

# Pengaruh faktor keparahan cedera anatomic terhadap kematian. Kasus cedera di Instalasi Gawat Darurat Rumah Sakit Umum Pendidikan Nasional DR. Cipto Mangunkusumo Jakarta, Januari-Desember 1993

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## Abstrak

### <b>ABSTRAK</b>

Dalam dekade ini, insidens cedera yang termasuk kelompok penyakit tidak menular, terjadi peningkatan dan dinamakan Epidemi Baru. Di Negara Barat terkenal dengan "penyakit kelalaian masyarakat modern". Data dari Amerika maupun Indonesia, menunjukkan cedera merupakan penyebab kematian no-4, terutama pada usia muda dan diharapkan sebagai generasi penerus menjadi sumber daya manusia yang produktif. Selain mortalitas, cedera menyebabkan morbiditas seperti kecacatan dan ketidak-mampuan.

Tujuan penelitian untuk mengetahui pengaruh faktor keparahan cedera anatomic terhadap kematian kasus cedera di IGD RSUPN CM Jakarta. hasil penelitian diharapkan memberikan sumbangan pemikiran bagi pengelola program dan para pengambil keputusan, disamping sebagai masukkan dunia ilmu pengetahuan di Indonesia.

Disain penelitian ini adalah Kasus Kontrol. Kasus Penelitian adalah kasus cedera yang dirawat di IGD atau mati sesudah dirawat ngingap dalam waktu >7 hari dari saat masuk IGD RSUPN CSI.

Kontrol Penelitian adalah kasus cedera yang hidup >7 hari dari saat masuk IGD RSUPN CM. Jumlah kasus 216 dengan kontrol 221. Penelitian ini tidak melakukan matching. OR (Odds Ratio) kematian diperhitungkan dengan analisis regresi logistik multivariat.

Faktor yang diteliti adalah:1) Karakteristik Manusia (umur dan Jenis kelamin); 2) Karakteristik Cedera (nilai keparahan cedera anatomic nilai keparahan cedera fisiologis dan mekanisme cedera) serta 3) Manajemen Cedera (rujukan dari Rumah Sakit lain, angkutan kasus ke IGD, waktu pra IGD, waktu masuk IGD dan penanganan operasi).

Hipotesis penelitian adalah pengaruh dari keparahan cedera kepala terhadap kematian kasus >7 hari. Cedera lokasi anatomic lain merupakan variabel kontrol dan dianalisis bersama-sama. Penilaian keparahan cedera anatomic menggunakan skala Anatomic Profile (skala AP). Dari penilaian keparahan cedera fisiologis dengan nilai Revised Trauma Score (RTS).

Hasil penelitian ini menunjukkan pengaruh nilai keparahan cedera kepala terhadap kematian kasus cedera >7 hari yaitu OR nilai AP 3,4,5,6 dan 7 dibandingkan nilai AP <3 masing-masing AP 3 (3-3.99) 1.14 kali (95% CI:0.27-4.86). nilai AP 4 (4-4.99) 1.30 kali (95% CI:0.39-4.32), nilai AP 5 (5-5.99) 4.84 kali (95% CI: 3.43-16.44), AP 6 (6-6.99) 8.49 kali (95% CI:2.33-30.92) dan nilai AP x7 12.20 kali (95% CI:2.64-56.43). OR lokasi lainnya dari cedera kepala (dengan skala kontinu) terdiri dari nilai keparahan cedera dada 1.18

kali (95% CI:0.84-1.64), cedera perut 1.65-kali (95% CI: 1.21-2.25) dan cedera lainnya 1.30 kali (95% CI:1.03-1.62).

OR variabel kontrol lain adalah nilai keparahan cedera fisiologis 0.29 kali (95% CI:0.22-0.41) mekanisme cedera terdiri dari cedera jatuh 4.41 kali (95% CI:1.34-14.47) dan mekanisme cedera lain 1.73 kali (95% CI: 0.91-4.83) yang dibandingkan dengan mekanisme tabrakan kendaraan bermotor. Kemudian risiko waktu masuk IGD siang (jam 06.00-17.59) sebesar 2.00 kali (95% CI:1.11-3.59) dibandingkan masuk IGD malam- (jam 18.00-05.59) dan adanya penanganan operasi 0.16 kali (95% CI:0.07-0.38) dibandingkan yang tidak dioperasi.

Saran yang dapat diberikan berdasarkan hasil penelitian adalah melakukan penilaian keparahan pasien cedera yang masuk IGD RSQPN CM dengan skala Anatomic Profile (AP) dan sekaligus dengan penilaian keparahan cedera fisiologis yaitu skala RTS (Revised Trauma Score). Penilaian ini berguna untuk evaluasi kualitas penanganan kasus cedera. Pengembangan penilaian keparahan ini adalah dilakukan pada semua rumah sakit yang ada IGD.

Daftar bacaan: 64 (1977-1995)

**ABSTRACT**

The Association between the Degree of Anatomical Injury and Fatality of Injury Patients at the Emergency Department of DR. Cipto Mangunkusumo National General Hospital, Jakarta, January - December, 1993  
In the past decade, the incidence of injury, which is a non-infectious disease, increased and was termed the New Epidemic. In the developed countries it is called "The Neglected Disease of modern society.. Data from Indonesia and USA showed that injury is the fourth cause of death, especially among the younger age groups, which are the productive age groups and the future generation of Indonesia. Beside the magnitude of mortality, injury also causes increased morbidity, disability and invalidity.

The objective of this study is to assess the association between the severity of anatomical injury and the fatality of injury patients at the Emergency Department of DR. Cipto Mangunkusumo General Hospital. It is anticipated that the results of this study would be useful for program managers and decision makers, and at the same time would contribute to the overall information on injury in Indonesia.

The study was designed as a case-control study. Cases were fatal injury patients who died at the Emergency Department or who died within 7 days after admission. Control were injury patients who survived at least 7 days after admission. A total of 216 cases and 221 controls were obtained. No matching was performed. The odds ratio for fatality between cases and controls were calculated using multiple logistic regression method.

The factors that were controlled for were: (1) subject characteristics (age, sex); (2) injury characteristics (anatomical injury severity, physiological injury severity, and type of injury mechanism) ; (3) injury management factors (referrals from other hospitals, means of transportation, length of pre-emergency periods, time of day the admission, and the fact of any definitive operation performed).

The hypothesis to be tested was the association between of head injury and fatality. Injury of other

anatomical areas were treated as separate variables for control and simultaneous associative analysis. The severity of anatomical injury was quantified using the Anatomic Profile Scale (AP scale) . The severity of physiological injury was quantified using Revised Trauma Score (RTS).

Result of analysis showed that, as compared with injuries with AP score of c3 for head injuries, the injuries having an AP score of 3, 4, 5, 6, and 7 for head injuries had odds ratio of 1.14 (95% CI:0.27-4.86), 1.30 (95% CI:0.39-4.32), 4.84 (95% CI: 1.43-16.44), 8.49 (95% CI:2.33-30.92) and 12.20 (95% CI:2.64-56.43), respectively, after controlling for the other variables mentioned above.

Odds ratio for injuries at other anatomical areas (whose AP scores treated as continuous variables) were: chest injury: 1.3.8 (95% CI:0.84-1.64), abdominal injury: 1.65 (95% CI:1.21-2.25), and other areas of injury: 1.30 (95% CI:1.03-1.62). Other odds ratio were: physiological injury severity (RTS score) : 0.29 (95% CI:0.22-0.41), injury mechanisms: fall: 4.41 (95% CI:1.34-14.47), others: 1.73 (95% CI:0.91-4.83) - (compared to motor vehicle injuries); admission during the day: 2.00 (95% CI:1.11-3.59) (compared to admission during the night)] having a definitive operation performed: 0.16 (95% CI:0.07-0.38) (compared to not having a definitive operation performed).

The result of the study indicated the appropriateness of using the AP score and the RTS to asses the anatomical and physiological injury severity respectively. This scoring system should be implemented at the Emergency Departments of all hospitals to assist in the audit of emergency department performance.

References: 64 (1977-1995)</i>