EDUCATION IN TRAINING PROGRAMME

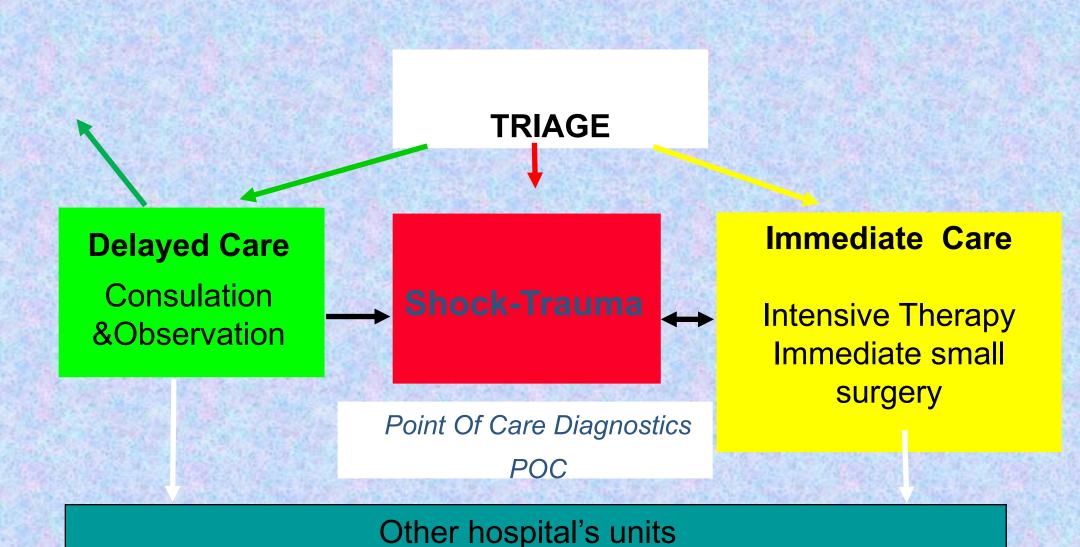
- Basic course; Introduction to emergency medicine
- Advanced courses (4 x): Progress in emergency medicine
- Evaluation course
- Specialist clinical training:
 - at least 2 years in full profile ED
 - at least 1 year in full profile ICU
 - at least 6 months in general surgery dept

FORMS OF EDUCATION IN TRAINING PROGRAMME

- at least 2 months in:
 - children dept
 - orthopaedic dept
 - internal diseases dept
- at least 1 month in:
 - psychiatry dept
 - gynaecology dept
 - anaesthesia dept
 - radiology dept
 - Academic Emergency Dept

Literature survey, preparing publication, activity in scientific societies for EM.

Emergency Department



Hospital Emergency Department



- triage area
- 🙆 resuscitation area
- 📵 observation unit
- 4 ICU
- consultation cubicles
- 6 diagnostic area
- 7 personel area































