Syncope is defined as a transient loss of consciousness (T-LOC) due to transient global cerebral hypoperfusion, characterized by rapid onset, short duration, and spontaneous complete recovery. It is a common event in childhood and adolescence; usually of benign significance, it may be the first manifestation of a serious disease.

The aim of this study was to review all patients admitted in our Emergency Unit for a T-LOC in a 4 years period of time, in order to determine the incidence in the general paediatric population, and the aetiology.

From January 2007 to January 2011 307 children (aged 1 to 18 years old, median age 9 years and 8 months) were admitted in our General Paediatric Emergency Unit for a non-traumatic T-LOC. They were classified according to the 2009 ESC guidelines. A clear aetiological diagnosis was possible in 293/307 cases (95.4%). 68 cases of 293 were excluded because of a diagnosis not matching the syncope criteria.

Two hundred twenty five patients were classified as having experienced a syncope (73.2% of the totality LOC); reflex syncope were 210 (93.3% of syncope, 198 vasovagal, 12 situational); ortostatic hypotension caused the LOC in 7 (3.1% of syncope), cardiac syncope was diagnosed in 6 patients (2.6%) with the following arrhythmias or proarrhythmic conditions: one sudden complete AV block in acute rheumatic fever, one atrial flutter in post-operative complex congenital heart disease, one paroxysmal supraventricular tachycardia, one recurrent ventricular tachycardia in cardiac fibroma and two long QT syndromes.

The incidence of syncope in the paediatric population of Parma during a 4-year period resulted in 86.5/100,000 per year.

Our experience presents the data of a General Paediatric Emergency Unit, the unique in our area, with a non-selected population of patients and may represent the real incidence in our area. Our study confirmed that syncope in paediatric patients, usually benign in the majority of cases, in a small percentage of patients may be the first manifestation of a serious underlying condition. In our opinion the ECG is mandatory in every case.