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Charakterystyka pacjentów usprawnianych w zakresie rehabilitacji neurologicznej

The characteristics of patients undergoing neurological rehabilitation

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Streszczenie:
Celem pracy jest próba dokonania analizy profilu pacjenta kierowanego do leczenia w zakresie rehabilitacji neurologicznej.
Materiał badawczy stanowiły dane sprawozdane przez dziewięć oddziałów rehabilitacji neurologicznej posiadających zawarte umowy z Łódzkim Oddziałem Wojewódzkim Narodowego Funduszu Zdrowia.
Analiza materiału badawczego dokonanego pod względem wieku pacjentów usprawnianych w oddziale rehabilitacji neurologicznej wykazała, iż najczęściej usprawniano pacjentów w wieku 56-75 lat i stanowili oni 59,74% ogółu.
W toku badania stwierdzono, iż najczęściej sprawozdawane były rozpoznania „kurczowe porażenie połowicze" (40,58% ogółu) oraz „porażenie połowicze, nie określone" (21,19% ogółu).

Słowa kluczowe:
rehabilitacja neurologiczna, rozpoznania główne

Abstract
The present paper is an attempt to characterize the profile of a patient referred for neurological rehabilitation.
The research material included data collected from nine units of intramural neurological rehabilitation which had signed contracts with the Lodz Voivodeship Department of the National Health Fund.
The analysis of research material with respect to the age of patients undergoing neurological rehabilitation has shown that the most commonly rehabilitated patients were those aged between 56-75 which constitutes 59.74% of all patients.
The research has shown that the most commonly reported diagnosis was "spastic hemiplegia" (40.58% of all patients) and "hemiplegia, unspecified" (21.19% of all patients).

Key words:
neurological rehabilitation, main diagnoses

The services of intramural neurological rehabilitation are intended for patients with neurological disorders in all age groups, whose continued treatment requires complex rehabilitation services as well as 24-hour nursing and doctor's supervision. Neurological rehabilitation is performed on the basis of specified groups of the services defined in the Catalogue of Diagnosis Related Groups (DRGs) in intramural therapeutic rehabilitation. In order to qualify a patient into particular group, the seriousness of the patient's clinical condition must be proved as part of an individual medical documentation, based on the criteria defined in Appendix

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No. 5 to the Ordinance of the President of the National Health Fund No. 80/2013/DSOZ of 16 December 2013 on defining the conditions for the conclusion and execution of the contracts concerning therapeutic rehabilitation. The assessment of the seriousness of the clinical condition of patients referred for neurological rehabilitation, rules of admission to hospital and the duration of rehabilitation for specific age groups are defined in the aforementioned appendix (1.2).

Currently there are no publications available concerning the analysis and characteristics of patients undergoing physiotherapy at the neurological rehabilitation unit. The present paper is an attempt to characterize the profile of a patient referred for neurological rehabilitation.

The research material included data collected from nine units of intramural neurological rehabilitation which had signed contracts with the Lodz Voivodeship Department of the National Health Fund. All the services had been performed in 2013. The data was provided by the Lodz Voivodeship Department of the National Health Fund. Microsoft Office Excel 2007 Spreadsheet was used for the data analysis. The data reported by the care providers were classified into 8 age groups: patients ≤25 years of age, 26 to 35 years of age, 36-45 years of age, 46-55 years of age, 56-65 years of age, 66-75 years of age, 76-85 years of age and patients over 85 years of age. The research material analysis allowed for the patients' sex, age and the main diagnoses within each age group.

The analysis of research material has shown that in 2013 1279 patients had been subjected to neurological rehabilitation in the territory of Lodz voivodeship under the contracts concluded with the Lodz Voivodeship Department of the National Health Fund. In the analysed research material 44% of the patients were women, 56% were men (Fig. 1).
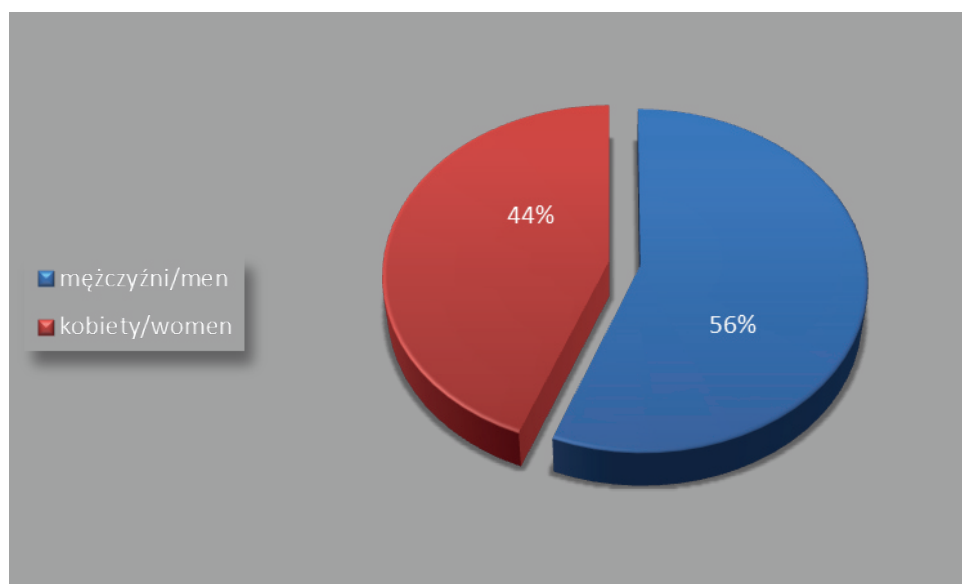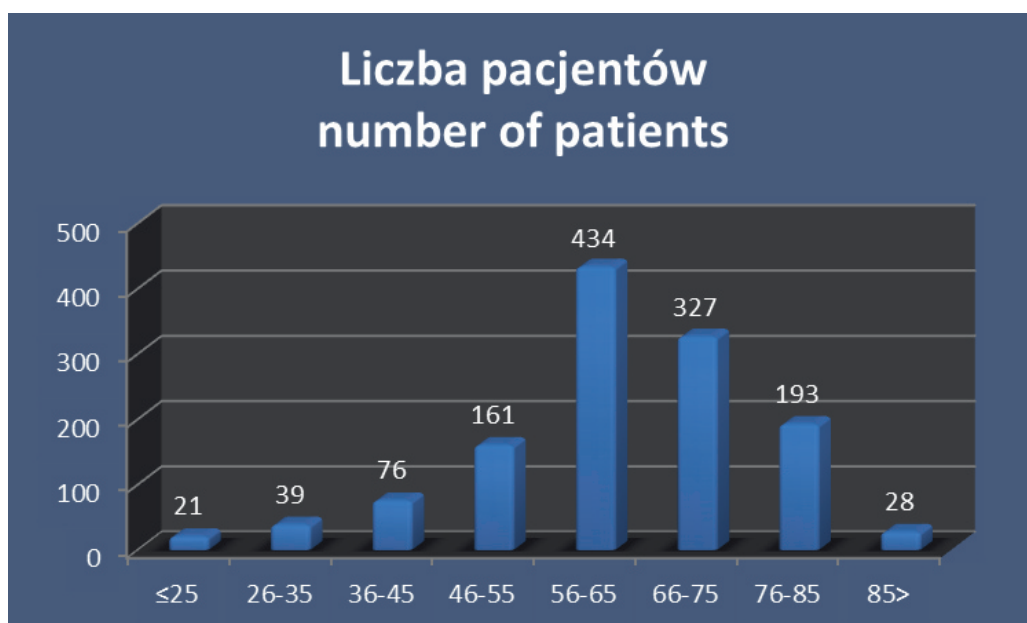

Fig.1. Classification of the patients based on their sex

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The data analysis has shown that the most significant number of patients undergoing neurological rehabilitation were those aged between 56 and 65 (34.09% of all studied patients) and between 66 and 75 (25.65%). Patients in the age group ≤ 25 represented 1.64% of all patients studied. It has been proven that 2.19% of all studied patients were those over 85 years of age, 3.05% between 26-35 years of age and 5.94% between 36-45 years of age. Similar results came from the age group 76-85 and 46-55 years (respectively 15.09% and 12.35% of all hospitalized patients) (Fig. 2).

We evaluated the most commonly reported diagnoses which was the reason for referring for neurological rehabilitation. In the course of the analysis of research material, due to the very extensive catalogue of main diagnoses, their number in each age group was narrowed to 10 most commonly-reported. The evaluation was performed with respect to particular age groups.

Fig. 2. Number of the researched patients

In the age group ≤ 25 the most commonly reported diagnosis was "spastic hemiplegia" (28.57%) and "spastic quadriplegia" (14.29%). It has been proven that "spastic paraplegia", "paralysis of one upper limb" and "flaccid paralysis of the lower limbs" occurred in the same number out of the total number of diagnoses (9.52%). It has been found that the diagnoses: "the consequences of cerebral infarction", "neoplasm of unspecified nature (spinal cord)", "paraplegia, unspecified", "flaccid quadriplegia" and "Guillain-Barre

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syndrome" reached 4.76% of all patients within this age group (Table 1).

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Table 1. The most common main diagnoses in the age group ≤25

Main diagnosis	% of the whole group
Spastic hemiplegia	28.57%
Spastic quadriplegia	14.29%
Spastic paraplegia	9.52%
Paralysis of one upper limb	9.52%
Flaccid paralysis of the lower limbs	9.52%
Consequences of cerebral infarction	4.76%
Neoplasm of unspecified nature (spinal cord)	4.76%
Paraplegia, unspecified	4.76%
Flaccid quadriplegia	4.76%
Guillain-Barre syndrome	4.76%

In the age group 26-35 the most commonly reported diagnosis was "spastic quadriplegia", "spastic hemiplegia", "hemiplegia, unspecified", each with a result of 12.82% of all patients within the group. It has been proven that "flaccid paralysis of the lower limbs" and "postlaminectomy syndrome, not classified elsewhere" occurred in 7.69% of patients within this age group. It has been concluded that the diagnoses "quadriplegia, unspecified", "paralysis of one lower limb",

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"flaccid hemiplegia" and "vertebral fracture of the lumbar spine" occurred in 5.13% of patients, and "cerebral hemorrhage of multiple placement" was observed in 2.56% of the studied group (Table 2).

Table 2. The most common main diagnoses in the age group 26-35.

Main diagnosis	% of the whole group
Spastic quadriplegia	12.82%
Spastic hemiplegia	12.82%
Hemiplegia, unspecified	12.82%
Flaccid paralysis of the lower limbs	7.69%
Postlaminectomy syndrome, not classified elsewhere	7.69%
Quadriplegia, unspecified	5.13%
Paralysis of one lower limb	5.13%
Flaccid hemiplegia	5.13%
Vertebral fracture of the lumbar spine	5.13%
Cerebral hemorrhage of multiple placement	2.56%

The analysis of the main diagnoses has shown that the most common diagnoses within the age group 36-45 was "spastic hemiplegia" (19.74%) and "hemiplegia, unspecified" (17.11%). The analysis of research material has shown that

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"flaccid hemiplegia" occurred in 7.89% and "spastic quadriplegia" in 6.58% of patients within the studied age group. It has been found that the reported diagnoses: "paraplegia, unspecified" and "flaccid paralysis of the lower limbs" occurred in 3.95% of patients. It has been proven that the main diagnoses such as: "spastic paraplegia", "consequences of cerebral infarction", "quadriplegia, unspecified", "paralysis of one lower limb" occurred among these patients in similar proportion (2.63%) (Table 3).

The analysis of the frequency of main diagnoses within the

Table 3. The most common main diagnoses in the age group 36-45

Main diagnosis	% of the whole group
Spastic hemiplegia	19.74%
Hemiplegia, unspecified	17.11%
Flaccid hemiplegia	7.89%
Spastic quadriplegia	6.58%
Paraplegia, unspecified	3.95%
Flaccid paralysis of the lower limbs	3.95%
Spastic paraplegia	2.63%
Consequences of cerebral infarction	2.63%
Quadriplegia, unspecified	2.63%
Paralysis of one lower limb	2.63%

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age group 46-55 has shown the occurrence of "spastic hemiplegia" (37.97%), "hemiplegia, unspecified" (18.35%), "spastic paraplegia" (5.70%), "spastic quadriplegia" (5.06%). It has been concluded that "quadriplegia, unspecified" and "flaccid hemiplegia" occurred in 4.43% of patients within the age group, "paraplegia, unspecified" in 2.53% of patients, "other specified paralytic syndromes" and "flaccid paralysis of the lower limbs" in 1.90% of patients, and "consequences of intracranial injury" in 1.27% of patients (Table 4).

Table 4. The most common main diagnoses in the age group 46-55

Main diagnosis	% of the whole group
Spastic hemiplegia	37.97%
Hemiplegia, unspecified	18.35%
Spastic paraplegia	5.70%
Spastic quadriplegia	5.06%
Quadriplegia, unspecified	4.43%
Flaccid hemiplegia	4.43%
Paraplegia, unspecified	2.53%
Other specified paralytic syndromes	1.90%
Flaccid paralysis of the lower limbs	1.90%
Consequences of intracranial injury	1.27%

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The analysis of diagnoses within the age group 56-65 has shown that within this age group patients were most often hospitalized as a result of "spastic hemiplegia" (43.35%) and "hemiplegia, unspecified" (20.18%). "Flaccid hemiplegia" was reported in 7.34% of all patients within this age group, whereas "spastic quadriplegia" in 4.82% of patients. It has been proven that "quadriplegia, unspecified" and "consequences of cerebral infarction" constituted respectively 3.21% and 2.29% of all patients within the studied age group. It has been found that "cerebral infarction, unspecified" was reported in 1.83% of patients, "flaccid paraplegia" in 1.61% of patients, whereas "spastic paraplegia" and "paralysis of one lower limb" in 1.38% of patients within the age group 56-65 (Table 5).

Table 5. The most common main diagnoses in the age group 56-65

Main diagnosis	% of the whole group
Spastic hemiplegia	43.35%
Hemiplegia, unspecified	20.18%
Flaccid hemiplegia	7.34%
Spastic quadriplegia	4.82%
Quadriplegia, unspecified	3.21%
Consequences of cerebral infarction	2.29%
Cerebral infraction, unspecified	1.83%
Flaccid paralysis of the lower limbs	1.61%
Spastic paraplegia	1.38%
Paralysis of one lower limb	1.38%

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The analysis of diagnoses within the age group 66-75 has shown that 47.56% of patients of this age group was hospitalized at the neurological rehabilitation unit as a result of "spastic hemiplegia" and 23.48% of patients as a result of "hemiplegia, unspecified". It has been proven that "cerebral infraction, unspecified" occurred in 4.57% of patients, "flaccid hemiplegia" in 3.96%, "flaccid paraplegia" in 1.83%, "spastic quadriplegia" and "paralysis of one lower limb" as well as "paraplegia, unspecified" in 1.52%, "spastic paraplegia" in 1.22%, whereas "other cerebral infractions" in 0.91% of patients within this age group (Table 6).

Table 6. The most common main diagnoses in the age group 66-75

Main diagnosis	% of the whole group
Spastic hemiplegia	47.56%
Hemiplegia, unspecified	23.48%
Cerebral infraction, unspecified	4.57%
Flaccid hemiplegia	3.96%
Flaccid paralysis of the lower limbs	1.83%
Spastic quadriplegia	1.52%
Paralysis of one lower limb	1.52%
Paraplegia, unspecified	1.52%
Spastic paraplegia	1.22%
Other cerebral infractions	0.91%

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Patients within the age group 76-85 were hospitalized as a result of "spastic hemiplegia" (43.01%) and "hemiplegia, unspecified" (30.57% of patients). It has been found that "cerebral infraction, unspecified" occurred in 6.22% of patients, "flaccid hemiplegia" in 4.66% of patients, "other cerebral infractions" and "paraplegia, unspecified" in 2.59% of patients, whereas "cerebral infarction caused by cerebral arterial thrombosis" in 1.55% of patients within the age group 76-85. It has been concluded that "insulin-dependent diabetes (without complications)", "other specified chronic obstructive pulmonary disease" and "other specified central nervous system disorders" occurred in a similar number of patients (0.52%) (Table 7).

Table 7. The most common main diagnoses in the age group 76-85

Main diagnosis	% of the whole group
Spastic hemiplegia	43.01%
Hemiplegia, unspecified	30.57%
Cerebral infraction, unspecified	6.22%
Flaccid hemiplegia	4.66%
Other cerebral infractions	2.59%
Paraplegia, unspecified	2.59%
Cerebral infarction caused by cerebral arterial thrombosis	1.55%
Insulin-dependent diabetes	0.52%
Other specified chronic obstructive pulmonary disease	0.52%
Other specified central nervous system disorders	0.52%

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Within the age group over 85 years six main diagnoses were reported. The most frequent diagnosis within this age group was "hemiplegia, unspecified" (39.29%), "flaccid hemiplegia" (21.43%) and "spastic hemiplegia" (17.86% of patients). "Cerebral infraction" was found in 10.71% of patients, "unspecified pneumonia" in 7.14% of patients and "quadriplegia, unspecified" in 3.57% (Table 8).

The assessment of the research material has shown that the

Table 8. The most common main diagnoses in the age group >85

Main diagnosis	% of the whole group
Hemiplegia, unspecified	39.29%
Flaccid hemiplegia	21.43%
Spastic hemiplegia	17.86%
Cerebral infraction, unspecified	10.71%
Unspecified pneumonia	7.14%
Quadriplegia, unspecified	3.57%

most commonly reported diagnosis was "spastic hemiplegia" (40.58% of all patients) and "hemiplegia, unspecified" (21.19% of all patients).

The data analysis showed that the most significant number of patients undergoing neurological rehabilitation were those aged between 56 and 65 (34.09% of all studied patients) and between 66 and 75 (25.65% of all studied patients).

In the analysed research material 44% of the patients were women, 56% were men.

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Conclusions

1. The research has shown that the largest group of patients subjected to neurological rehabilitation in the territory of Lodz voivodship in 2013 were those aged between 56 and 75 years (59,74% of all the studied).

2. The research analysis has shown that the most commonly reported diagnosis was "spastic hemiplegia" (40.58% of all patients) and "hemiplegia, unspecified" (21.19% of all patients).

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