A211 - Impact of protocoled nursing care on quality performance measures in patients with severe trauma

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Introduction:
Trauma remains the leading cause of death all over the world. To better exploit the trauma care system, precise diagnosis of the injury site and prompt control of bleeding are essential. Here, we created a nursing protocol for initial medical care for trauma. The aim of this study was to evaluate the impact of protocoled nursing care for trauma on measures of quality performance.

Methods:
This was a retrospective historical control study, consisted of consecutive severe trauma patients (Injury Severity Score >16). People were divided into two groups: protocoled group (from April 2017 to March 2019) and control group (from April 2014 to March 2017). We set the primary endpoint as mortality for bleeding. The secondary endpoints included time allotted from arrival to start of CT scan and surgery, administration rate of several drugs (sedations, painkillers, preoperative antibiotics, and tranexamic acid). For the statistical analysis, continuous variables were expressed as median (interquartile range) and were compared by Wilcoxon rank sum tests given a non-normal distribution of the data.

Results:
We included 152 patients in the study: 84 in the control group before the introduction of the protocol, 68 in the protocoled group. As a primary endpoint, the mortality for bleeding was similar between two groups (5% in the control group and 5% in the protocoled group). As a secondary endpoint, the time to CT initiation [Group A 11 (7-16) min vs Group B 7 (5-10) min; p <0.001], and emergency procedure [Group A 41 (33-56) min vs group B (29-43); p <0.001] were shortened by the protocol introduction. Furthermore, the administration rates of sedations, painkillers, preoperative antibiotics, and tranexamic acid were increased in the protocoled group compared with the control group.

Conclusion:
Although the mortality as a patient-oriented outcome was not affected, improved quality of medical care by nursing protocol introduction may be suggested in this analysis.