In the dental practice or in the ambulatory of oral and maxillo-facial surgery, there may be real medical emergencies, emergencies in which the speed of effective measures is essential. A good knowledge of the things to be done in the practice, as first representatives of the medical shield in defence against the inexorable secures the winning of precious seconds. Medical care in dentistry and dentoalveolar surgery involves two seemingly different aspects: a well-defined technical one, of strict specialty, and another less well defined, which practically includes all the particularities of the patient coming to the dental practice. However precise the dental technique and the practitioner’s skill are, if the specific conditions of each patient are not taken into account, the medical benefit cannot rise to a high level, and the final result may be compromised by complications with unforeseen risks. The study included 7,996 patients resolved in the Oral and Maxillo-facial Surgery Clinic (Ambulatory), in the period from 1.02.2014 to 31.12.2018. The superficiality of a seemingly healthy patient approach may lead to the disregard of some important aspects with a predictive role in the triggering of a medical emergency, as an informational history must be more than an orderly list of symptoms. You always gain something by listening to patients and observing the way they talk about their symptoms. The crossed statistical deductions on the explored data revealed, based on the majority percentages obtained on each studied index, that the following have an extremely important aspect for the dental practice and dentoalveolar surgery: the dental anxiety level as well as the patient’s general status are the landmarks that require the greatest attention from the practitioner for the purpose of preventing medical emergencies.

Keywords: dentoalveolar surgery, diagnosis, clinical examination, dental therapy.
apparatus is required for a more objective assessment of their functionality.

Complementary examinations are always guided by the data collected by the medical and surgical history. Paraclinical laboratory examinations complete the general clinical examination.

Any dental care has a traumatic character even for a patient considered to be healthy before, even more so if it is the case of a patient with the field under particular physiological conditions or bodies with chronic disorders.

Operational trauma disturbs the patient's overall neuro-hormonal balance, directly related to the intensity of aggression (anaesthetic-surgical), but also to the reactive capacity of the tissue subject to dental care.

The importance of the anaesthetic-surgical act must not exceed the functional reserves of the body because the disequilibrium of these three factors results in the endangering of the patient - the so-called surgical risk.

Depending on the general, psychological and organic state, on the importance of surgical act (reflexogenic areas, vascular and nervous tractions, predictable duration of anaesthesia), the practitioner's judgment is addressed to patients who come for surgery.

Emergency in dentistry occurs as an unpredictable pathological condition, unexpected in terms of manifestations and duration, susceptible in some cases to compromise the vital and functional prognosis of the patient.

In assessing the emergency, the three vital functions are taken into account: consciousness, breathing and movement; consideration should be given to the interdependence of the vital functions, a deficiency that leads to a vicious circle, to a decompensation of the other functions which, if not quickly controlled and balanced, may result in the death of the patient.

The clinical translation of an emergency situation, namely of sufferance of vital functions, must be searched, investigated accurately and early at neurological, ventilatory and cardiovascular level, since the medical gestures to be instituted are of utmost importance, in fact of immediate survival.

For the recognition of medical emergency, the dentist must appreciate skilfully and quickly: brain injury, breathing difficulties, cardio-circulatory problems.

The success of therapy in acute cases depends on rapid and accurate recognition of the emergency situation and the first resuscitation measures applied.

Most emergencies consist of combining disturbances in the state of consciousness, in respiratory functions and/or in the cardio-circulatory apparatus. Disturbances of these vital functions must be quickly identified within 30 seconds, and therefore we cannot afford a detailed diagnosis.

The struggle for survival is counted in minutes, in stopping breathing (respiratory arrest) and in seconds in cardio-circulatory arrest (cardiac arrest).

If the patient resumes spontaneous breathing, the heart shows signs of recovery, the pupils become reactive, with the fastest means of transport at our disposal, we should ensure the patient's transfer to an intensive care service. The fastest means of transport at our disposal, we should ensure the patient's transfer to an intensive care service.

In everyday practice, the frequently encountered picture of accidents in the dental practice is that of vasovagal syncope-fainting, passive faintness, and rarely peripheral vascular collapse.

The determining factor in faintness and syncope is the anoxia occurred in the case of anaemia and the volume of low circulating fluid; increased levels of CO₂ in the blood; acute or chronic hypoxia.
Patients stigmatized as vegetative have a strong vasodilatation, frequent especially in young people, boys and girls during puberty, asthma, vasodilation of sometimes minor factors. They are the ones who suffer from the majority of faintness disorders. Vertigo (dizziness) is the prodrôme of vasovagal syncpe. The syncpe produced by the central nervous mechanism can be: cardiac syncpe (white), respiratory syncpe (blue) and total syncpe. Whatever the beginning, the untreated syncpe can quickly become total, because vital functions, breathing and circulation cannot persist for long independently, one without the other.

The cardio-circulatory arrest is defined as a sudden and unexpected cessation of the cardio-circulatory function. It may appear as a syncpe complication but also as a consequence of a respiratory arrest, allergic accident or seizure. Accidental death by cardiac arrest, occurring in previously apparently healthy people, is the most emergent and worst case encountered by the dental practitioner and oral surgeon.

Cardiac arrest occurs unexpectedly. Alarm signs are rarely reported: sudden pallor or increased cyanosis; severe bradycardia; cardiac arrhythmias; severe tachycardia; severe hypotension; IRA. The cardiac arrest can also be installed without alarm signs and is characterized by: loss of patient’s consciousness (coma), absence of pulse in the carotid artery; apnea; mydriasis; accentuated pallor, or cyanosis. The absence of the pulse at the carotid, but not accompanied by the absence of photomotor reflexes, translates into a recent cardiac arrest.

Loco-regional anaesthetics can provide both immediate and late-type allergic accidents. Among the local anaesthetics, novocaine provides the highest number of allergic accidents.

The most important clinical manifestations of allergies are: anaphylactic shock - rare, but particularly severe; Quincke’s edema, bronchial asthma crisis.

The onset of epileptic seizure is favoured by overwork, acute infections, alcohol ingestion, or abrupt withdrawal of anticonvulant medication.

The medical emergency is a complex clinical situation requiring prompt, rapid and direct intervention by establishing etiological factors and of diagnosis to act targeted in the shortest possible time. In order to treat an emergency in the dental practice, the doctor should act quickly, as every second is precious. Decisions taken can tilt the balance in favour of restoring the patient’s condition or, on the contrary, can aggravate the situation. The quality and safety of the practitioner’s actions are indispensable for resolving medical emergencies.

Fortunately, in dental practice, emergency does not occur frequently in the dental practice, but if it occurs, the correct and prompt reaction of the doctor can and must save the patient’s life.

In emergency cases, more than anywhere in medicine, “science and consciousness” must be used for saving the life of the patient who is between life and death.

**Experimental part**

**Material and methods**

The study includes 7,996 patients resolved in the Oral and Maxillofacial Surgery Clinic (Ambulatory), in the period from 01.02.2014 to 31.12.2018.

Surgical work that ranked first in the top of the interventions was: dental extraction - 3031 patients (38.14%); incision, evacuation of peri-maxillary abscess drainage - 1822 patients (22.93%); apical resection - 1218 patients (15.32%); endodontic drainage - 855 patients (10.76%); suture of face wounds - 477 patients (6%); alveolar ridge regularization - 358 patients (4.5%); gingivectomy 187 patients (2.3%).

**Results and discussions**

Of the total of 7,996 patients as the first stage of the study, we were interested in their distribution on the medical emergency variable. 87.10% that is 6,965 patients did not trigger medical emergencies during dentoalveolar surgery. 12.90% that is 1031 patients triggered medical emergencies during dentoalveolar surgery.

At the level of the 1031 patients who triggered medical emergencies during dentoalveolar surgery, we continued to focus on our study on the distribution of the type of medical emergency that they triggered: 38% triggered acute hypotensive failure (vasovagal syncope, orthostatic syncope, pregnancy syncope, carotid sinus syndrome), 35% triggered cardio-circulatory emergencies (rhythm disorders, blood pressure crises, angina pectoris); 11% triggered allergic accidents; 9% triggered neurological emergencies; 7% triggered other types of emergencies.

We believe that in this context, particular attention should be paid to the detailed knowledge of all clinical manifestations of medical emergencies, the role of the practitioner being crucial in setting up emergency therapy.

It has been concluded that both men and women have the potential to trigger a medical emergency but men are more exposed to trigger an unforeseen medical event during dental therapy or dentoalveolar surgery. The installation of a medical emergency is influenced by the patient’s age, young people (21-30, 31-40 years) being more inclined to trigger an unexpected medical event.

During dental or dental- alveolar surgery, the installation of a medical emergency is influenced by the patient’s condition. Although the highest percentage is held by apparently healthy patients, patients with pre-existing general conditions have also shown a clear predisposition to trigger an unexpected medical event.

The level of dental anxiety as well as the general status of the patient are the landmarks that require the greatest attention from the practitioner for the purpose of preventing medical emergencies.

In those patients who triggered medical emergencies, we performed dental works and dentoalveolar surgery. Surgery was ranked first in the top of interventions: dental extraction-48%, incision, evacuation and drainage of peri-maxillary abscess-22%; suture of facial wounds - 18%; apical resection-12%.

During dental therapy or dentoalveolar surgery, the installation of a medical emergency is strongly influenced by the type of intervention the patient undergoes.

The installation of a medical emergency is strongly influenced by the lack of premedication used to perform the dental or surgical intervention to which the patient is subjected to.

**Conclusions**

Patient-specific predictive risk factors (gender, age, history, dental anxiety score) as evidenced by our research are unlikely to separately define the risk potential for the occurrence of medical emergencies.

The simple act of the medical-surgical history gives the physician the opportunity to establish or accentuate the special link, which is the basis of the doctor-patient relationship.
Whatever the patient’s attitude, the physician should investigate, specify, and take into account the terrain on which a pathological condition occurs.

References
1.***AHA Guideline, 2004, Evidence Based Guidelines for Cardiovascular Disease Prevention in women.J.Circulation, 109; 672-693.
2.***American Heart Association, 2004:Heart Disease and Stroke Statistics.Update, Dallas.
3.BALAN H., IORDACHE N., 2005, Urgente medicochirurgicale (Medical-Surgical Emergencies.)
4.BADESCU M., CIOCOIU M, 2003, Fiziopatologie special (Special pathophysiology) Cantes Publishing House, Iasi.
5.BUCUR A., CIOACA R., 2004.Urgente si afectiuni medicale in cabinetul stomatologic (Emergencies and medical conditions in the dental practice) Etna Publishing House, Bucharest.
6.DINESCU N.N., VORONEANU M., 2003.Accente moderne privind riscul pacientului cardio-vascular in chirurgia orala. (Modern Impact in terms of the Cardiovascular Patient Risk in Oral Surgery) Supl.Rev. Medicina Stomatologică, 7(4):39-43.
7.SCUTARIU, M.M., DANILA, V., CIUPILAN, C., CIURCANU, O.E., Semiology of the Pain Syndrome-Identifying the Ideal Methods of Locoregional Anesthesia Based on Their Rationale and Features, Rev. Chim.(Bucharest), 68, no.10, 2017, p. 2373-2377
8.CIURCANU OE, FORNA DA, POPA C, SCUTARIU MM, Implementation of methods of loco-regional anesthesia in dental surgery ROMANIAN JOURNAL OF ORAL REHABILITATION 2017, Vol 9 (4), 120-127
9.DRAGAN, F, KACSO, I, DREVE, S, MARTIN, F, BORODI, G, BRATU, I, EARAR, K Compatibility Study of Ibuprofen with Some Excipients Employed for Solid Dosage Forms, Rev. Chim.(Bucharest), 66, no.2, 2015, p.191-195
10.BEJAN, C., MATEI, M.N., DOROBAT, C., JUGANARIU, G., DOROBAT, G., CONSTANTINESCU, S., NECHITA, A., EARAR, K., Biochemical Features in Hepato-renal Dysfunctions, Rev. Chim.(Bucharest), 66, no.2, 2015, p.282-284
11.DINESCU N.N., Implicatiile statutului cardio-vascular in chirurgia orala de ambulator (Implications of Cardiovascular Status in Outpatient Oral Surgery) PhD thesis, Gr.T.Popa UMF Iasi.
12.ROTARU AL., BACIUT G., BACIUT M., 2003.Chirurgie maxilo-faciala (Maxillofacial surgery) vol.II Edit. Medicala, Cluj Napoca.

Manuscript received: 4.07.2018