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PMS88

EXAMINATION OF EFFECTIVENESS OF GROUP PHYSIOTHERAPY USING DASH QUESTIONNAIRE AFTER DISTAL RADIAL FRACTURE

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OBJECTIVES: After-care of the injury of the distal radius's medical treatment is indispensable to the success of rehabilitation. The role of physiotherapy is essential, however there are few studies which carefully observe this type of fracture and group physiotherapy which follow treatment results. The aim of this study was to present the effectiveness of group physiotherapy after distal radial fracture. **METHODS:** We used the Quick DASH questionnaire and measured the active range of motion. **RESULTS:** In our examination there were 11 women and 11 men with an average age 56,73. According to our statistics, those who had an arm-fracture because they fell off were significantly older than the others (Mann-Whitney U=24,00, $p<0,001$, 65,47 yrs vs. 27,00). We can state that according to the Quick DASH scores the index significantly decreased during the 5-week gymnastic program ($p<0,001$; 50,93 points vs. 31,09 points). This fact was supported by the increase of the wrist joint movement range. The active flexion ($p<0,001$; 31,36 vs. 43,18), and also the active extension ($p=0,001$; 39,55 vs. 52,27) significantly increased. There was a strong correlation between the Quick DASH scores and the extension range of motion ($p<0,001$; $r=0,79$). The value of the coefficient was -0,78, which means when there is one degree extension movement-range increase, then the Quick DASH score will decrease by 0.78 point. **CONCLUSIONS:** Based on the results we can conclude that after a distal radial fracture it is useful to participate in group physiotherapy to reach the desired functions, because during the 10 -occasion - treatment we could manage to get significant improvement in the movement of the wrist joint. It is also confirmed by the Quick DASH score decrease. Furthermore we can state that the Quick DASH questionnaire can be used easily among people to measure the movement-injury of the upper limb.

PMS89

PATIENT COUNTS BASED ON THE MOST COMMONLY FUNDED DISEASES IN HOME SPECIAL CARE IN HUNGARY, 2013

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OBJECTIVES: The objective of our study was to analyze the patient counts of the most common diseases in home special care based on the financed cares by the National Health Insurance Fund Administration in Hungary. **METHODS:** Our data inquired from the Central Statistical Office come from the database of the National Health Insurance Fund Administration. The examined period was the year of 2013. **RESULTS:** The total patient counts per year in home special care amounted to 59.072 of which 56.336 (95.37%) were funded by National Health Insurance Fund Administration. Patients receiving special nursing within home special care amounted to 27.333 persons (46.3%), patients receiving special therapeutic service accounted for 31.739 (53.7%) persons, in which physiotherapy amounted to 27.228 (46.1%), physiotherapy accounted for 4.340 (7.3%), and speech therapy amounted to 171 (0.3%) persons. Patient counts were the following in the most common founded diseases: 1) Ulcer of lower limb (L97) 5.100 (9.1%); 2) Coxarthrosis (M16) 4.832 (8.6%); 3) Gonarthrosis (M17) 3.822 (6.8%); 4) Decubitus ulcer (L89) 3.797 (6.7%); 5) Fracture of femur (S72) 3.707 (6.6%) patients. Ratio of patient counts per 100.000 inhabitants in the most common funded diseases were as follows: 1) Ulcer of lower limb 51.6; 2) Coxarthrosis 48.8; 3) Gonarthrosis 38.6; 4) Decubitus ulcer 38.4; 5) Fracture of femur 37.5. **CONCLUSIONS:** The occurrence of patient number of the financed most frequent diseases confirm the legitimacy of special nursing and special therapeutic services in home special care. The role of physiotherapy among special therapeutic services is highly emphasized. Analysis and recognition of the findings play an essential role in future planning and development of home special care.

PMS90

EXAMINATION OF THE EFFECTIVENESS OF CORE TRAINING BETWEEN JUNIOR WOMEN BASKETBALL PLAYERS TO PREVENT SPORTS INJURIES

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OBJECTIVES: The objective of our analysis was to survey the efficiency of Core training among junior women basketball players to prevent injuries, paying special attention to the improvement of static and dynamic balance and coordination, the mobilizing and stabilizing function of the trunk muscles and their balancing ability, the range of motion and proprioception of its joints, moreover strengthening the trunk muscles, while performing exercises on stable and instable surfaces. **METHODS:** 12 women participated in the exercise program. Basketball players were subjected to various tests before and after the program. Static balance was tested by Stork Stand Test; dynamic balance by Triple-hop Test; mobilizing functions, balancing ability, movement range of joints and proprioception of the trunk by FMS Test (Functional Movement Screen); and muscle endurance of the trunk by Core Test. **RESULTS:** Due to the training, both in the Stork Stand and Triple-hop Test we experienced significant improvement in the results of the right leg ($p<0,001$) and left leg ($p<0,001$). As for the values of the athletes, in case of the FMS Test they performed considerably better after the exercise program than before regarding both main scores and partial scores. Considering the average improvement in the results, 42% improvement has been attained. In terms of the results reached in the Core Test, comparing the pre- and post-program values, a significant improvement could be seen ($p<0,001$). Between the samples tested an average of 0.66-minute significant improvement was detected. **CONCLUSIONS:** It can be stated that the application of core training is effective among junior women basketball players in terms of the

improvement of static and dynamic balance and coordination, the mobilizing and stabilizing function of the trunk muscles and its ability to keep balance, and the range of motion and proprioception of its joints; and moreover, the strengthening of the trunk muscles.

PMS91

NUMBER OF CASES BASED ON THE MOST COMMONLY FUNDED DISEASES IN HOME SPECIAL CARE IN HUNGARY, 2013

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OBJECTIVES: The aim of our study was to analyze the number of cases of the most common diseases in home special care based on the financed cares by the National Health Insurance Fund Administration in Hungary. **METHODS:** Our data inquired from the Central Statistical Office come from the database of the National Health Insurance Fund Administration. The period examined was the year of 2013. **RESULTS:** The total number of cases per year in home special care amounted to 133.342 of which 103.551 (77,66%) were funded by National Health Insurance Fund Administration. Number of cases to special nursing within home special care amounted to 68.914 cases (51,7%), number of cases to therapy service by specialty accounted for 64.428 (48,3%) cases, in which physiotherapy amounted to 57.509 (43,1%), physiotherapy accounted for 6.555 (4,9%), and speech therapy amounted to 364 (0,3%) cases. Number of cases were the following in the most common founded diseases: 1) Ulcer of lower limb (L97) 16.760 (16,2%); 2) Decubitus ulcer (L89) 9.587 (9,3%); 3) Coxarthrosis (M16) 6.346 (6,1%); 4) Fracture of femur (S72) 5.174 (5,0%); 5) Gonarthrosis (M17) 5.069 (4,9%) cases. Ratio of number of cases per 100.000 inhabitants in the most common funded diseases were as follows: 1) Ulcer of lower limb 169,4; 2) Decubitus ulcer 96,9; 3) Coxarthrosis 64,1; 4) Fracture of femur 52,3; 5) Gonarthrosis 51,2. **CONCLUSIONS:** The occurrence of case number of the financed most frequent diseases confirm the legitimacy of special nursing and special therapeutic services in home special care. The role of physiotherapy among special therapeutic services is highly emphasized. Analysis and recognition of the findings play an essential role in future planning and development of home special care.

PMS92

COMPARISON OF THE QUALITY OF LIFE IN ELDERLY POPULATION ACCORDING TO THE OCCURRENCE OF FEMORAL NECK FRACTURE

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OBJECTIVES: The aim of this study was to compare two groups within the elderly population: those members who had suffered femoral neck fracture (target group), and the other members who had not suffered any lower limb fracture (control group). **METHODS:** The basic tools for the comparison were the quality of life, range of motion of the lower limb and the muscle. **RESULTS:** The average age of the total 16 examined patients was 77,2 years. 8 participants had suffered femoral neck fracture, the other 8 patients had not suffered any lower limb fracture yet. 63% of the group with femoral neck fracture was also diagnosed with osteoporosis. The femoral neck fracture occurred in the right side for 7 patients. In addition, only 2 patients had other fractures. Considering the results of the Sf-36 there was no significant difference between the two groups ($p=0,16$). The quality of life in the target group not considerably differs from the result of the control group. The EQ-5D questionnaire showed that walk problems of the femoral neck fractures patients are barely worse as in the control group, and we results are the same in case of anxiety and pain. They are much restricted in self-sufficiency and ordinary activities than those who have not suffered fractures. Regarding lower limb motion dimension and muscle strength there were significant differences in the main motions of the hip (flexion: $p=0,04$, extension: $p=0,03$, abduction: $p=0,03$, adduction: $p=0,004$) and muscle (flexion: $p=0,02$, extension: $p=0,02$, adduction: $p=0,02$) both broken and healthy side, both fractures suffered and not suffered among groups. **CONCLUSIONS:** In summary it can be said that there important differences were not found between the groups during the investigation of the quality of life. Further examination in larger number of elements and patients could give larger certainty by the achieved results.

PMS93

EVALUATION AND DEVELOPMENT OF HABITUAL POSTURE AND POSTURE DEEMED CORRECT WITH BACK SCHOOL PROGRAM AMONG PRIMARY SCHOOL CHILDREN

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OBJECTIVES: The posture of 60-80% of primary school children is incorrect. Inadequate posture and use of spine in childhood can be the basis of adult degenerative spinal diseases. A back school program can influence the posture of children in a positive direction. Our purpose was to assess the habitual posture and posture deemed correct of primary school children. **METHODS:** 26 primary school first-graders were chosen for our prospective research with non-random sample selection (average age: 6,8 (6,2-7,0)). The posture was examined by photogrammetry test. The statistical analysis was performed with SPSS software version 22.0. We used Wilcoxon test to compare values before and after the back school program, and the results were considered significant if $p<0,05$. **RESULTS:** At the habitual posture comparing the results measured before and after the back school program, from the front view, the median ($p=0,003$), the shoulder symmetry ($p=0,016$), the pelvis symmetry ($p=0,001$) significantly changed, from the lateral view, the median ($p=0,001$), the thoracic spine ($p<0,001$), the lumbar spine ($p=0,001$) significantly improved. At the posture deemed correct comparing the results measured before and after the back school program, from the front view, the median ($p=0,001$), the shoulder symmetry ($p<0,001$), the pelvis symmetry ($p<0,001$) significantly changed, from the lateral view, the median ($p<0,001$), the thoracic spine ($p<0,001$), the lumbar spine ($p<0,001$) significantly improved. The total score of habitual posture ($p<0,001$)

and posture deemed correct ($p < 0.001$) significantly changed. **CONCLUSIONS:** The child back school program improves the posture of primary school children. The developed program can also be used in kindergarten.

PMS94

THE MOST COMMON OCCUPATIONAL ILLNESSES OF MEDICAL- AND SPORTS MASSEURS

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OBJECTIVES: The aim of our research was to compare the symptoms of the musculoskeletal system of the medical- and sport masseurs. **METHODS:** Altogether 58 medical- and sport masseurs completed the survey in our research. The examination has been carried out for 4 months, in Hungary. 45 out of the 58 participants, 77.59% had an issue with their musculoskeletal system in the past 12 months. **RESULTS:** Our first presumption has proven true, that among medical- and sport masseurs, hand and wrist problems are the most common, because 74,14% had an issue with their hands or wrists in the last one year. The other research was about to estimate the frequency of pain on each regions of the hand. The assumption in this case seemed also right, most of the symptoms were caused by the „thenar” area, where 39,66% of the participants indicated pain on the right hand, while 31,03% on the left. Our third hypothesis has been verified partly, because there were significantly more waist symptoms in medical masseurs compared to sport masseurs ($p = 0.0001$), however there were no significant difference in wrist pain between the two groups ($p = 0.95$). We also observed the difference in the musculoskeletal system symptoms between male and female gender. This assumption did not show any essential difference ($p = 0.8521$). Our last assumption has been refuted, because our results showed that only 50% of the participants suffered from low back pain, while according to the specialized literature, this rate is about 60-85% in the society. **CONCLUSIONS:** The musculoskeletal system symptoms could be easily prevented, if people would comply with the joint protection rules and would practice muscle strengthening exercises every week.

PMS95

THE EXAMINATION OF LOCATION AND FREQUENCY OF PAIN IN WEIGHT TRAINING

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OBJECTIVES: The aim of our research was to test the location and frequency of pain among people doing weight training. **METHODS:** The type of our research was quantitative, cross-sectional. The sample size was 129 person ($N = 129$). The selection method was objective expert sampling. Data was collected with the application of standard questionnaires (Nordic-test and Roland Morris). The analysis of the data was made by descriptive and mathematical (Chi-square test, Mann-Whitney U-test, linear regression) statistical methods, analysis was made with SPSS 20.0 and Microsoft Office Excel programs. The significance level had been specified in 5%. **RESULTS:** The most painful areas among people doing weight training are the shoulders (47,3%) and the low back (38,8%). Medical consultation with the existing complaints most commonly happens in case of low back pain (10,9%). Those patients who consulted with their doctor have a significantly higher Roland Morris index (average RMI=5,07) than those who did not see their physicians (average RMI=1,38) ($p = 0.003$). As the age progressed the Roland Morris index score had increased significantly ($p < 0.001$), with a medium-strength, positive correlation. The obstruction due to back pain is defined by age in 18% ($r^2 = 0.18$). The upcoming knee pain is significantly high in case of women ($p = 0.025$). 28,4% of men, 47,9% of women indicated knee problems. **CONCLUSIONS:** Based on our results it can be stated that weight training causes shoulder pain in most of the cases, however the medical consultations most commonly happen due to back pain. The known dangers of training made for health maintenance requires the application of prevention methods, and the development of the general knowledge about the correct implementation of the exercises and the overall training theory.

PMS96

REGIONAL DISTRIBUTION OF THE MOST COMMON SPA SERVICES IN HUNGARY IN 2014

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OBJECTIVES: The aim of this study was to examine the distribution of the three most common types of treatment nationwide. **METHODS:** Our data were obtained from the Central Statistical Office. The list of spa and other medical care treatment contained 11 activities. The examined period was the year of 2014. **RESULTS:** The most commonly performed treatment in the country was medicinal thermal water ($n = 2.076.148$), the second was medical massage therapy ($n = 1.642.037$), and the third was underwater group physiotherapy ($n = 686.773$). In the year of 2014, the three most common user of medicinal thermal water therapy was Central Hungary (483.103), Western Transdanubia (455.256), and Southern Great Plain (383.578). The second place in Hungary for the frequency of performed treatments are medical massage therapy. The mostly frequented treatments were performed in Northern Great Plain ($n = 405.856$), then in the Southern Great Plain ($n = 366.675$) and Western Transdanubia. The underwater group physiotherapy meant a greater discrepancy in the national context between the number of treatments. The number of this therapy was the most significant factor in the Northern Great Plain ($n = 227.174$), in the Southern Great Plain ($n = 153.584$) and in Southern Transdanubia ($n = 87.176$). **CONCLUSIONS:** Regional differences may arise from the fact that the opportunities provided by the environment do not make the treatment available in some regions. As a long term goal cooperation between the tourism industry and the professional physicians needs to be developed to overcome regional differences. As a marketing tool, it is necessary to emphasize the positive effects of spa services both in outpatient and inpatient care.

PMS97

A MULTI-CENTRE RETROSPECTIVE STUDY TO DESCRIBE THE IMPACT ON HEALTHCARE RESOURCE USE AND REAL WORLD EFFECTIVENESS OF GOLIMUMAB IN ANKYLOSING SPONDYLITIS (AS) IN UK CLINICAL PRACTICE

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OBJECTIVES: Study aims were to describe the impact of Tumour Necrosis Factor- α (TNF- α) inhibitor golimumab on UK real-world healthcare resource use (HRU) and evaluate the clinical effectiveness of golimumab in the treatment of Ankylosing Spondylitis (AS). This abstract presents HRU data for the 6 months pre- and post-golimumab initiation as well as effectiveness data at 6 months post-golimumab initiation compared with the closest observation pre-golimumab initiation. **METHODS:** This multicentre observational study of consenting adult patients was carried out via retrospective medical chart review in six UK NHS hospital rheumatology departments between November 2015 and October 2016. Inclusion criteria included AS diagnosis, anti-TNF- α naïve, received minimum three doses of golimumab for AS, and first dose at least 12 months before data collection. Effectiveness was measured using the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Spinal Pain Visual Analogue Scale (VAS) and Bath Ankylosing Spondylitis Functional Index (BASFI). Patients with missing data are excluded from the effectiveness analysis. **RESULTS:** The study enrolled 47 eligible patients, 74% male, mean age of 46.4 years, mean golimumab treatment duration of 2.3 years. A significant reduction of 30.4% (Mann-Whitney $p < 0.005$) in mean number of rheumatology clinic visits (from 2.3 to 1.6) and a 27.3% reduction in mean number of clinical investigations (from 13.4 to 9.7) over the 12-month period was observed (Mann-Whitney $p < 0.05$). 74% (32/43) of patients achieved a clinically meaningful change (BASDAI score reduced by 2 or more), and overall mean BASDAI score reduced by 3.9 points [$n = 43$] (Mann-Whitney $p < 0.001$). 75% (18/24) of patients achieved a reduction in spinal pain VAS by 2cm or more indicating a treatment response. Overall mean BASFI score improved by 4.1 points [$n = 26$] (Mann-Whitney $p < 0.001$). **CONCLUSIONS:** Golimumab was associated with statistically significant reductions in HRU and clinically meaningful improvements in UK patients with AS during the first 6 months of treatment.

PMS98

THE RESOURCE COST OF SWITCHING STABLE RHEUMATOLOGY PATIENTS FROM AN ORIGINATOR BIOLOGIC TO A BIOSIMILAR IN THE UK

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OBJECTIVES: Switching stable patients from branded biologics to biosimilars may offer potential cost savings through discounted drug prices however little is known about the impact on NHS resource use and the cost of service level activities. This study aimed to describe and quantify the impact on NHS resource use and the cost of service level activities required to conduct an originator biologic to biosimilar switch. **METHODS:** This study was conducted in three UK rheumatology centres using a mixed methodology: (1) Semi-structured one-to-one interviews with key staff members involved in a recent Enbrel® to Benepali® switch to determine activities involved in the switch process, (2) Collecting service level data to quantify time and resource associated with switch activities. For each centre, a description of the switch model was developed and associated costs calculated using published NHS reference costs. **RESULTS:** Similar costs for switch planning activities (£12,638-£ 15,276) were observed across all three centres. Switch implementation and follow-up costs varied between £6,975 and £61,386 per centre depending on the model used. Key factors influencing the implementation cost included the use of dedicated switch vs. routine outpatient clinics, patient education and consent methods, and inclusion of additional post-switch monitoring clinic appointments. Overall, between 320 and 987 hours of staff time was spent on the switch per centre (estimated 149-176 patients switched per centre). **CONCLUSIONS:** Switching from a biologic to a biosimilar was shown to be associated with additional NHS activities and resource use which should be considered by NHS stakeholders alongside potential drug cost savings. This study quantifies real-world resource costs associated with different switch models selected by centres to meet perceived patient needs. Costings varied considerably, reflecting differing numbers of patients switched and services provided. A fourth centre will be added and further work required to understand patient experience of the switch.

PMS99

THE ECONOMIC IMPACT OF RHEUMATOID ARTHRITIS ON PATIENTS' HOUSEHOLDS. AN ESTIMATION OF THE DISEASE RELATED CATASTROPHIC HEALTH EXPENDITURE, IN GREECE

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OBJECTIVES: As a chronic condition rheumatoid arthritis (RA) is related with significant life time health care expenditure a share of which, is estimated to burden the patient and the household. Aim of this study is to estimate the private health expenditure of patients with RA and its impact on patient's household. **METHODS:** A telephone survey took place during which patients with RA were asked to provide with information regarding their out-of-pocket, medical and non-medical, expenditures for the management of their disease, six months prior the telephone interview. Patients were recruited through the relevant patients associations. Catastrophic