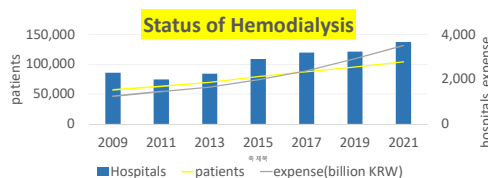


INTRODUCTION

- As the population ages, the number of patients receiving hemodialysis(HD) treatment and medical expenses are continuously increasing
- Patients receiving hemodialysis have a high mortality rate due to stroke, cardiovascular diseases, infection, etc.
- As a result, the need for quality control of hemodialysis emerged, and the Health Insurance Review and Assessment Service (HIRA) completed the seven assessment from 2009 to 2022



AIM

- To continuously assess the quality of medical treatment in health care institutions that provide hemodialysis treatment
- To provide assessment results to induce voluntary quality improvement in health care institutions
- To prevent complications and to promote the health of the people receiving hemodialysis treatment
- To provide incentives to excellent quality health care providers according to the evaluation results, and disincentives to poor quality health care providers
- Rational distribution of medical resources and use of assessment results as baseline data for national policies



METHOD

- Assessment period:** 2 years
- Data:** Patient's medical data claimed by the health care institutions, the health care institutions' data reported to the government, and data collected from the survey table
- Indicators:** 13 indicators
 - Structure indicators(7), Process indicators(3), Result indicators(3)
- Application of assessment results:** Notification to health care institutions, open to the citizens, and use in national policies
- Incentive/disincentive:** 2% of the medical fee is subject to addition or subtraction to improve the quality of medical care depending on the assessment results
 - 2% incentive: first grade and top 10%,
 - 2% disincentive: overall score of less than 69

RESULTS

The 7th hemodialysis assessment result

- Target period:** 6 months from Oct. 2020 to Mar. 2021
- Number of health care institutions:** 954 (including tertiary hospitals, general hospitals, hospitals, and clinics)
- Number of patients:** 38,710 outpatients and inpatients
- Overall score:** The overall average was 84.5 points, an increase of 0.4 points compared to the 6th (84.1 points)
- Assessment grade:**

Grade	Total	1	2	3	4	5	Exception*
Number of institutions(%)	954(100.0%)	144(15.1%)	364(38.2%)	220(23.1%)	108(11.3%)	58(6.1%)	60(6.3%)

* Institutions with less than five denominators for both process and outcome indicators

- Incentive:** 101 institutions (10.6%), 1.1 billion KRW
- Disincentive:** 89 institutions (9.3%), 678 million KRW

Hemodialysis assessment quality Indicators & results

Sector	Quality Indicators	Formular for Calculation	Results		
			6th	7th	Comparison with 6th
Structure	Percentage of doctors specializing in HD	A sum of working days for each doctor specializing in HD A sum of working days for each doctor in the HD facility	75.0	73.8	1.2↓
	Average number of HD cases per doctor per day	Total number of HD cases A sum of working days for each doctor in the HD facility	25.9	26.0	0.1↑
	Percentage of nurses with more than two years of HD experience	A sum of working days for each nurse for more than two years of experience in HD A sum of working days for each nurse in the HD facility	73.7	74.7	1.0↑
	Average number of HD cases per nurse per day	Total number of HD cases A sum of working days for each nurse in the HD facility	5.4	5.3	0.1↓
	Satisfaction with the minimum number of isolated HD machines for hepatitis B patients	Number of hepatitis B patients {(3X Days of HD 3 times a day)+(2X Days of HD 2 times a day)}/3	99.5	100.0	0.5↑
	Possession of emergency equipment in HD facility	Oxygen equipment, defibrillator, endotracheal intubation, aspirator, electrocardiogram	93.2	95.1	1.9↑
	Satisfaction with water quality testing cycle	Microorganisms (monthly), endotoxins (quarterly) Chemical contaminants and heavy metals (yearly)	90.4	91.0	0.6↑
	Satisfaction rate of HD adequacy cycle	Number of patients meeting HD adequacy cycle Number of outpatients	99.7	99.8	0.1↑
Process	Satisfaction rate of arteriovenous(AV) fistula stenosis monitoring	Number of patients regularly monitored for AV-fistula Number of outpatients	97.0	98.5	1.5↑
	Satisfaction rate of periodic test cycle (Blood test, urine test, etc.)	Number of patients meeting the periodic test cycle Number of outpatients	99.0	98.9	0.1↓
	Satisfaction rate of HD adequacy	Number of patients with average spKt/V ≥ 1.2 or average URR ≥ 65% Number of patients tested HD adequacy	95.6	94.9	0.7↓
Result	Satisfaction rate of Ca X P	Number of patients with average (Ca X P) < 55 mg ² /dl ² Number of patients performed the test at least once during the period	82.7	84.0	1.3↑
	Percentage of patients with Hemoglobin(Hb) less than 10 g/dl	Number of patients with average Hb < 10g/dl Number of patients receiving hematopoietic drugs	12.9	10.5	2.4↓

Improved / deteriorated

CONCLUSIONS

- The result of most indicators such as nurse quality, facility, and equipment, and some process and result indicators were improved compared to the previous assessment
- Indicators that have achieved their goals* are terminated, and related to infection and patient safety**are maintained as monitoring indicators
 - * Satisfaction rate of HD adequacy cycle, Satisfaction rate of AV fistula stenosis monitoring
 - **Number of HD machines for Hepatitis B patients, Emergency equipment
- HIRA provided feedback on the result to the health care institutions and published the result to the citizens

FUTURE DIRECTIONS

- Long-term-care hospitals that not been assessed before are going to be included in the next HD assessment
- HIRA should develop more result indicators to reflect health care quality and outcome
- Assessment performers should suggest optimal treatment and management through continuous study of HD

REFERENCES

- HIRA, South Korea. 2021 the 7th hemodialysis assessment report, 2023.
- Korean Society of Nephrology. Evidence-based practice guideline for optimal hemodialysis treatment, 2021.