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Methods of examination in physical therapy, and occupational therapy of people after stroke (clinical case)

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***Abstract:** the prognosis of recovery of patients after acute cerebrovascular accident depends on the type, severity, and area of brain damage. This article highlights standardized tests and scales for physical therapy and occupational therapy for patients after stroke. An example is given of a clinical case of a patient with stroke consequences, with right-sided spastic hemiplegia. Medical rehabilitation was provided in April 2023 at the Municipal Non-Profit Enterprise "Consultative and Diagnostic Center", branch №6, Sviatoshynskiyi district, Kyiv, Department of Physical and Rehabilitation Medicine. After the patient visited the outpatient department of physical and rehabilitation medicine, the examination was conducted by the attending physician. A multidisciplinary team of a physical therapist and an occupational therapist was involved. An important step is the use of standardized tests and scales in physical therapy and occupational therapy. Based on the results of the examinations, the patient's goals are determined, and an individual rehabilitation program is built using evidence-based physical therapy and occupational therapy methods to provide a high-quality and effective rehabilitation cycle. Description of the objective. The standardized tests and scales in physical therapy, and occupational therapy are analyzed on the example of a clinical case of a patient after a stroke with right-sided spastic hemiplegia. Materials and methods. The clinician's handbook for 2020 on stroke rehabilitation was analyzed, with the justification of standardized tests and scales for physical therapy, and occupational therapy. A systematic review of the PubMed database was conducted, which included 44 scientific randomized trials and meta-analyses with accurate diagnoses of tests and scales for physical therapy and occupational therapy. The National Institutes of Health Stroke Scale (NIHSS) and the Modified Rankin Scale (mRS) were used to assess stroke. Modified Ashworth Scale for the assessment of spastic muscles in patients with neurological disorders. To determine cognitive outcomes and complications after stroke: Montreal Outcome Cognitive Assessment (MOCA); Modified Barthel Index (BI); Line Drawing Test. For motor function: Fugl-Meyer Assessment (FMA); Chedoke Arm and Hand Activity Instrument (CAHAI). Berg Balance Assessment; Morse Fall Risk Test; Stand and Walk Test. Results. The results of the initial examination in physical therapy and occupational therapy determined the patient's functional and cognitive state, consequences, and limitations arising after a stroke. The intermediate examination summarizes the effectiveness of the selected rehabilitation measures. If the patient's results remain unchanged, the physical and occupational therapist changes the approach and methods to achieve the goals. The final examination analyzes the dynamics of restoration of impaired functions, and achievement of goals by the end of the rehabilitation cycle. Therefore, we used the patient's clinical case to compare the initial, intermediate, and final examinations. This allowed us to*

analyze the results and determine the effectiveness of the selected individual rehabilitation program. Conclusions. The main principle of providing quality rehabilitation measures is the examination in the clinical practice of a physical therapist, and occupational therapist, which is used to measure the goals and compare the results achieved.

Keywords: [Activities of Daily Living](#), [Stroke Rehabilitation](#), [Evidence-Based Medicine](#), [Neurologic Examination](#), [Outcome and Process Assessment](#)

Introduction

The article discusses the issue of standardized examination methods in the example of a clinical case of a patient after a stroke with spasticity in outpatient settings. The role of evidence-based examination methods in physical therapy and occupational therapy in rehabilitation is substantiated.

Patients' outcomes can be different, and entail impairment of function, structure, limitation of activity, and participation. Visual, speech, and cognitive impairments; loss of sensation; paresis, plegia, and spasticity negatively affect daily activities. Impaired coordination and balance impede independent movement (Homola and Tsiganenko, 2023). There is a high risk of falls, resulting in a fracture of the femoral neck, and a fracture of the shoulder or elbow joint.

Rehabilitation measures begin with the diagnosis of the attending physician, examination of patients using standardized scales and tests by a multidisciplinary team: healthcare professionals, physical therapists and occupational therapists, other specialists may be involved as needed. Physical therapy and occupational therapy include clinical examination, diagnosis, discussion and interpretation of patient goals, individualized planning, interventions taking into account the consequences of stroke, and final evaluation of results, if necessary, counseling (World Confederation for Physical Therapy, 2010; Paci et al., 2021; Garcia et al., 2021; Tiwana and Bordoni, 2023).

A high-quality physical therapy examination, occupational therapy, is an important component of an individualized rehabilitation program for people after a stroke. The results provide an individualized approach and focus on the needs and requests of patients, and the applied methods of physical therapy, occupational therapy should be

based on evidence for the quality of rehabilitation services (Sackett et al., 1996).

Aim

To analyze and describe standardized examination methods in physical therapy, and occupational therapy, for the assessment of patients with stroke consequences.

Materials and Methods

A review of standardized examination methods in physical therapy, and occupational therapy for patients after stroke (Evidence-Based Review of Stroke Rehabilitation) was conducted. As an example, a clinical case of a patient after an acute cerebrovascular accident with right-sided spastic hemiparesis is considered.

The reliability and validity of stroke severity assessment is determined by the Modified Rankin Scale, which allows to assessment of the degree of disability, incapacity, and dependence on outside help in the daily life of patients. The test takes 5-10 minutes to complete. It has six degrees and is rated from 0 – 6 points. 1 point means no symptoms of the disease, and functional capacity is normal. The highest score of 5 is bedridden and requires care. The highest score of 6 assesses consequences that are incompatible with life (RANKIN, 1957; van Swieten et al., 1988; Banks and Marotta, 2007; Gaastra et al., 2022; Broderick et al., 2017).

Advantages: valid, reliable, short National Institutes of Health Stroke Severity Scale (NIHSS). The test takes about 2 minutes to complete. Most often used after the acute phase of stroke (Schlegel et al., 2004). It consists of 11 items and is an indicator of neurological outcomes and the degree of possible recovery of patients. The total number of points ranges from 0 – 42: where 0 means no symptoms, 1 – 4 mild stroke; higher scores from 5 – 15 moderate stroke; 16 – 20 moderate to severe stroke; 21 – 42 points reflect impairment affecting

activity, participation, function and structure (Heldner et al., M. 2013).

To assess the passive resistance of spastic muscles after a stroke, the Ashworth Scale (AS) or the modified Ashworth Scale (MAS) is used (Pan et al, 2022). The Ashworth scale has 15 functional movements that the patient needs to perform. The movements are divided into two sections for the affected arm and leg. Each movement is rated from 0 – 5 points: 0 points – no increase in muscle tone, 1 – barely noticeable increase in muscle tone, 2 – noticeable increase in muscle tone, 3 – significant increase in muscle tone, 4 – limb stiffness during flexion or extension (ASHWORTH, 1964; Ansari et al., 2008). The Ashworth scale is reliable in its application for patients after stroke (Chen et al, 2019; Merholz et al. 2005)

The Modified Ashworth Scale is a commonly used clinical tool for measuring muscle tone improvement in stroke patients with limb spasticity (Meseguer-Henarejos et al., 2018). It differs from the previous scale in that it involves 20 functional movements for testing. Functional movements, as in the previous one, are divided for the affected arm and leg. Each movement is tested from 0 – 4 points. It should be noted that in the Modified Ashworth Scale, +1 point was added, a slight increase in muscle tone (Bohannon and Smith, 1987; Craven and Morris, 2010).

The Morse fall risk test is used to determine the likelihood of patients falling. 6 questions need to be answered "yes" or "no". The results are scored: from 0 – 24, no risk of falling; from 25 to 50, low risk of falling; greater than or equal to 51 points, high risk of falling (Djurovic et al., 2021).

The Albert's Line Distortion Test to detect unilateral spatial neglect. It is not limited in time but is used for no more than 5 minutes. It requires a sheet of paper with 40 lines, divided in half and placed in front of the patient in the center. The examiner gives instructions and shows an example. Simple and quick to use. Once completed, the crossed-out lines on the right and left sides are counted and recorded. The result is if + 1 point, severe left-sided neglect; – 1 point, severe right-sided neglect; 0, neither left nor right side predominates (Sharp and Hepworth, 2023).

Stand and walk test with timing. To begin with, the physical therapist explains the task: the

patient stands up, walks 3 meters forward, turns around, and walks to his/her seat, the stopwatch stops as soon as the patient sits down in a chair. The result: less than 10 seconds of free movement; 10 to 20 seconds of predominant independence in movement; and more than 20 seconds of impaired ability to move (Podsyadlo and Richardson, 1991).

The 10-meter test is very reliable for patients after a stroke. It is used to assess walking speed. The patient is asked to walk in a straight line for 10 meters at maximum speed, and the time spent is recorded in meters per second (Druzbecki et al., 2018).

The Berg Balance Test (BBS), is an examination designed for older adults, but acceptable for patients after a stroke (Miyata et al., 2022; Louie and Eng, 2018; Liao et al, 2021). The indicator is performance-based and consists of 14 items, with a maximum score of 56 points. The time required is 15-20 minutes. Result: no more than 20 points, the patient uses a wheelchair; more than 20 or no more than 40 points, performs with assistance; more than 40 but no more than 56 points, independent in performing tasks (Berg, Maki and Williams, Holliday, and Woody-Dauphinee 1992; Berg, Wood-Dauphinee, Williams and Maki 1992; Berg, Wood-Dauphine and Williams, 1995).

The Montreal Outcome-Cognitive Assessment (MOCA) is the most commonly used test for patients after stroke to determine cognitive dysfunction. The test takes about 10 minutes to complete. Covers: language, visual-constructive skills, concentration and attention, memory, executive functions, counting and orientation, and abstract thinking. 11 tasks, a maximum score of 30, a score of 26 or more is considered normal (Zietemann et al, 2018; Sharma et al, 2020; Zanin et al, 2023).

The modified Barthel Activities of Daily Living Scale is used to diagnose stroke. The scale has been validated and reliable in clinical trials (González et al., 2018; Park, 2018). It helps to determine the level of functional independence in patients' daily lives. Conducting the test: observation of the patient's performance for 20 minutes, report from 2 to 5 minutes. There are 10 tasks in total, including eating, body care, dressing, bladder and bowel control, and movement. The maximum score is 100 – daily activities and vital functions

of the patient without restrictions. From 0 – 20 points, the patient is completely dependent; from 21 – 60 points – pronounced dependence; from 61 – 90 points – moderate dependence; from 91 – 99 points – mild dependence in everyday life. It is important to emphasize that there is a modified Barter index scoring from 0 – 5 points, and the original Barthel index scoring from 0 – 3 points (Ohura et al., 2017; MacIsaac et al 2017).

The Fugl-Meyer test for the assessment of motor function in post-stroke hemiplegia. Due to the reliability and validity of the test, it can be used as a standardized tool for assessing patients after a stroke (Hernández et al., 2021; Roman et al., 2020). The time required to complete the entire test ranges from 30 to 35 minutes. The test consists of 155 items, which are scored from 0 – 3 points. The result is: unable to perform the task 0 points; partial ability 1 point; almost normal ability 2 points; able to perform the task 3 points. The assessment requires a mat, several small objects, and objects for assessing sensitivity, reflexes, and range of motion. The maximum score for the motor function of the affected arm is 66 points; the maximum score for the leg is 34 points; the maximum score for balance is 14 points; sensitivity is 24 points; passive joint movements and joint pain have a maximum score of 44 points. The total score is 266 points (Fugl-Meyer et al, 1975; Fugl-Meyer, 1980).

The Chedoke Arm and Hand Activity Instrument (CAHAI) is a measure that assesses the functional impairment of the arm and hand in the daily life of patients after a stroke. It is reliable in use and reflects the proper structure and diagnostic content. The patient performs 13 tasks involving both hands. At the end, scores are calculated to reflect the patient's relative ability to perform daily activities after stroke (Ward et al., 2019; Schuster-Amft et al., 2018).

Results

Clinical case: on April 1, 2023, a 63-year-old patient consulted a neurologist at the Municipal Non-Profit Enterprise "Consultative Diagnostic Center" in Sviatoshynskyi district, branch №6. The patient consulted a neurologist N67002 in the Helsi system, by electronic referral. The doctor took anamnesis and conducted a neurological examination. At the time of the visit, the patient had the following complaints: pain in the right

shoulder, unsteady gait, and balance disorder. Dependence on outside help in caring for his own body and dressing. Loss of spatial and temperature sensitivity. Walking within the apartment under supervision with four canes, outside on uneven surfaces, and with minimal assistance.

Patient's diagnosis: January 20, 2023, Acute cerebral circulatory disorder of the ischemic type in the vertebrobasilar basin. Concomitant disease according to ICD-10: G80.02 Spastic hemiplegia. Comments: right-sided spastic hemiplegia, elements of motor aphasia. Hypertension of the third degree, risk 4 (very high). Reasons for treatment: N nervous system; N01 headache; N06 sensory disturbance; N05 tingling of fingers/toes, feet; N17 loss of balance/dizziness; N19 speech disorders. The patient was referred for an A67022 consultation with a physician of physical and rehabilitation medicine by electronic referral in the Helsi system. The patient and family members read and signed a voluntary consent form. After examining the patient, the results of the examinations were reported at a meeting of the multidisciplinary team. Based on the results and discussion, A57001 Medical rehabilitation for 15 days was opened. To provide medical rehabilitation services, outpatient conditions are offered under 54 packages, which makes it possible to receive free services. Reasons for applying for ICPC2: L57 physical medicine/rehabilitation. The patient and his family reported the goals they would like to achieve at the end of the rehabilitation cycle. Based on anamnesis, examination, and testing in physical therapy, occupational therapy, interventions, and methods of intervention are proposed to build an individual rehabilitation program to achieve the patient's goals.

Electronic referrals were issued for 15 days: consultation with a physician of physical and rehabilitation medicine; A67039 consultation with a physical therapist and A67009 consultation with an occupational therapist to enter data into the electronic system of rehabilitation examinations and patient dynamics. Interventions used: therapeutic exercises for the whole body 96129-00; skill training related to body position/mobility/movement 96130-00; joint manipulation or mobilization 50110-00; assessment of self-care, self-care 96021-00; skill training related to

self-care, self-care 96140-00; A Speech Therapist was involved in the multidisciplinary team, as the patient had elements of motor aphasia, so additional electronic referrals, interventions were prescribed: 96012-00 speech assessment; 96014-00 language assessment.

According to the initial physical therapy examination in Table 1. Degree of progressive control 5 points, in the intermediate examination the score is similar. The modified Rankin Scale at the time of the examination was 3 points, the patient's dependence on daily activities. In the interim examination, we did not get the desired results. Berg's balance score was 33 points, in the intermediate examination we had a score of 38 points. According to the modified Ashworth Spasticity Scale – 2 points right arm and leg, no changes in the intermediate assessment, we conclude that two weeks are not enough to affect spastic hemiplegia. Morse fall risk assessment scale at the beginning of the examination the patient had a score of 38 points, after a week of intermediate examination the score decreased by 4 points, which reduces the risk of falling. The Fugl-Meyer test at the beginning of the examination assessed the motor function of the affected leg, balance, sensitivity, passive joint movements, and joint pain, and resulted in a score of 49 points. The intermediate examination resulted in 57 points. The "Stand and Walk" test resulted in 44 seconds,

while the norm was 10 seconds. A week later, the intermediate assessment took 14 seconds less, and the result was 30 seconds.

The final physical therapy examination was performed on the last 15 days of medical rehabilitation: The degree of progressive control was 6 points, 1 point more. The modified Rankin Scale reached 2 points, increasing activity, participation, and independence in the patient's daily life. The Berg Balance Scale improved coordination and balance by 43 points, which is 10 points more than at the initial examination. Modified Ashworth Scale spasticity of the right arm and leg muscles decreased to 1 point. The Morse fall risk assessment scale of 30 points indicates that the patient has a low risk of falling, i.e. 8 points less compared to the initial examination. The final Fugl – Meyer test to assess the motor function of the affected leg, sensitivity, balance, passive joint movements, and joint pain resulted in 73 points. This is a significant improvement of 24 points compared to the initial examination. The patient completed the "Stand and Walk" test in 12 seconds, 32 seconds less than the initial assessment.

Initial occupational therapy examination in Table 2. the patient used his left hand during the test, the Montreal Cognitive Assessment reached 19 points, in the intermediate test the patient received a score of 23 points. The Barthel Scale score was 65 points, and in a week the

Table 1. Evaluation of physical therapy tests and scales

Tests and scales	Normal	Initial examination	Interim examination	Final examination
Degree of progressive control (McMaster)	7 levels	5	5	6
Modified Rankin Scale	0 – 5 points	3	3	2
Berg Balance Scale	0 – 56 points	33	38	43
Modified Ashworth Scale	0 – 5 points	2	2	1
Morse Fall Risk Assessment Scale (Morse Fall Scale)	0 – 46 points	38	34	30
Fugl-Meyer test lower extremity	Assessment of the motor function of the affected leg 34 points; assessment of sensitivity 24 points; balance 14 points; passive joint movements 44 points; joint pain 44 points	49	57	73
"Get up and walk" test	10 seconds	44 seconds	30 seconds	12 seconds

Table 2. Evaluation of occupational therapy tests and scales

Tests and scales	Normal	Initial examination	Interim examination	Final examination
The Montreal Cognitive Assessment (MoCA)	26-30 points	19	23	26
Barthel scale	0-100 points	65	77	85
Fugl-Meyer test Right upper limb	Assessment of the motor function of the affected arm 66 points; sensitivity 24 points; balance 14 points; range of motion in the joints 44 points; pain in the joints 44 points	31	41	57

result increased to 77 points, which improved the patient's independence in everyday life. The Fugl-Meyer test at the beginning had a total score of 31, summarizing: the assessment of the motor function of the affected arm, sensitivity, balance, passive joint movements, and joint pain. In the intermediate assessment, the total score was 41, which is 10 points higher than the initial examination.

According to the final examination by an occupational therapist, the patient's Montreal Cognitive Function Scale score reached 26 points, the patient used his left healthy arm. The Barthel Scale score was 85, which is 20 points higher than the initial assessment. In the final examination, the Fugl-Meyer test summarizing the assessment of motor function of the right affected arm, balance, sensitivity, passive joint movements, and joint pain, the patient received 57 points. This is an improvement of 26 points over the initial score.

Every day in outpatient physical therapy and occupational therapy sessions lasted up to 60 minutes. Speech therapy sessions lasted 30 minutes or more three times a week.

The physical therapist planned an individualized physical therapy program for the patient. The first week included therapeutic exercises to improve balance and coordination for 30 minutes, and therapeutic exercises in a rehabilitation cabin to strengthen the muscles of the back and lower extremities for 30 minutes. The second week: therapeutic endurance exercises for 30 minutes; therapeutic stretching exercises for 20 minutes; and treadmill with weights on the legs for 15-20 minutes. In the third week, the Motus Vitae exercise machine for the upper and

lower extremities was used to strengthen muscles for up to 40 minutes, walking with obstacles for 20 minutes.

The occupational therapist planned an individualized occupational therapy program for the patient. For the first week, therapeutic exercises for gross and fine motor skills were performed for up to 30 minutes. CIMT therapy was used, which limited the use of the healthy arm to 30 minutes. In the second week, attention was focused on exercises that encouraged improvement of the patient's independence and everyday activities, which were required for up to 60 minutes during the day. In the third week, therapeutic exercises were performed in the rehabilitation cabin, from the supine, sitting, and standing positions to strengthen the muscles of the upper extremities for up to 30 minutes. Also, they continued exercises to improve the patient's level of household activities and daily needs for 30 minutes.

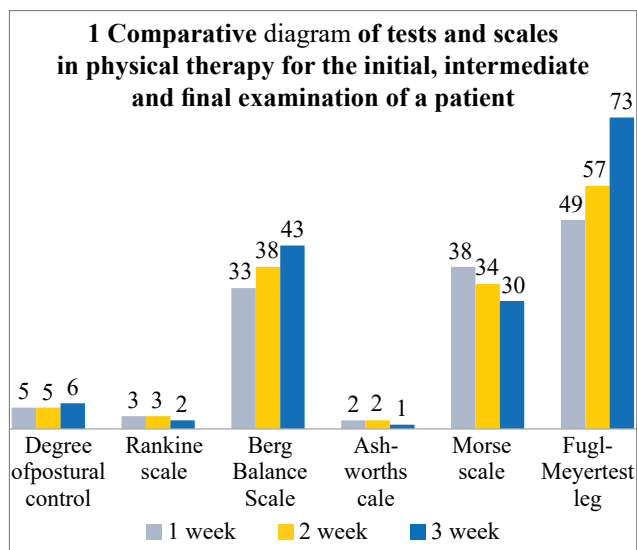
Discussion

After reviewing standardized physical therapy and occupational therapy tests and scales that are in line with the evidence-based medicine system. They help to assess the patient's condition, determine the goal, build an individualized program at the patient's request, and analyze the indicators of possible recovery after stroke.

Using Microsoft Office Excel 2007, we built two diagrams to visually display the comparative indicators of standardized examinations of physical therapy, and occupational therapy of a patient after a stroke in outpatient settings at the Municipal Non-Profit Enterprise "Consultative and Diagnostic Center", branch №6, Sviatoshynskiy district, Kyiv, Department of Physical and Rehabilitation

Medicine, after the rehabilitation cycle. The data obtained from the primary, intermediate, and final examination of the patient after the acute cerebrovascular accident of the ischemic type in the vertebrobasilar basin with right-sided spastic hemiplegia are described.

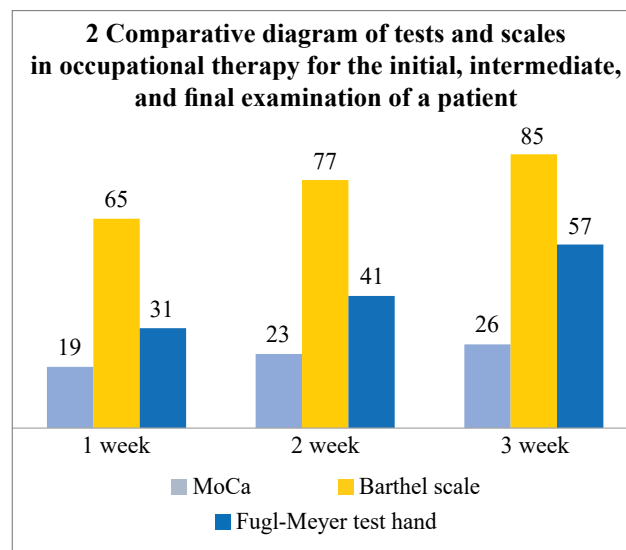
Comparative **diagram 1** physical therapy tests and scales in the initial, intermediate, and final examination of a patient after stroke.



Comparative diagram 1, shows standardized scales and tests in physical therapy, namely, a comparison of the initial, intermediate, and final examination of the patient in physical therapy. The degree of postural control at the initial examination is grade 5, the intermediate examination is unchanged, and the final examination is 1 point higher, i.e., grade 6 improves coordination of body position in space. Initial examination on the modified Rankin Scale 3 points, compared to the final score of 1 point less, which allows us to analyze 2 points as a mild functional impairment, not able to perform past activities, but preserved ability to serve their own needs. Berg’s score on the initial assessment was 33 points, the intermediate score was 5 points higher, and the final score was 43 points, the patient was independent. According to the modified Ashworth scale, the initial examination is 2 points, the intermediate one is similar, and the final one is 1 point, a slight increase in muscle tone, manifested by short-term resistance. Risk of falls according to the Morse scale: initial assessment 38 points, intermediate

assessment 4 points less, final 30 points, low risk of falls. Fugl – Meyer test on admission to the patient after a stroke, the score of the right lower extremity was 49 points, the intermediate score was 8 points higher, and the final score was 73 points, which significantly improved the functional state.

Comparative **diagram 2** occupational therapy tests and scales in the initial, intermediate, and final examination of a patient after a stroke.



In the initial occupational therapy examination according to the MoCa cognitive function scale, the patient had 19 points, in the intermediate by 4 points more, the final 26 points, is considered normal. Barthel Index at the beginning of the assessment was 65 points, in the intermediate by 12 points more, in the final 85 points, the score corresponds to a minimal limitation of neurological functions. The Fugl-Meyer test: initially 31 points, intermediate by 10 points more, and final 57 points, which improves the functional index of the upper limb.

We can conclude that standardized tests and scales for physical therapy and occupational therapy are directly related to each other (Fig. 1). If the patient has a low score on the modified Rankin Scale, then functional independence according to the Barthel Index of Activities of Daily Living will have a low score. Patient complains of pain that provokes spasticity of the muscles of the affected upper or lower limb, the patient will have poor sleep, and an unstable emotional state, which directly affects the decline in cognitive function according to the MoCa assessment.

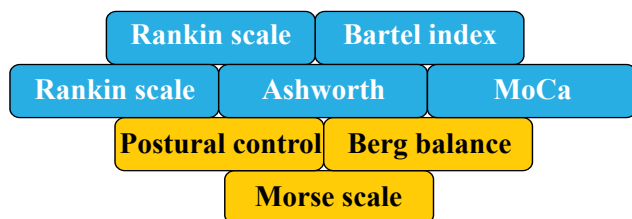


Figure 1. Direct connection between standardized assessments in physical therapy, occupational therapy

If the spasticity score is high on the Ashworth scale, we can assume that stroke survivors will have impaired sensitivity, limited range of motion, and a high degree of impairment of motor functions of the upper and lower extremities according to the Fugl-Meyer test. This affects the low level of progressive control and limitations in the Berg balance scale and the high risk of falling after stroke according to the Morse scale.

Conclusions

After analyzing the standardized methods of examination in physical therapy, and occupational therapy of persons after stroke, we can conclude that this is a significant indicator without which we cannot plan rehabilitation measures, to determine the dynamics of changes that have occurred during the rehabilitation cycle. Therefore, using the example of a clinical case of a patient after a stroke, we examined the methods of examination. Assessment by members of the multidisciplinary team took place on the first day of admission, an

intermediate examination was performed two weeks later, and a final examination was performed on the last day of outpatient rehabilitation. If the patient's dynamics remain unchanged, physical therapists and occupational therapists discuss and change the approach, an individual program that focuses on the patient's request. After all, rehabilitation does not end on an outpatient basis, recovery continues until the patient satisfies his or her needs.

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Conflict of interest

There is no potential conflict of interest in any form.

Consent to publication

The author has agreed to publish this manuscript.

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Homola Alona

A – Research concept and design, B – Collection and/or assembly of data, C – Data analysis and interpretation, D – Writing the article, E – Critical revision of the article, F – Final approval of article

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Методи обстеження у фізичній терапії, ерготерапії осіб після інсульту (клінічний випадок)

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Анотація: прогноз відновлення пацієнтів після гострого порушення мозкового кровообігу залежить від типу, тяжкості та ділянки ураження головного мозку. У даній статті висвітлені стандартизовані тести та шкали з фізичної терапії, ерготерапії для пацієнтів після інсульту. Наведений приклад, клінічного випадку пацієнта з наслідками інсульту, з правобічною спастичною геміплегією. Медична реабілітація надавалась у квітні 2023 році у Комунально некомерційному підприємстві «Консультативно-діагностичного центру», філія №6, Святошинського району, міста Києва, відділення фізичної та реабілітаційної медицини. Після звернення пацієнта в амбулаторне відділення фізичної та реабілітаційної медицини, обстеження проводив лікуючий лікар. Залучаючи мультидисциплінарну команду фізичного терапевта та ерготерапевта. Важливим етапом є застосування стандартизованих тестів та шкал з фізичної терапії, ерготерапії. За результатами отриманих обстежень визначають цілі пацієнта, будується індивідуально реабілітаційна програма з використанням методів фізичної терапії, ерготерапії що засновані на доказах, для надання якісного та ефективного реабілітаційного циклу. Опис мети. Проаналізовані стандартизовані тести та шкали з фізичної терапії, ерготерапії, на прикладі клінічного випадку пацієнта після інсульту з правобічною спастичною геміплегією. Матеріали і методи. Здійснений аналіз довідника клініциста, за 2020 рік з реабілітації після інсульту, з обґрунтуванням стандартизованих тестів та шкал з фізичної терапії, ерготерапії. Був проведений систематичний огляд бази даних PubMed, туди увійшли 44 наукові рандомізовані дослідження та мета-аналізи з точною діагностикою тестів та шкал з фізичної терапії, ерготерапії. Для оцінки інсульту застосовувались: шкала інсульту Національного інституту здоров'я (NIHSS), модифікована шкала Ренкіна (mRS). Модифікована шкала Ешворта для оцінювання спастичних м'язів у пацієнтів з неврологічними порушеннями. Для визначення когнітивних наслідків та ускладнень після інсульту: Монреальська шкала оцінки когнітивних функцій (МОСА); Модифікований індекс Бартеля (BI); Тест викреслення ліній. Для моторної функції: оцінюючий тест Фул-Мейєра (FMA); Інструмент активності руки та кисті Chedoke (СНАІ). Оцінювання рівноваги Берга; Тест ризику падінь Морзе; тест «Встань та йди». Результати. За результатами первинного обстеження у фізичній терапії, ерготерапії визначався функціональний та когнітивний стан пацієнта, наслідки та обмеження що виникають після інсульту. Проміжне обстеження підсумовує ефективність обраних реабілітаційних заходів. Якщо результати пацієнтів залишаються не змінними, фізичний терапевт та ерготерапевт змінює підхід та методи для досягнення поставлених цілей. Кінцеве обстеження, аналізує динаміку відновлення порушених функцій, досягнення цілей до моменту закінчення реабілітаційного циклу. Тому ми використали клінічний випадок пацієнта порівнявши первинне, проміжне та кінцеве обстеження. Що дало змогу проаналізувати результати та визначити ефективність обраної індивідуальної реабілітаційної програми. Висновки. Головним принципом надання якісних реабілітаційних заходів, є обстеження у клінічній практиці фізичного терапевта, ерготерапевта, що застосовуються для вимірювання поставлених цілей та порівняння досягнутих результатів.

Ключові слова: доказова медицина, неврологічне обстеження, оцінка результатів та процесу, повсякденна діяльність, реабілітація після інсульту



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