원 저

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1), 1), 2), 3), 4), 5), 6), 7), 8)

Evaluation of Current Coding Practices in 3 University Hospitals

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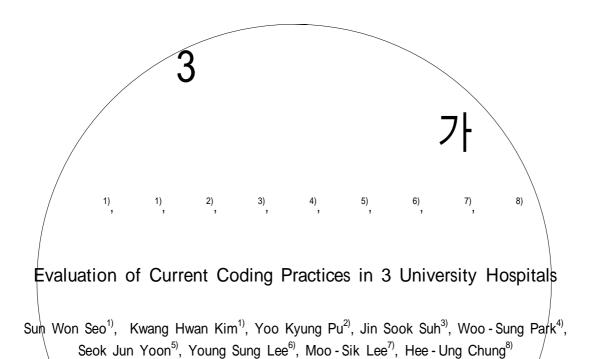
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Abstract

Background : Coding of principal diagnosis is essential component for producing reliable health statistics. We performed this study to evaluate the current practice of principal diagnoses determination and coding, and to give some basic data to improve coding of principal diagnosis.

Method : Nineteen medical record administrators (MRAs) of 3 university hospitals participated in coding principal Dx. from August 1, 2001 to August 31, 2001. From each hospital, 10 medical records of patients with high frequency disease were selected randomly. Each 10 medical records were grouped into three (A. B, C). Then, these 30 medical records were given to each MRAs for coding. At the same time questionnaire was given to each of them. Questions were to prove how they decide and code the principal diagnosis among many current diagnoses; how they decide and code the principal diagnosis when they see irrelevant diagnosis recorded as the principal diagnosis in medical record, when only tentative diagnoses were recorded without final diagnosis, and when different diagnoses were recorded in different sheets of same record. Agreement of coding among 3 hospitals were compared and survey results were analysed with SAS 6.12.

Results : Agreement of coding was found in medical records 5- 6 of each 10 medical records. Causes of disagreement were as follows. Difference of clinician's opinion from each hospital; mixed use of guideline from KCD- 3 and guideline from DRG; difference in 4th digit classification according to the absence of pathology report in the medical record; difference of abbreviations among hospitals. 57.9% of MRAs selected the principal diagnosis recorded by physician, 42.1% of MRAs decided principal diagnosis after consulting to KCD- 3 guideline. When there were difficulties in determining the principal diagnosis, 42.1% of MRAs decided principal diagnosis after discussion with the physician, 26.3% after discussion with fellow MRAs.

Conclusion : There were differences in codings among hospitals. To minimize the difference, we suggest the development of disease- specific guidelines for coding in addition to the current general guideline such as KCD- 3. To do this, Coding Clinic which can produce guidelines is needed.

Key Words : Principal diagnosis, coding, KCD- 3, classification

．　　　　　　　　　　　　　　　　　　　　　　　　　　DRG
(Principal Diagnosis)

,　　　　　　　　　　　　　Code
．

,　　　　　　　　　　　　　　　　(　, 1996).　　　　,

(　, 1995).　　　　　　　　　　　　　　　　．

,　　　,

(International Classi-　　　　　　　　　　　　,
fication of Diseases, ICD)　　　　　　　　　(　, 1995).

(WHO, 1992).

ICD- 10,
．　,　　　　　　　2　　　　　　　　　．

,　　,
．

,　　　　　　　　　　　　　　　　　　　　　　　．　, KCD
．　　　　　　　　　　　(Main Condition)

1938　　　　　　　　　　　　　　　　　　　　　　．

1995　7　　　　　　　　　　　　　．
1　　　　　　　10
(Korean Classification of Dise-
ases, KCD)　3　　　　　　　(　 ,　　　　．
1996).　　　　　　　　　　　　　　　　　　　　　　　,

．

(　　　　　　　, 1995).

(, 1995).   3.

3

.   .

SAS 6.12   .

.

1.   1.

1 ,   1   ,
1   3   19
2001   8   1   8   31   1   17 (89.5%),   2 (10.5%)
,   25- 29
.   30- 34   42.1%, 35   15.8%

19   A   6 (31.6%), C   4 (21.0%) B   12 (63.3%)
9 (47.4%)   (1).   ,   5 (26.3%),   2 (10.5%)
,   4   5 - 9
42.1%, 47.4%   , 10   10.5%
1.   (2).

		%
A	6	31.6
B	9	47.4
C	4	21.0
	19	100.0

2.   1)

A   B

, C   KCD- 3

10   .   30   (3).
19

.   ,   2)

.   KCD- 3

2.

: N(%)

	A	B	C	
	2(33.3)	-	-	2(10.5)
	4(66.7)	9(100.0)	4(100.0)	17(89.5)
25- 29	2(33.3)	5(55.6)	1(25.0)	8(42.1)
30- 34	3(50.0)	2(22.2)	3(75.0)	8(42.1)
35	1(16.7)	2(22.2)	-	3(15.8)
	2(33.3)	1(11.1)	2(50.0)	5(26.3)
	3(50.0)	8(88.9)	1(25.0)	12(63.2)
	1(16.7)	-	1(25.0)	2(10.5)

3.

: N(%)

	A	B	C	
KCD- 3	2(33.3)	3(33.3)	3(75.0)	8(42.1)
	4(66.7)	6(66.7)	1(25.0)	11(57.9)
	6(100.0)	9(100.0)	4(100.0)	19(100.0)

'   ' '

42.1%   ,   36.8%   ,'

26.3%,   '   31.6%

21.1%   ,   A   ,   A   C   '

C   , B   '

.   , B   '

,   '   .

,'

'   52.6%   '

,'   '   52.6%   ,'   '   15.8%

'   26.3%   ,   A   B   ,   A

'   '   '   '   , B   C

, C   '   '   '

'   .   (4).

4.

: N(%)

	A	B	C	
	-	4(44.4)	-	4(21.1)
	-	-	1(5.3)	1(5.3)
	4(66.7)	3(33.3)	1(25.0)	8(42.1)
	2(33.3)	1(11.1)	2(50.0)	5(26.3)
	-	1(11.1)	-	1(5.3)
,				
	-	1(11.1)	1(25.0)	2(10.5)
	3(50.0)	-	2(50.0)	5(26.3)
,	-	2(22.2)	-	2(10.5)
	3(50.0)	6(66.7)	1(25.0)	10(52.6)
	-	7(77.8)	-	7(36.8)
	4(66.7)	-	2(50.0)	6(31.6)
	1(16.7)	1(11.1)	1(25.0)	3(15.8)
	1(16.7)	1(11.1)	1(25.0)	3(15.8)
	-	4(44.4)	2(50.0)	6(31.6)
	6(100.0)	2(22.2)	2(50.0)	10(52.6)
	-	3(33.3)	-	3(15.8)

3.   .

                                                         KCD- 3
                                      (, 1995)   36.8%
       KCD- 3   ,   31.6%,
                                                      26.3%   ,
                         57.9%   A   C   .
                    36.8%,   B
5.3%   A   (5).
   , B   , C

5.   KCD-3

: N(%)

	A	B	C	
	-	4(44.4)	3(75.0)	7(36.8)
	-	1(11.1)	-	1(5.3)
	6(100.0)	4(44.4)	1(25.0)	11(57.9)
KCD-3				
	3(50.0)	1(11.1)	3(75.0)	7(36.8)
	2(33.3)	3(33.3)	1(25.0)	6(31.6)
	1(16.7)	4(44.4)	-	5(26.3)
	-	1(11.1)	-	1(5.3)

4.

(I61.0),   (D25.1)

1) A

(J93.1)   .

A   3   A   10   9

10   5   1

, 5   , B   C   6 , 7

.   (6).

6. A

: N(%)

	A (N=6)	B (N=9)	C (N= 4)	(N=19)
	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(K40.9)				
(D25.1)	6(100.0)	1(11.1)	3(75.0)	10(66.6)
(J93.1)	6(100.0)	8(88.8)	3(75.0)	17(89.4)
(C16.3)	5(80.0)	9(100.0)	4(100.0)	18(94.7)
(I61.0)	5(83.3)	1(11.1)	3(75.0)	9(47.3)
(K80.1)	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(C53.9)	6(100.0)	7(77.7)	4(100.0)	17(89.4)
(J15.7)	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(S02.40)	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(S72.00)	6(100.0)	9(100.0)	4(100.0)	19(100.0)

2) B   (H71)   (J32.4)

B   3   .

                10   6   A   10   6

                , 4   , 4

          .   , B   8

        (I12.0)   2   .

(O82.1)   .   C   10

A   10   7   (8).

        , 3   .

B   8   2   5.

                                , C   9

                , 1

              (7).   , KCD- 3   DRG   ,

                                                                                        ,

  3) C   ,

C   3

                10   7   (9).

                3

        .

7. B

                                                                                    : N(%)

	A (N=6)	B (N=9)	C (N=4)	(N=19)
(J44.8)	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(K74.6)	5(83.3)	9(100.0)	4(100.0)	14(73.6)
(I20.0)	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(O82.1)	5(83.3)	-	4(100.0)	9(60.0)
(C83.3)	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(D25.9)	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(I12.0)	6(100.0)	1(11.1)	1(25.0)	8(42.1)
(E05.0)	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(P07.3)	5(83.3)	9(100.0)	4(100.0)	18(94.7)
(K25.4)	6(100.0)	9(100.0)	4(100.0)	19(100.0)

8. C

: N(%)

	A (N=6)	B (N=9)	C (N=4)	(N=19)
(J32.4)	4(66.7)	9(100.0)	4(100.0)	17(89.4)
(G00.9)	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(H33.0)	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(C83.3)	6(100.0)	8(88.8)	4(100.0)	19(100.0)
(B02.9)	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(Z52.4)	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(H50.0)	6(100.0)	9(100.0)	4(100.0)	19(100.0)
(M32.1+)	5(83.3)	9(100.0)	4(100.0)	18(94.7)
(H71)	5(83.3)	8(88.8)	4(100.0)	17(89.4)
- (N10)	5(83.3)	9(100.0)	4(100.0)	10(100.0)

8.   (   )

		A	B	C
(J93.1)		-	J93.8	J93.8
(I12.0)		-	E14.2, N18.9	E14.2
KCD-3 DRG				
(O82.1)		O14.1	O14.1, O13	-
( )				
(D25.1)		-	D25.9	-
(I61.0)		I61.8	I61.8, I61.5, I61.3, I61.3	I16.8
(J32.4)		J32.8	-	-
(C53.9)		-	D06.9	-
(H71)		H66.9	H66.9, H74	-

.

.

,

,

.   52.6%

, DRG   .

.

(1995,   1997,   .

1996)

,   ,   (   )

35.1%, 1

64.9%   (.

, 1999).

,   36.8%

.   ,

31.6%   ,

,

(, 1996).   DRG   .

(Util- zation Review)   (, 1998).

(, 1999).   ,

52.6%   .

42.1%   ,   .

26.3%   .

KCD

57.9%

(, 1994)   .

.   (J93.1)   86.4%

                                        (J93.1)   (J93.8)
                                    .   .
                                    B

                                                                                (I12.0)
                                29.6%   .

                                (

        , 1999).
                    A   B,C
            (I61.0)   27.3%
        .   (D25.1)   .
    31.8%

                        ,
                                                                        .
            (D25.9)   (O82.1)   33.3%
        .   KCD- 3   DRG
            ,   . KCD- 3
                                    (O80- O84)
        .   ,
                    .   DRG   (O80- O84)
            KCD- 3   .
                ,   DRG
    ,   ,   ,   KCD- 3
                    ,   .
                                            C
                                        (H71)   88.9%
                                                        (H66.9)
            .   ,
                        (C53.9)   (J32.4)
    81.8%
        (D06.9)   ,

                                        chronic pansinusitis(J32.4)   chronic paran-
                                    asal sinusitis(J32.8)   CPS

        .

. 26.3%, 21.1%

.

2. ,

57.9%

. ICD KCD-3

42.1% .

3. A

10 5

. , 5

. .

(I61.0), (D25.1)

KCD-3 (C16.31)

.

. KCD-3 , DRG 4. B

10 5

, 5 .

. (I12.0),

(O82.1)

. (C83.3) .

5. C

10 6

. , 4 .

(H71), (J32.4)

(C83.3) .

6.

, KCD-3 DRG ,

2001 8 1 8 31 1 3 , ,

. .

1.

42.1% . KCD-3,

, DRG ,

63

,

5.   .

            .   ,

1997

6.   .   .

                                        , 1999

7.   .   30

            .   1996;2(2):337- 338

                                              .

8.   .

                                                  .   ,

1.   ,   ,   ,   ,   .   4(16);121- 136

            DRG   .   1999:

10- 20

9.   .

                                              .

2.   ,   ,   ,   ,   ,   .   , 1995

            .   1996:

10.   .   . 1995

4- 5

11.   ,   ,   ,   .

3.   .   .   ;   (ICD)   .

1999:179- 180

1995;(1):49- 57

4.   ,   ,   ,   ,   ,   ,

12.   . 3

            ,   .

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            .   1998;(2):37- 50

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