

= Abstract =

## Analysis of Emergency Department Medical Records of Teaching Hospitals in Korea

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**Background:** This study was designed to analyze the current emergency department(ED) medical records of teaching hospitals in Korea.

**Methods:** The five-item questionnaires were mailed to the EDs of 40 hospitals. Among them, 27 questionnaires and 35 ED medical records were returned for reply rates of 67.5% and 87.5%, respectively.

**Results:** 1) The actual number of data elements in the ED medical records used by each hospital varies widely. It ranges from 1 to 15 data elements with an average of 7.5 data elements. 2) Thirteen data elements, signature of nurse, checklist style in review of systems, checklist style in physical examination, neurologic examination, figure of face, Glasgow coma scale, trauma scale, treatment plan, mode of transfer, condition on transfer, documents sent with patient, condition on discharge or discharge instruction, use of pediatric chart and vaccination history are used by less than 50% of the medical records examined. 3) There was no difference in the total number of data elements or in redesign and computerization of ED medical record based on the location of the hospital, the type of hospital administration, or the number of years since the start of EM residency program. 4) There was a statistically increased number of data elements in redesigned medical records. 5) In the survey, 89% of the residents replied that medical records needed to be redesigned. With respect to uniformity, 58% of the residents disagreed. A well-designed checklist chart rather than a descriptive chart was preferred by 89% of the residents.

**Conclusion:** The currently used ED medical records have much room for improvement. The age of the ED had little impact on the quality of ED medical records. More attention and effort in this field are needed. In addition, The Korean Society of Emergency Medicine should provide guidelines for ED medical records.

**Key Words:** ED medical record, Data element, Redesign

I.

27

5

(1, 3). 27

24

가

23

가 ,

가,

가

가

가

SPSS 10.0

가

0.05

Fishe's Exact , chi-

가

가

square , two-independent , k-independent

t

10

99

40

III.

가

1.

35

27

87.5%,

67.5%

. 35

14 (40%),

21

(60%)

6 (17.1%),

29 (82.9%)

4

19 (54.3%)

4.94 1 ~ 3

II.

10 (28.6%), 4 ~ 6

19

1999

40 (54.3%), 7

6 (17.1%)

2.

7.8±

1992 ACEP(American

4.03

가

1

College of Emergency Physicians)

가

15

15

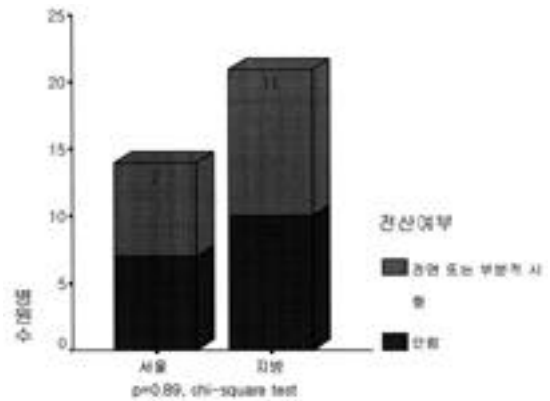
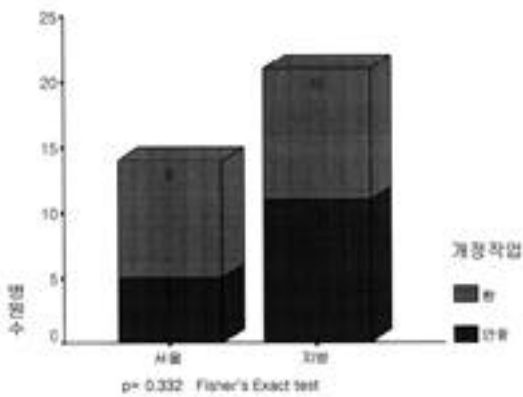
. 27

3

가 가

1.

	(%)	(%)
	23(65.7)	12(34.3)
	14(40.0)	21(60.0)
	32(91.4)	3(8.6)
	18(51.4)	17(48.6)
	18(51.4)	17(48.6)
가	23(65.7)	12(34.3)
,	19(54.3)	16(45.7)
	13(37.1)	22(62.9)
	11(31.4)	24(68.6)
	4(11.4)	31(88.6)
	18(51.4)	17(48.6)
	5(14.3)	30(85.7)
(Trauma score)	24(68.6)	11(31.4)
	16(45.7)	19(54.3)
	4(11.4)	31(88.6)
	10(28.6)	25(71.4)
	8(22.9)	27(77.1)
	25(71.4)	10(28.6)
	6(17.1)	29(82.9)
가	8(22.9)	27(77.1)
	6(17.1)	29(82.9)
	5(14.3)	30(85.7)
	3(8.6)	32(91.4)
	3(8.6)	32(91.4)
	7(20)	28(80)
	18(51.4)	17(48.6)
	5(14.3)	30(85.7)

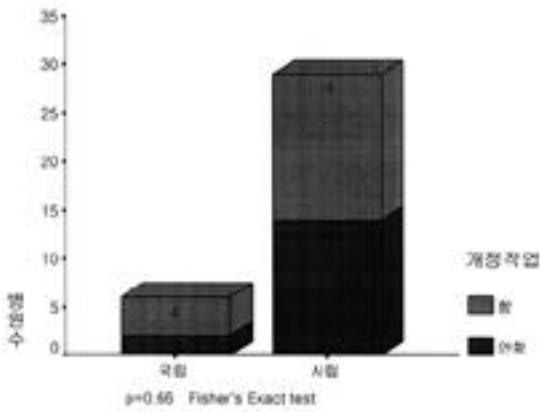


1.

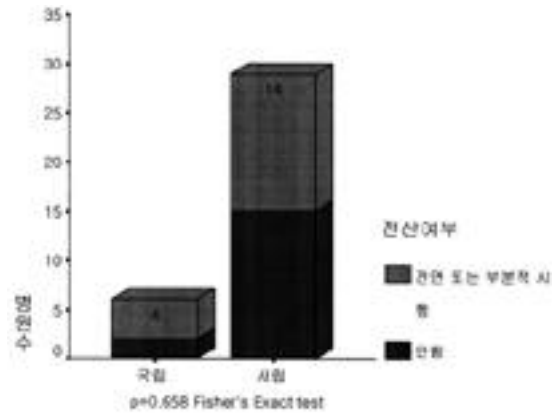
2.

가 가 32  
1 .25

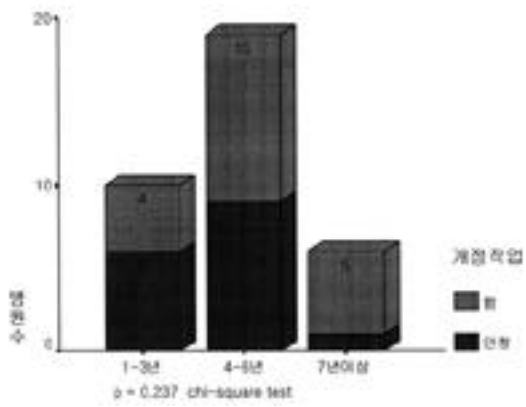
50%  
13 ,



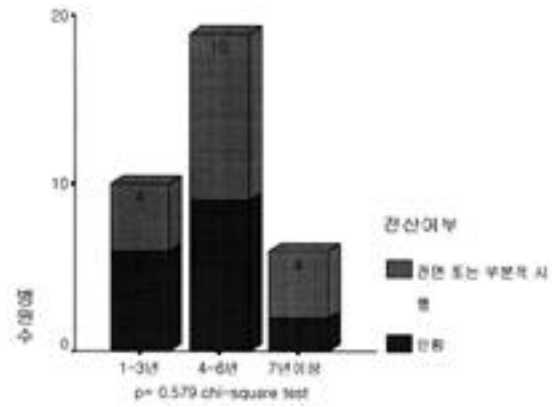
3.



4.



5.



6.

(Glasgow coma scale) , (Trauma scale)

4.

4 , 29 15 6  
( 3).  
6 4 , 29

3.

15  
( 4).

가 ( 1,2).

9.3 ,  
Whitney

7.52 Mann-  
(P= 0.345).

8.71 ,

7.24  
(P= 0.295).

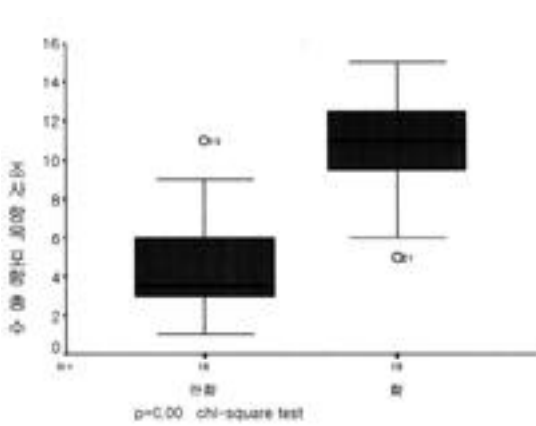
2.

가

, 가

가

:  $p < 0.05$



7.2 , 4~6 1~3 8.21

, 7 7.65

Kruskal-Wallis (P = 0.38).

6.

7.

가

2

10.58 ,

5.

4.56

( $p = 0.00$ )( 7).

1~3

10 4 , 4~6 19

10 , 7 6 5

( $P = 0.237$ )( 5).

7.

18

10 4 , 4~6 19 10 , 7 17

6 4 5.38 , 4.47

( 6).

가

3.

		(%)
	?	1(3.7)
		2(7.4)
		16(59.3)
		8(29.6)
가	?	23(85.1)
		4(14.9)
가	?	24(88.8)
		3(11.2)
	?(26)	9(34.6)
		15(57.7)
		2(7.7)
가	?(26)	5(19.2)
		14(53.8)
		1(3.8)
		1(3.8)
		1(3.8)
		4(15.4)

9 (34.6%)

8.

가가 ,

3 .

가 가

16 (59.3%)

가 가

23 (85.1%) 가

가 가 가

가

가

가

가

15 (57.7%)

가

가

가

가

가

24 (88.8%)

가

가

가 14

가 1

가

가

(30 ),

(DOA) (1 ),

(DNR) (3 ), ACEP(American College of Emergency Physicians) 15

(CPR) (9 ), (1

),

(1 )

IV. 1999

가 가

가

가 34%

2).

3.8

가

가

3-6).

가

가,

가

7).

가

가

,가

50~60%

가 1999

Georgia

Marietta Kennestone

Alberta Calgary

Courtesy Foothills

9,10)

51%

가

1

가

3

가

가

7

11)

가

가

가

60%

31%

가

( 2).

가

가

가

가

35

1

. ACEP(American College of Emergency Physicians) 1997

가

12)

(content)

4

(format)

(form)

가

8)



10% <sup>13)</sup> Kentucky <sup>14)</sup> 가  
 illinois 가  
<sup>11,15)</sup>

(Glasgow coma scale) (trauma score) ,  
 (problem-oriented medical record)  
 가 20 ~ 40% (problem-oriented medical record)  
 1968 Weed가 SOAP(subjective, objective, assessment, plan) <sup>16)</sup>  
 가

<sup>17,18)</sup> 가 (PROMIS-problem oriented medical information system)

가 <sup>19)</sup> 가 가  
 가 가 가  
 가  
 20% <sup>20)</sup> 가  
 가 가  
 가 가

가 65%

V.

가 35  
1, 2, 3

1) 1  
15 7.8±4.03

20가 1997

가  
21) 2) 50%  
13  
3) 35 4  
19

가  
가  
( , ) (

가  
가 가  
5)

가  
가  
10  
6) (89%가

가  
가  
가  
1) (89%가

2) 가  
, 3) 54% 가

58%

7) (33),  
 (DOA) (1),  
 (DNR) (3),  
 (CPR) (9),  
 (1),  
 (1) .  
 가  
 가  
 가  
 가  
 가  
 가  
 가  
 가

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