# **Exploring the Rate and Causes of the Deduction by Health Insurance and Social Security Insurance in an Educational Hospital in Rasht**

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## **Abstract**

**Introduction:** Today, hospitals are faced with severe constraints on financial resources and a large amount of hospital fees are not reimbursed annually by health insurances leading to irreparable financial damages to hospitals. So knowledge of the reasons responsible for such conditions is essential. The purpose of this study was to determine the rate and causes of deductions for social insurance and health insurance applications in a rasht educational hospital.

**Objective:** Exploring the rate and causes of the deduction by health insurance and social security insurance in an educational hospital in rasht.

**Materials and Methods:** This study was a cross section one conducted on one of the educational hospitals affiliated with Guilan University of Medical Sciences. Social insurance deductions reported for 2017 were organized by referring to the unit of income with differentiating the type of fraction by determining the minimum and maximum deductions and its relationship with different months of the year as comparative tables The resulting data were analyzed through descriptive statistical methods, using the SPSS software, version 16.

**Results:** The most deductible applied to social insurance policies with a total of 19,030,679,568 Rials were related to counseling, visit and surgeon, with a total of 38,597,297,828 Rials being related to counseling, visit and pathology in health insurance.

**Conclusion:** The highest deductions were due to the lack of documentation by personel due to lake of knowledge. Therefore, in order to reduce deductions, the use of a multilateral mechanism, including the formulation of policies on the use of clinical guidelines, the training of doctors and contracting with the doctors who have the most cooperation in this field are recommended. At the same time, continuous explanation and implementation of these activities in the hospital organizing a committee is necessary.

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#### **Extended Abstract**

**Introduction:** Hospitals, as the largest providers of health care, use a large amount of resources and credits allocated to health care (1,2). In recent years, the cost in hospitals has increased dramatically, and on the other hand, large amounts of the such costs are paid by health insurance to hospitals and they may be prone to deductions from insurance organizations (1,3). Therefore, identifying the factors causing deductions is one of the most important issues that has attracted the attention of hospital managers (4).

**Objective:** Given the importance of financial situation of hospitals, the purpose of this study was to determine the rate and causes of deductions of social security insurance and health insurance in a teaching hospital in Guilan.

Materials and Methods: In this cross-sectional study, one of the educational hospitals affiliated to Guilan University of Medical Sciences, was selected for research. Social security and national health insurance deductions' report for 2017 were gathered from the

income unit of the hospital per month. The study population consisted of all hospitalized cases covered by Iran Social Security and Health Insurance. The data were collected by a checklist validated by insurance experts and a number of management professors. Amounts of deductions broken down into services (visit, consultation, operating room, laboratory, radiology, paraclinical departments, departmental medicine. operating room and residence, and others). Then, the causes of maximum deductions were determined by analyzing the findings of the research and direct interviews with the authorities of each unit. Descriptive statistics indices were used for data analysis in SPSS 16 software.

**Results:** In assessing deductions for inpatient records, based on the types of services provided and the type of insurance, amount and percentage of deductions associated with each service are listed in Table 1.

Table 1: The amounts of 10 month deductions of Iranian Health Insurance and Social Security in Rasht teaching hospital

Amount of deductions in	Social Security Insurance	Amount of deductions in	Health Insurance deductions
Rials (%)	deductions	Rials (%)	Type of service
	Type of service		
2.405.821.200(53.33)	visit	5.135.709.800(50.9)	visit
6.060.943.700(66.67)	consultation	7.739.093.870(69.09)	consultation
2.862.717.997(34.25)	Surgeon	5.709.984.170(19.77)	Surgeon
155.472.876(23.43)	Assistant	338.708.921(40.12)	Assistant
1.655.983.076(25.68)	Anesthesia	2.501.776.280(23.97)	Anesthesia
364.713.738(15.99)	Sector Supplies	716.628.716(35.37)	Sector Supplies
660.424.757(15.93)	surgery room	1.221.131.636(17.21)	surgery room
183.158.069(7.67)	Radiology	543.700.878(16.94)	Radiology
341.647.435(6.54)	Lab	1.520.847.270(19.34)	Lab
44788.382(23.9)	Pathology	504.299.273(45.16)	Pathology
311.113.852(2.37)	Ward medicine	1.738.780.858(15.98)	Ward medicine
9742180(1/14)	M.R.I	367.422.178(24.05)	M.R.I
260805520(28/92)	Rehabilitation	742.347.474(49.25)	Rehabilitation
1313582600(7/3)	Stay patient	4.210.144.800(9.03)	Stay patient
77.696.880(9.76)	electro	152.027.980(14.32)	electro
49.171.600(4.76)	echo	79.350.240(4.81)	echo
5.572.840(1.85)	Nerve Bar	26.558.280(4.81)	Nerve Bar
91.396.028(2.76)	CT	926.361.433(22.78)	CT
1.164.170.600(21.6)	Services Non-surgeon	2.421.086.214(34.50)	Services Non-surgeon
126.837.515(11.79)	Operating room medicine	236.592.911(11.51)	Operating room medicine
345.878.888(12.23)	Operating Room Supplies	418.758.723(8.98)	Operating Room Supplies
135.008.976(7.65)	sonography	523.191.554(22.47)	sonography
328.430.915(2.48)	Prosthesis	507.132.505(3.42)	Prosthesis
75.599.944(4.62)	Hotelling	196.010.847(7.32)	Hotelling
19.030.679.568 Rial	sum	38.597.297.828 Rial	sum

According to Table 1, the highest amount of deductions by type of service in Iranian health insurance was related to physician consultation coming to 7739093870 Rials (69.09%), visitation 5135709800 Rials (50.90%) and the lowest amount and percentage of deductions related to prosthesis 507132505 Rials (3.42%), Echo 79350240 Rials (4.81%), Nerve

26558280 (4.81%). The highest total deductions by type of social security insurance were related respectively to physician consultation 6,060,943,700 Rials (66.67%), visits 2,405,821,200 Rials (53.33%), and the lowest amount and percentage related to MRI 9,742,180 Rials (14). 1%), nerve 5,572,840 Rls (1.85%), section drug 311,113,852 Rls (2.37%),

Prosthesis 328,430,915 Rls (2.48%). The total amount of deductions during the study period by type of service in Iranian health insurance was 38,597,297,828 Rials, which is the maximum type of deduction from Iranian health insurance from Farvardin to Shahrivar 1396, consultation, in Mehr visits, and in Aban, Azar, Dey, is Patholog. The total amount of deductions during the period determined by type of social security insurance service was 19,030,679,568 Rials, which was the maximum type of deductible for social security insurance in the consulting with the maximum amount from Farvardin to Aban and the maximum type of deduction is related to the visit of physician from Azar to Dey.

The specific income was 316436524031 Rials, which was deducted by 57627977004 Rials from the total income of the hospital. Most of the Iranian health insurance deductions were for Khordad and the least for Shahrivar. The highest amount of social security deductions were for Khordad and the lowest for Azar. Factors causing hospitalization deductions by type of service due to first and second year residents visits, incorrect registration of physician k-coefficient in HIS system, lack of specialist requesting and responding

physician, file confusion and pen corrosion, non-tariff counseling such as emergency medicine counseling, not having a date, a seal and a signature, writing the phrase "no bed" is a phrase that fractures files for counseling, failure to comply with the code of surgery performed by the surgeon and failure to mention the date and time of surgery by the surgeon.

Conclusion: According to the present survey, it can be concluded that the way medical files are completed and documented has a great impact on the reimbursement of hospital costs for the treatment and care of patients by insurance agencies. As well, a large portion of deductions related to the lack of sufficient documentary skills, medical staff errors documentation, lack of confirmation of documented information by the practitioner (signature and date), and failure by insurer to comply with regulations and enforcement guidelines. It is suggested that data collection and information be performed at specified intervals to determine and monitor guidelines for reducing deductions in hospitals covered by Guilan University of Medical Sciences, and in the active committee of hospitals and be examined at the academic level.

## References

- 1. Kiaei, M. Investigate insurance deductions . (2018).
- 2. TabriziJ, Alidoust S, MashhadiAbdollahi H, FarshiKhorsand M. Identification of bottlenecks and incidence of deductions for specific health care centers in East Azarbaijan province. Health Information Management; 13 (2): 126-31.
- 3. Safdari R, QaziSaeedi M, Sheikh al-Tayyafeh M, Jabraeli M, SeyedFarajollah S, Morsrat E, LakiTabrizi R. Study of the causes of insurance deductions from the viewpoint of insurance experts in educational hospitals of Mashhad University of Medical Sciences. Health magazine. 2017 May 15; 11 (1): 10-9.
- 4. Hall MA, Hager CL, Orentlicher D. Using payroll deduction to shelter individual health insurance from income tax. Health services research. 2011 Feb 1;46(1p2):348-64.