

ANAESTHETIC RISK FACTORS, MECHANISMS AND PREVENTION

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The risk is an undesirable or dreaded event. Its probability may be decreased by the prevention, its severity by the protection and its perception reduced by the insurance acting on the acceptance and the transfer of the financial cost.

The security is a situation in which the activity process occurs without any damage for those who are undergoing or acting. Nevertheless the absolute security, with a zero risk level, is a myth but security must be a target taking in account realistic technical efforts and reasonable costs. The security in anaesthesia has considerably improved during these last two decades, by the fact of pharmacological and technological advances, introduction of standards and guidelines, education, evolution of structures and improvement of the anaesthetic team management. Anaesthesia linked mortality has been decreased by 20 in France between 1984 and 1999, evolving from 1/13.000 to 1/200.000. The reduction is evident for each ASA grade but mainly for the ASA 4 patients. Similar between 0 to 40 years old patients, the mortality increases after 40 and mainly after 75 years. The mortality has strongly decreased when in the same time the number of anaesthetics in France was twice the number, from 3.5 to 8.0 millions of anaesthetics, concerning patient older and presenting several pathologies. Nevertheless, the risk has changed. Twenty years ago, respiratory causes were the most frequent, but to-day the death by cardiac arrest, during and after anaesthesia, is mainly related to heart and vascular failures.

Depression of respiratory centres previously frequently involved has been reduced when difficult intubation and inhalation remain main causes. Among cardiac causes, the cardiogenic shock with or without myocardial infarction, due to anaemia and hypoxia is the main cause of death. Similarly, absolute hypovolaemia by haemorrhage and relative hypovolaemia by sympathoplegia are frequent mechanisms of acute cardiac failure.

The risk has diminished but mainly, the risk has changed. The analysis of accidents reveals active and latent risk factors. A modern tendency is to emphasise latent risks, which are intricate to active factors to lead to the accident. Human factors are usually involved in most of the anaesthetic accidents and near-miss incidents. Specific types of investigation are adapted to the various levels of risks.

Recently, new dangerous behaviours have appeared, linked to the search of analgesia, novelty, originality, performance, and paradoxically of security at any price. The anaesthesia risk is related to main risk factors involving anaesthesia team, techniques and procedures, devices, surroundings, information, organisation and management. Specific measures are recommended to avoid these risks but general arrangements must be focused on a selection of priorities, programmes of risk management based upon a better control of the patient status, of the anaesthesia process, of the organisation and team management and of the analysis of accidents.

Many progresses have been made but remain also to perform, mainly by a better organisation and management and a prevention of human errors. There is a need for a policy of risk management, a culture of security by the development of an evaluation of professional practice (EPP), as a part of the Continuing Professional Development (CPD).

ACTIVITY OF THE INTERNATIONAL ANESTHESIA TRAINING CENTRE IN MOLDOVA

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During the First International Congress of the Society of Anesthesiology Reanimatology of the Republic of Moldova was organized a meeting of the WFSA, ESA/NASC, SARRM, FEEA officials and Ministry of Health of the Republic of Moldova. The conclusion of the meeting was that for better anesthesia Moldova needs support in continuous education, improvement in technical & material, equipment & technologies and implementation of modern standards of care in the field. During the Congress, invited speakers and WFSA, ESA/NASC officials beside teaching and presentation activity visited many hospitals for creating an impression documentation of the current situation.

Decision to focus efforts in improvement of situation in anesthesia was made: in short time after Congress, in December 2007 was organized First Course in Pediatric Anesthesia in Moldova. Why pediatrics – the answer is clear: because together with obstetric anesthesia this are the most vulnerable subspecialties in current created situation in Moldova (political and social instability, poorly developed economy, lack of equipment, medical insurance system in development, lack of modern equipment and drugs in anesthesia).

The First Course was organized on 19-21 December and had many aspects: training of trainers: Moldavian anesthesiologist Gabriela Munteanu had a fellowship in Switzerland in the field of pediatric anesthesia, and together with Markus Schily she prepared