"Diagnosis Related Groups", traffic accidents and hospital costs. Clinical features and costs of 741 patients hospitalized by traffic accidents in the triennium 2012-2014, in "La Asistencial Médica Departmental de Maldonado, Uruguay.

Authors: Alberto Scasso¹, Elbio Paolillo¹, Diego Genta¹, Silvina Tortorella¹, Guillermo Tabares²

Introduction
The average mortality from traffic accidents in Uruguay was 16 death per 100,000 / person / year in the last triennium; while in the Department of Maldonado this ratio rose up to 24.3 in the same period. Despite its importance, reliable data on costs incurred in process of care of the injuries are unknown.

Objective: provide clinical, epidemiologic and costs data of patients hospitalized in La Asistencial Médica Departmental de Maldonado after suffer a traffic accident. We hope that the present work will be a contribution to the Pillar 5 "response after accidents" Global Plan of Action for Road Safety 2011-2020 United Nations.

Methods
Analysis of the 741 discharges from patients admitted in the hospitals of the Asistencial Médica Departmental de Maldonado as a consequence of a traffic accident in the years 2012, 2013 and 2014. All histories were individualized with an additional code of the International Classification Disease (ICD-10) contained within the Chapter Transport Accident, recorded between V-01 to V-89.

For coding, printed versions of the ICD 10 for morbidity and ICD 9 MC for diagnostic and/or therapeutic procedures of the WHO were manually entered to the computer system PROYECAM by means of the module CODIFICA_HC, which allows record a code for the principal diagnosis and seven codes for secondary diagnoses.

The grouping in Diagnosis Related Groups (DRG) was done automatically using a grouping software. The cost of each injured patient was obtained from the emergent GRD, using the ECAS charts of (Estructura de Costos de AtenciÃ³n a Afiliados = Cost Structure of Affiliates Assistance), an information officially sent to the Department of Public Health. We used a costing program developed for Uruguay by the International Institute of Global Health (IIGH) of the University of the United Nations.

The sample was worked as a whole, without removing outliers, since by removing observations we would be losing part of the incurred costs.

Results
There were 741 discharges for accidents, with an average stay of 7.5 days and 857 days bed occupied in intensive care. 77 per cent were motorcyclists, 65 per cent were males and the average age was 36 years. The cost of attention of a patient of this group was twice and a half higher and the hospital stay was almost the double of an average patient.

The mortality in this group of injured that came alive at hospital was 2.41 per cent.

The medical and surgical patients were allocated to almost all the Major Diagnostic Categories (MDC), being mostly neurological, respiratory and trauma.

Conclusions
Care process of patients who have suffered a traffic accident and admitted to the hospital is very complex and care continuity is put to test. It involves all healthcare services and additionally they need infirmary care, physical rehabilitation, psychological and social support.

By sample selection, we include the cases from the cause (the accident) which motivates that the distribution of GRD in this study is not normal, as usual.

We should consider 7.5 days of stay in average and two and a half higher cost of these patients, as an opportunity to improve care. In the future we intend to create efficient "teams" of interdisciplinary work and a specific clinical guide for this patients' typology, which constitute a new disease entity more and more
frequent, that demands new forms of care.

1. Maldonado, Asistencial Médica de Maldonado, Maldonado, Maldonado, Uruguay.
2. Córdoba, Avedian, Córdoba, Córdoba, Argentina.