

LITERATURA

1. Aktivní život. Světový den RS. (2017). <http://www.aktivnizivot.cz/zajimave-tipy/svetovy-den-roztrousene-sklerozy/>
2. Aladro Y, Alemany MJ, Pérez-Vieitez MC, Amela R, Conde M, Reyes MP, et al. Prevalence and incidence of multiple sclerosis in Las Palmas, Canary Islands, Spain. *Neuroepidemiology*. 2005;24(1–2):70–5.
3. Almas S, Vance J, Baker T, Hale T. Management of multiple sclerosis in the breastfeeding mother. *Mult Scler Int*. 2016;2016:6527458.
4. Alonso A, Hernán MA. Temporal trends in the incidence of multiple sclerosis: a systematic review. *Neurology*. 2008;71(2):129–35.
5. Alosaimi FD, AlMulhem A, Moscovici M, AlShalan H, Alqazlan M, Aldaif A, et. al. The relationship between psychosocial factors and cognition in multiple sclerosis. *Behavioural Neurology*. 2017;6847070. doi: 10.1155/2017/6847070.
6. Arnett PA, Rabinowitz AR (2010). The neuropsychological presentation and treatment of demyelinating disorders. In Gurd JM, Kischka U, Marshall JC, editors. *The handbook of clinical neuropsychology*. 2nd ed. Oxford: Oxford University Press;2010. p. 585–605.
7. Ascherio A, Munger KL. Environmental risk factors for multiple sclerosis. Part II: Noninfectious factors. *Ann Neurol*. 2007;61(4):288–99.
8. AV Institut. (2013). https://www.google.cz/search?q=Roztrou%C5%A1en%C3%A1+skler%C3%B3za&dcr=0&source=lnms&tbm=isch&sa=X&ved=0ahUKEwjKq7X57PXXAhUNnRQKHeSJDhEQ_AUICigB&biw=1324&bih=662#imgrc=8MECCf_e4zfvIM:&spf=1512579812685
9. Bagert B, Camplair P, Bourdette D. Cognitive dysfunction in multiple sclerosis. Natural history, pathophysiology and management. *CNS Drugs*. 2002;16:445–55.
10. Bagur MJ, Murcia MA, Jiménez-Monreal AM, et al. Influence of diet in multiple sclerosis: a systematic review. *Adv Nutr*. 2017;8(3):463–72.
11. Baker TE, Cooper SD, Kessler L, Hale TW. Transfer of natalizumab into breast milk in a mother with multiple sclerosis. *J Human Lac: J Int Lac Cons Assoc*. 2015;31(2):233–6.
12. Baroncini D, Ghezzi A, Annovazzi PO, Colombo B, Martinelli V, Minonzio G, et al. Natalizumab Versus Fingolimod in Patients With Relapsing-Remitting Multiple Sclerosis Non-Responding to First-Line Injectable Therapies. *Mult Scler*. 2016;22(10):1315–26.
13. Barrett CL, Mann GE., Taylor PN, Strike P. A randomized trial to investigate the effects of functional electrical stimulation and therapeutic exercise on Walking performance for people with multiple sclerosis. *Mult Scler*. 2009;15(4):493–504.

14. Beier M, Bombardier CH, Hartoonian N, Motl RW, Kraft GH. Improved physical fitness correlates with improved cognition in multiple sclerosis. *Arch Phys Med Rehabil.* 2014;95(7):1328–34.
15. Belachew S, Phan-Ba R, Bartholomé E, Delvaux V, Hansen I, Calay P, et al. Natalizumab induces a rapid improvement of disability status and ambulation after failure of previous therapy in relapsing-remitting multiple sclerosis. *Eur J Neurol.* 2011;18(2):240–5.
16. Berrios GE, Quemada JI. Multiple Sclerosis. *The History of Clinical Psychiatry.* 1995; p. 174–92.
17. Bobholz JA, Rao SM. Cognitive dysfunction in multiple sclerosis: a review of recent developments. *Curr Opin Neurol.* 2003;16(3):283–8.
18. Bompreszi, R. Dimethyl fumarate in the treatment of relapsing-remitting multiple sclerosis: an overview. *Ther Adv Neurol Disord.* 2015;8(1):20–30.
19. Brettschneider J, Czerwoniak A, Senel M, et al. The chemokine CXCL13 is a prognostic marker in clinically isolated syndrome (CIS). *PLoS One* 2010; 5(8):e11986.
20. Brex PA, Ciccarelli O, O’Riordan JI, Sailer M, Thompson AJ, Miller DH. A longitudinal study of abnormalities on MRI and disability from multiple sclerosis. *N Engl J Med.* 2002;346(3):158–64.
21. Brinkman V. FTY 20 (fingolimod) in multiple sclerosis: therapeutic effect in the immune and the central nervous system. *Br J Pharmacol.* 2009;158(5): 1173–82.
22. Broekmans T, Roelants M, Feys P, et al. Effects of long-term resistance training and simultaneous elektro-stimulation on muscle strength and functional mobility in multiple sclerosis. *Mult Scler.* 2011;17:466–77.
23. Burešová E, Vidlář A. Močové dysfunkce u pacientů s roztroušenou sklerózou. *Urol. praxi.* 2014;15(5):241–3.
24. Calcagno P, Ruoppolo G, Grasso MG, De Vincentiis M, Paolucci S. Dysphagia in multiple sclerosis – prevalence and prognostic factors. *Acta Neurologica Scandinavica* 2002;105:40–3.
25. Cantó E, Tintoré M, Villar LM, et al. Chitinase 3-like 1: prognostic biomarker in clinically isolated syndromes. *Brain.* 2015;138(Pt 4):918–31.
26. Carrá A, Onaha P, Luetic G, Burgos M, Crespo E, Deri N, et al. Therapeutic outcome 3 years after switching of immunomodulatory therapies in patients with relapsing-remitting multiple sclerosis in Argentina. *Eur. J. Neurol.* 2008; 15:386–93.
27. Cesta za duhou. (2017). <http://www.cestazaduhou.cz/#>.
28. Ciron J, Hautecoeur P, Mathis S, Neau JP. Natalizumab throughout pregnancy: risk of low platelet count in the newborn at delivery. *Rev Neurol (Paris).* 2016;172(2):165–6.
29. Cohen JA, Barkhof F, Comi G, Hartung HP, Khatri BO, Montalban X, et al. TRANSFORMS Study Group. Oral fingolimod or intramuscular interferon for relapsing multiple sclerosis. *N Engl J Med.* 2010;362:402–15.
30. Cohen JA, Coles AJ, Arnold DL, Confavreux C, Fox EJ, Hartung HP, et al. CARE-MS I investigators. Alemtuzumab versus interferon beta-1a as first-line

- treatment for patients with relapsing-remitting multiple sclerosis: a randomised controlled phase 3 trial. *Lancet*. 2012;380(9856):1819–28.
31. Coles AJ, Twyman CL, Arnold DL, Cohen JA, Confavreux C, Fox EJ, et al. CARE-MS II investigators. Alemtuzumab for patients with relapsing multiple sclerosis after disease-modifying therapy: a randomised controlled phase 3 trial. *Lancet*. 2012;380(9856):1829–39.
 32. Colosimo C, Millefiorini E, Grasso MG, Vinci F, Fiorelli M, Koudriavtseva T, et al. Fatigue in MS associated with specific clinical features. *Acta Neurol Scand*. 1995;92:353–2.
 33. Colucci M, Roccatagliata L, Capello E, et al. The 14-3-3 protein in multiple sclerosis: a marker of disease severity. *Mult Scler*. 2004;10(5):477–81.
 34. Comabella M, Fernandez M, Martin R, et al. Cerebrospinal fluid chitinase 3-like 1 levels are associated with conversion to multiple sclerosis. *Brain*. 2010;133(4):1082–93.
 35. Comi G, De Stefano N, Freedman MS. Comparison of two dosing frequencies of subcutaneous interferon beta-1a in patients with a first clinical demyelinating event suggestive of multiple sclerosis (REFLEX): a phase 3 randomised controlled trial. *Lancet Neurol*. 2012;11:33–41.
 36. Comi G, Martinelli V, Rodegher M, Moiola L, Bajenaru O, Carra A, et al. Effect of glatiramer acetate on conversion to clinically definite multiple sclerosis in patients with clinically isolated syndrome (PreCISE study): a randomised, double-blind, placebo-controlled trial. *Lancet*. 2009;374(9700):1503–11.
 37. Compston A, Coles A. Multiple sclerosis. *Lancet*. 2002;359(9313):1221–31.
 38. Confavreux C, Hutchinson M, Hours MM, Cortinovis-Tourniaire P, Moreau T. Rate of pregnancy-related relapse in multiple sclerosis. *Pregnancy in multiple sclerosis group*. *New Eng J Med*. 1998;339(5):285–91.
 39. Confavreux C, Vukusic S, Adeleine P. Early clinical predictors and progression of irreversible disability in multiple sclerosis: an amnesic process. *Brain*. 2003;126(Pt 4):770–82.
 40. Confavreux C, Vukusic S. The natural history of multiple sclerosis. *Rev Prat*. 2006;56(12):1313–20.
 41. Costantino CM, Baecher-Allan C, Hafler DA. Multiple sclerosis and regulatory T cells. *J Clin Immunol*. 2008;28(6):697–706.
 42. Cox JL, Koepsell SA, Shunkwiler SM. Therapeutic plasma Exchange and pregnancy: a case report and guidelines for performing plasma exchange in a pregnant patient. *J Clin Apher*. 2017;32(3):191–5.
 43. Cree B, Vollmer TL. Clinically isolated syndrome evaluation, risk stratification and treatment decision, *Adv Stud Med*. 2008;8(8):257–65.
 44. Cree BAC, Kappos L, Freedman MS, Cohen JA, Sprenger T, Ritter S, et al. Long-term effects of fingolimod on NEDA by year of treatment. Poster presented at: 31stECTRIMS Annual Congress; October 7-10, 2015; Barcelona, Spain. Poster Session 1; p. 627.
 45. Cutter GR, Baier ML, Rudick RA, Cookfair DL, Fischer JS, Petkau J, et al. Development of a multiple sclerosis functional composite as a clinical trial outcome measure. *Brain*. 1999;122(Pt 5):871–82.

46. Cutter NC, Scott DD, Johnson JC, Whiteneck G. Gabapentin effect on spasticity in multiple sclerosis: a placebo-controlled, randomized trial, *Arch Phys Med Rehabil.* 2000;81:164–9.
47. Dahl J, Myhr KM, Daltveit AK, Hoff JM, Gilhus NE. Pregnancy, delivery, and birth outcome in women with multiple sclerosis. *Neurology.* 2005;65(12):1961–3.
48. Dalgas U, Stenager E, Jakobsen J, et al. Muscle fiber size increases following resistance training in multiple sclerosis. *Mult Scler.* 2010;16:1367–76.
49. Davenport L, Beyer B, Truffinet P. Nonclinical data demonstrate high sensitivity of rats versus humans to embryo-fetal toxicity when exposed to teriflunomide. London, UK: 32nd Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS). 2016(September 14–17).
50. De Groat WC. A neurologic basis for the overactive bladder. *Urology* 1997;50(Suppl. 6A):36–49
51. De Pauw A, Dejaeger E, D'hooghe B, Carton H. Dysphagia in multiple sclerosis. *Clinical Neurology and Neurosurgery.* 2002;104:345–51.
52. De Rosbo NK, Kaye JF, Eisenstein M, Mendel I, Hoeflberger R, Lassmann H, et al. The myelin-associated oligodendrocytic basic protein region MOBP15-36 encompasses the immunodominant major encephalitogenic epitope(s) for SJL/J mice and predicted epitope(s) for multiple sclerosis-associated HLA-DRB1*1501. *J Immunol.* 2004;173:1426.
53. Di Filippo M, Anderson VM, Altmann DR, Swanton JK, Plant GT, Thompson AJ, et al. Brain atrophy and lesion load measures over 1 year relate to clinical status after 6 years in patients with clinically isolated syndromes. *J Neurol Neurosurg Psychiatry.* 2011;81(2):204–8.
54. Domov sv. Josefa. (2017). <http://www.domovsvatehojosefa.cz/domov-se-predstavuje.html>.
55. Dufek M. Roztroušená skleróza – EDSS (expanded disability status scale), tzv. Kurtzkeho škála. *Neurol. praxi.* 2011;12(Suppl. G):6–9.
56. Durelli L, Verdun E, Barbero P, Bergui M, Versino E, Ghezzi A, et al. Independent Comparison of Interferon (INCOMIN) Trial Study Group. Every-other-day interferon beta-1b versus once-weekly interferon beta-1a for multiple sclerosis: results of a 2-year prospective randomised multicentre study (INCOMIN). *Lancet* 2002;359:1453–60.
57. Dvořák K. Demyelinizační onemocnění – atlas patologie pro studenty medicíny. (n.d.).
58. EMA. Lemtrada® (alemtuzumab) – EPAR summary of product characteristics 2013. Available from: http://www.ema.europa.eu/docs/en_GB/document_library/EPAR_-_Product_Information/human/003718/WC500150521.pdf.
59. eReS týmu ČR. (n.d.). <http://www.erestymcr.cz/o-nas/default/o-nas>
60. Ereska Net. (2017). <https://ereska.net/>
61. Erwin A1, Gudesblatt M, Bethoux F, Bennett SE, Koelbel S, Plunkett R, et al. Intrathecal baclofen in multiple sclerosis: too little, too late? *Mult Scler.* 2011 May;17(5):623-9. doi: 10.1177/1352458510395056. Epub 2011 Jan 31.
62. Evans E, Levasseur V, Cross AH, et al. An overview of the current state of evidence for the role of specific diets in multiple sclerosis. *Mult Scler Relat Disord.* 2019;36:101393.

63. Fagius J, Burman J. Normal outcome of pregnancy with ongoing treatment with natalizumab. *Acta Neurol Scand.* 2014;129(6):e27–9.
64. Faure E. Multiple sclerosis and hepatitis B vaccination: could minute contamination of the vaccine by partial hepatitis B virus polymerase play a role through molecular mimicry? *Med Hypotheses.* 2005;65(3):509–20.
65. Fergusson D, Hutton B, Sharma M, et al. Use of intravenous immunoglobulin for treatment of neurologic conditions: a systematic review. *Transfusion.* 2005;45:1640.
66. Ferrero S, Pretta S, Ragni N. Multiple sclerosis: management issues during pregnancy. *Eur J Obstet Gynecol Reprod Biol.* 2004;115(1):3–9.
67. Fischer JS, Priore RL, Jacobs LD, Cookfair DL, Rudick RA, Herndon RM, et al. Neuropsychological effects of interferon beta-1a in relapsing multiple sclerosis. Multiple Sclerosis Collaborative Research Group. *Ann Neurol.* 2000;48(6):885–92.
68. Fowler CJ, Miller JR, Sharief MK, Hussain IF, Stecher VJ, Sweeney M. A double blind, randomised study of sildenafil citrate for erectile dysfunction in men with multiple sclerosis, *J Neurol Neurosurg Psychiatry.* 2005;76:700–5.
69. Fowler CJ, van Kerrebroeck PE, Nordenbo A, Van Poppel H. Treatment of lower urinary tract dysfunction in patients with multiple sclerosis. Committee of the European Study Group of SUDIMS (Sexual and Urological Disorders in Multiple Sclerosis). *J Neurol Neurosurg Psychiatry.* 1992;55:986–9.
70. Fox RJ, Kita M, Cohan SL, Henson LJ, Zambrano J, Scannevin RH, et al. BG-12 (dimethyl fumarate): a review of mechanism of action, efficacy, and safety. *Curr Med Res Opin.* 2014;30(2):251–62.
71. Fox RJ, Miller DH, Phillips JT, Hutchinson M, Havrdova E, Kita M, et al. CONFIRM Study Investigators. Placebo-controlled phase 3 study of oral BG-12 or glatiramer in multiple sclerosis. *N Engl J Med.* 2012;367:1087–97.
72. Franklin GM, Nelson L. Environmental risk factors in multiple sclerosis: causes, triggers, and patient autonomy. *Neurology.* 2003;61(8):1032–4.
73. Freal JE, Kraft GH, Coryell JK. Symptomatic fatigue in multiple sclerosis. *Arch Phys Med Rehabil.* 1984;65:135–8.
74. Gajofatto A, Bacchetti P, Grimes B, et al. Switching first-line disease-modifying therapy after failure: impact on the course of relapsing-remitting multiple sclerosis. *Mult Scler.* 2009;15(1):50–8.
75. Gajofatto A, Calabrese M, Benedetti MD, Monaco S. Clinical, MRI, and CSF markers of disability progression in multiple sclerosis. *Dis Markers.* 2013;35(6):687–99.
76. Gandhi R, Laroni A, Weiner HL. Role of the innate immune system in the pathogenesis of multiple sclerosis. *J Neuroimmunol.* 2010;221:7–14.
77. Garcea O, Villa A, Cáceres F, Adoni T, Alegría M, Barbosa Thomaz R, et al. Early treatment of multiple sclerosis: a Latin American experts meeting, *Mult Scler.* 2009;15 (Suppl 3):S1–S12.
78. Gay MC, Vrignaud P, Garitte C, Meunier C. Predictors of depression in multiple sclerosis patients. *Acta Neurol Scand.* 2010;121:161–70.
79. Geissbühler Y, Vile J, Koren G, Wang H, Butzkueven H, Tilson H, et al. Cumulative data on pregnancy outcomes after exposure to fingolimod and in compa-

- risson with the general population. 32nd Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS). London, UK; September 14-17, 2016.
80. Gentile A, Musella A, Bullita S, et al. Siponimod (BAF 312) prevents synaptic neurodegeneration in experimental multiple sclerosis. *J Neuroinflammation* 2016;13(1):207.
 81. Giovannoni G, Gold R, Kappos L, Arnold DL, Bar-Or A, Kurukulasuriya NC, et al. Delayed-Release Dimethyl Fumarate and Disability Assessed by the Multiple Sclerosis Functional Composite: Integrated Analysis of DEFINE and CONFIRM. Boston, MA, USA; September 10–13, 2014. P057.
 82. Gold R, Arnold DL, Bar-Or A, Hutchinson M, Kappos L, Havrdova E, et al. Long-term effects of delayed-release dimethyl fumarate in multiple sclerosis: Interim analysis of ENDORSE, a randomized extension study. *Mult Scler.* 2017;23(2):253–65.
 83. Gold R, Giovannoni G, Phillips JT, Fox RJ, Zhang A, Meltzer L, et al. Efficacy and safety of delayed-release dimethyl fumarate in patients newly diagnosed with relapsing-remitting multiple sclerosis (RRMS). *Mult Scler.* 2015;21(1):57–66.
 84. Gold R, Hartung H, Stangel M, Wiendl H, Zipp F, Expertenmeetings T. Therapeutic goals of baseline and escalation therapy for relapsing-remitting multiple sclerosis. *Akt Neurol.* 2012;39:342–50.
 85. Gold R, Kappos L, Arnold DL, Bar-Or A, Giovannoni G, Selmaj K, et al. DEFINE Study Investigators. Placebo-controlled phase 3 study of oral BG-12 for relapsing multiple sclerosis. *N Engl J Med.* 2012;367(12):1098–107.
 86. Gold R, Wolinsky JS. Pathophysiology of multiple sclerosis and the place of teriflunomide. *Acta Neurol Scand.* 2011;124(2):75–84.
 87. Goodkin DE, Rudick RA, VanderBrug Medendorp S, et al. Low-dose (7.5 mg) oral methotrexate reduces the rate of progression in chronic progressive multiple sclerosis. *Ann Neurol.* 1995;37:30.
 88. Goodman AD, Brown TR, Edwards KR, Krupp LB, Schapiro RT, Cohen R, et al. MSF204 Investigators. A phase 3 trial of extended release oral dalfampridine in multiple sclerosis. *Ann Neurol.* 2010;68:494–502.
 89. Gorelik L, Lerner M, Bixler S, Crossman M, Schlain B, Simon K, et al. Anti-JC virus antibodies: implications for PML risk stratification. *Ann Neurol.* 2010;68(3):295–303.
 90. Goverover Y, Genova HM, Hillary FG, DeLuca J. The relationship between neuropsychological measures and the Timed Instrumental Activities of Daily Living task in multiple sclerosis. *Mult Scler.* 2007;13(5):636–44.
 91. Gracies JM, Bayle N, Vinti M, Alkandari S, Vu P, Loke CM, et al. Five step clinical assessment in spastic paresis. *Eur J of Phys Rehabil Med.* 2010; 46(3):411–21.
 92. Grassiot B, Desgranges B, Eustace F, Defer G. Quantification and clinical relevance of brain atrophy in multiple sclerosis: a review. *J Neurol.* 2009;256:1397–412.
 93. Gudmundsdottir S, Svennerholm B, Kristensson K, Lycke E. Herpes simplex virus-enhanced production of autoantibodies against myelin basic protein in mice. *Arch Virol.* 1986;88(1–2):37–47.

94. Habek M, Karni A, Balash Y, Gurevich T. The place of the botulinum toxin in the management of multiple sclerosis *Clinical Neurology and Neurosurgery* 2010;112:592–6.
95. Hale TW, Siddiqui AA, Baker TE. Transfer of interferon beta-1a into human breastmilk. *Breastfeed Med.* 2012;7(2):123–5.
96. Hauser SL. The Charcot Lecture | beating MS: a story of B cells, with twists and turns. *Mult Scler.* 2015;21(1):8–21.
97. Havrdová E, et al. *Roztroušená skleróza*. Praha: Mladá Fronta; 2013.
98. Havrdova E, Galetta S, Hutchinson M, Stefoski D, Bates D, Polman CH, et al. Effect of natalizumab on clinical and radiological disease activity in multiple sclerosis: a retrospective analysis of the Natalizumab Safety and Efficacy in Relapsing-Remitting Multiple Sclerosis (AFFIRM) study. *Lancet Neurol.* 2009;8(3):254–60.
99. He A, Spelman T, Jokubaitis V, Havrdova E, Horakova D, Trojano M, et al. MSBase Study Group. Comparison of switch to fingolimod or interferon beta/glatiramer acetate in active multiple sclerosis. *JAMA Neurol.* 2015;72(4):405–13.
100. Hellwig K, Gold R. Glatiramer acetate and interferon-beta throughout gestation and postpartum in women with multiple sclerosis. *J Neurol.* 2011;258(3):502–3.
101. Hellwig K, Rockhoff M, Herbstritt S, Borisow N, Haghikia A, Elias-Hamp B, et al. Exclusive breastfeeding and the effect on postpartum multiple sclerosis relapses. *JAMA Neurol.* 2015;72(10):1132–8.
102. Hensiek AE, Seaman SR, Barcellos LF, et al. Familial effects on the clinical course of multiple sclerosis. *Neurology.* 2007;68(5):376–83.
103. Herbstritt S, Langer-Gould A, Rockhoff M, Haghikia A, Queisser-Wahrendorf A, Gold R, Hellwig K. Glatiramer acetate during early pregnancy: a prospective cohort study. *Mult Scler.* 2016;22(6):810–6.
104. Hirst C, Ingram G, Pearson O, et al. Contribution of relapses to disability in multiple sclerosis. *J Neurol.* 2008;255:280–7.
105. Høglund RA, Maghazachi AA. Multiple sclerosis and the role of immune cells. *World J Exp Med.* 2014;4(3):27–37.
106. Hommes OR, Sørensen PS, Fazekas F, et al. Intravenous immunoglobulin in secondary progressive multiple sclerosis: randomised placebo-controlled trial. *Lancet.* 2004;364:114.
107. Hoskovcová M, Honsová K, Keclíková L. Rehabilitace u roztroušené sklerózy. *Neurol praxi* 2008;9(4):232–5.
108. Hutchinson M, Gold R, Fox RJ, Havrdova E, Givannoni G, Zhang A, et al. Clinical efficacy of BG-12 (dimethyl-fumarate) for relapsing–remitting multiple sclerosis according to prior therapy: an integrated analysis of the Phase 3 DEFINE and CONFIRM studies. Poster presented at: 29th ECTRIMS Annual Congress; October 2-5, 2013; Copenhagen, Denmark; P563.
109. Hyman N, Barnes M, Bhakta B, Cozens A, Bakheit M, Kreczy Kleedorfer B, et al. Botulinum toxin (Dysport) treatment of hip adductor spasticity in multiple sclerosis: a prospective, randomised, double blind, placebo controlled, dose ranging study. *J Neurol Neurosurg Psychiatry.* 2000;68(6):707–12.
110. Chari, DM. Remyelination in multiple sclerosis. *Int Rev Neurobiol.* 2007;79: 589–620.

111. Cheng PY, Lai PY. Comparison of exoskeleton robots and end-effector robots on training methods and gait biomechanics. *Intelligent robotics and applications: 6th International Conference, ICIRA 2013 Busan, South Korea, September 25–28, 2013, Proceedings, Part I*. Springer, 2013, pp. 258–266. doi: 10.1007/978-3-642-40852-6.
112. Chia YW, Fowler CJ, et al: Prevalence of bowel dysfunction in patients with multiple sclerosis and bladder dysfunction. *J Neurol*. 1995;242 (2):105–8.
113. Chiaravalloti N, DeLuca J. Cognitive impairment in multiple sclerosis. *Lancet Neurol*. 2008;7(12):1139–51.
114. Chiu ChY, Griffith D, Bezyak J, Motl R. (2016). Psychosocial factors influencing lifestyle physical activity engagement of African Americans with multiple sclerosis: a qualitative study. *Journal of Rehabilitation*. 2016;82(2):25–30.
115. Chmelařová D, Ambler Z, Dostál M, Vobořilová V. Rehabilitace kognitivních funkcí u pacientů s roztroušenou sklerózou. *Cesk Slov Neurol N*. 2014; 77/110(6),677–83.
116. Chun J, Hartung HP. Mechanism of action of oral fingolimod (FTY720) in multiple sclerosis. *Clin Neuropharmacol*. 2010;33(2):91–101.
117. IFNB Multiple Sclerosis Study Group. Interferon beta-1b is effective in relapsing-remitting multiple sclerosis. I. Clinical results of a multicenter, randomized, double-blind, placebo-controlled trial. *Neurology*. 1993;43:655–61.
118. Jacobs L, Beck RW, Simon JH, Kinkel RP, Brownschidle CM, Murray TJ, et al. Intramuscular interferon beta-1a therapy initiated during a first demyelinating event in multiple sclerosis. CHAMPS Study Group. *N Engl J Med*. 2000;343(13):898–904.
119. Jacobsen C, Hagemeyer J, Myhr KM, et al. Brain atrophy and disability progression in multiple sclerosis patients: a 10-year follow-up study. *J Neurol Neurosurg Psychiatry*. 2014;85:119–20.
120. Javůrková A, Zimová D, Tomašovičová K, Raudenská J. (2016). Cognitive deficits and neuropsychological assessment in multiple sclerosis. In Gonzales-Quevedo A, editor, *Trending Topics in Multiple Sclerosis*. InTechOpen. doi: 10.5772/63968.
121. Jedlička P. Epidemiology of multiple sclerosis in Czechoslovakia. *Cesk Slov Neurol N*. 1986;49/6(390–6):0301–0597.
122. Jednotlivé formy/fáze RS. Roztroušená skleróza. Wikipedie. (2017). https://cs.wikipedia.org/wiki/Roztrou%C5%A1en%C3%A1_skler%C3%B3za
123. Kalincik T, Brown JW, Robertson N, Willis M, Scolding N, Rice CM, et al. MSBase Study Group. Treatment effectiveness of alemtuzumab compared with natalizumab, fingolimod, and interferon beta in relapsing-remitting multiple sclerosis: a cohort study. *Lancet Neurol*. 2017;16(4):271–81.
124. Kalsi V, Gonzales G, Popat R, Apostolidis A, Elneil S, Dasgupta P, et al. Botulinum injections for the treatment of bladder symptoms of multiple sclerosis. *Ann Neurol*. 2007;62:452–7.
125. Kappos L, Clanet M, Sandberg-Wollheim M, Radue EW, Hartung HP, Hohlfeld R, et al. European Interferon Beta-1a IM Dose-Comparison Study Investigators. Neutralizing antibodies and efficacy of interferon beta-1a: a 4-year controlled study. *Neurology*. 2005;65(1):40–7.

126. Kappos L, Freedman MS, Polman CH, Edan G, Hartung HP, Miller DH, et al. BENEFIT Study Group.: Effect of early versus delayed interferon beta-1b treatment on disability after a first clinical event suggestive of multiple sclerosis: a 3 – year follow-up analysis of the BENEFIT study. *Lancet*. 2007;370(9585):389–97.
127. Kappos L, Radue EW, O'Connor P, Polman C, Hohlfeld R, Calabresi P, et al. FREEDOMS Study Group. A placebo-controlled trial of oral fingolimod in relapsing multiple sclerosis. *N Engl J Med*. 2010;362:387–401.
128. Kasper L, Shoemaker J. Multiple sclerosis immunology: The healthy immune system vs. the MS immune system. *Neurology*. 2010;74:S2–S8.
129. Katz Sand I. The role of diet in multiple sclerosis: mechanistic connections and current evidence. *Curr Nutr Rep*. 2018;7(3):150–60.
130. Kesselring J. Neurorehabilitation – applied neuroplasticity. *Mult Scler*. 2006; 11:2–4
131. Khan O, Shen Y, Caon CH. Axonal metabolic recovery and potential neuroprotective effect of glatiramer acetat in relapsin-remitting multiple sclerosis. *Mult Scler*. 2005;11:646–51.
132. Khan OA, Tselis AC, Kamholz JA, Garbern JY, Lewis RA, Lisak RP. A prospective, open label treatment trial to compare the effect of IFNbeta-1a (Avonex), IFNbeta-1b (Betaferon), and glatiramer acetate (Copaxone) on the relapse rate in relapsing remitting multiple sclerosis: results after 18 months of therapy. *Mult Scler* 2001;7:349–53.
133. Khatri B, Barkhof F, Comi G, Hartung HP, Kappos L, Montalban X, et al. TRANSFORMS Study Group. Comparison of fingolimod with interferon beta-1a in relapsing-remitting multiple sclerosis: a randomised extension of the TRANSFORMS study. *Lancet Neurol*. 2011;10(6):520–9.
134. Klein C, Lammens A, Schäfer W, et al. Epitope interactions of monoclonal antibodies targeting CD20 and their relationship to functional properties. *MAbs*. 2013;5(1):22–33.
135. Knotková S. (2013). Roztroušená skleróza. <http://www.symptomy.cz/nemoc/roztrousena-skleroza>
136. Koch-Henriksen N, Sørensen P, Christensen T, Frederiksen J, Ravnborg M, Jensen K, et al. Danish Multiple Sclerosis Group. A randomized study of two interferon-beta treatments in relapsing–remitting multiple sclerosis. *Neurology*. 2006;66;1056–60.
137. Kolář P, et al. Rehabilitace v klinické praxi. Praha: Galén, 2009.
138. Komiyama KJ, Nakae S, Matsuki T, Nambu A, Ishigame H, Kakuta S, et al. IL-17 plays an important role in the development of experimental autoimmune encephalomyelitis. *J. Immunol*. 2006;177:566–73.
139. Kramer A, Dettmers C, Gruber M: Exergaming with additional postural demands improves balance and gait in patients with multiple sclerosis as much as conventional balance training and leads to high adherence to home-based balance training. *Arch Phys Med Rehabil*. 2014;95(10):1803–9.
140. Krejsek J, Andrýs C, Krčmová I. *Imunologie člověka*. Hradec Králové: Garamon; 2016. p. 468–70.

141. Krejsek J. Novinky v patogenezi roztroušené sklerózy. Co je skryto za disabilitou pacientů s RS. *Remedia*. 2014; S2–4.
142. Krejsek J. Roztroušená skleróza mozkomíšní, úloha střevní mikrobioty v poškozujícím zánětu. *Cesk Slov Neurol N*. 2019;82(2):141–7.
143. Krupp LB, Coyle PK, Doscher C, Miller A, Cross AH, Jandorf L, et al. Fatigue therapy in multiple sclerosis: results of a double blind, randomized, parallel trial of amantadine, pemoline and placebo. *Neurology*. 1995;45:1956–61.
144. Krupp LB, Christodoulou C, Melville P, Scherl WF, Pai LY, Muenz LR, et al. Wishart H. Multicenter randomized clinical trial of donepezil for memory impairment in multiple sclerosis. *Neurology*. 2011;76(17):1500–7.
145. Kübler-Rossová E, et al. O smrti a umírání. Praha: Portál; 2015.
146. Kučerová H. (2011). Roztroušená skleróza. <http://kurzesperanto.xf.cz/SRP.html>
147. Kurtzke JF: Rating neurologic impairment in multiple sclerosis: an expanded disability status scale (EDSS). *Neuroepidemiology*. 2008;31(1):1–9.
148. Langdon DW, Thompson AJ. Multiple sclerosis: a preliminary study of selected variables affecting rehabilitation outcome. *Mult Scler*. 1999;5(2):94–100.
149. Laycock J, Jerwood J. Pelvic Floor Muscle Assessment: The PERFECT Scheme. *Physiotherapy Journal* 2001;87(12):631–42.
150. Li J, Johansen C, Brønnum-Hansen H, Stenager E, Koch-Henriksen N, Olsen J. The risk of multiple sclerosis in bereaved parents: A nationwide cohort study in Denmark. *Neurology*. 2004;62(5):726–9.
151. Lidovky. Pacientů přibývá. Dostupnost léčby roztroušené sklerózy se ale zlepšila. (9.2.2014). https://relax.lidovky.cz/pacientu-pribyva-dostupnost-lecby-roztrousene-sklerozy-se-ale-zlepsila-1qy-/zdravi.aspx?c=A140209_103114_In-zdravi_hm
152. Liebert UG, Linington C, ter Meulen V. Induction of autoimmune reactions to myelin basic protein in measles virus encephalitis in Lewis rats. *J Neuroimmunol*. 1988;17(2):103–18.
153. Limmroth V, Malessa R, Zettl UK, Koehler J, Japp G, Haller P, et al. QUASIMS Study Group. Quality Assessment in Multiple Sclerosis Therapy (QUASIMS): A comparison of interferon beta therapies for relapsing–remitting multiple sclerosis. *J Neurol* 2007;254:67–77.
154. Link H, Huang YM. Oligoclonal bands in multiple sclerosis cerebrospinal fluid: an update on methodology and clinical usefulness. *J. Neuroimmunol*. 2006;180(1-2):17–28.
155. Lishman WA. Organic Psychiatry. The Psychological Consequences of Cerebral Disorder. 3th ed. Blackwell Science Ltd.:1998. p. 688–91.
156. Lo AC. Improving Gait in multiple sclerosis using robot-assisted, body weight supported Treadmill training. *Neurorehabilitation and Neural Repair*. 2008; 22(6):661–71.
157. Lo Fermo S, Barone R, Patti F, Laisa P, Cavallaro TL, Nicoletti A, et al. Outcome of psychiatric symptoms presenting at onset of multiple sclerosis: a retrospective study. *Mult Scler*. 2010;16:742–8.
158. LoPresti P. Glatiramer acetate guards against rapid memory decline during relapsing-remitting experimental autoimmune encephalomyelitis. *Neurochem Res*. 2015;40(3):473–9.

159. Lublin FD, Cutter G, Giovannoni G, Pace A, Campbell NR, Belachew S. Natalizumab reduces relapse clinical severity and improves relapse recovery in MS. *Mult Scler Relat Disord*. 2014;3(6):705–11.
160. Lublin FD, Reingold SC, Cohen JA, Cutter GR, Sørensen PS, Thompson AJ, et al. Defining the clinical course of multiple sclerosis: the 2013 revisions. *Neurology*. 2014;83(3):278–86.
161. Lublin FD, Reingold SC. Defining the clinical course of multiple sclerosis: results of an international survey. National Multiple Sclerosis Society (USA) Advisory Committee on Clinical Trials of New Agents in Multiple Sclerosis. *Neurology*. 1996;46(4):907–11.
162. Lucio AC, Campos RM, Perissinotto MC, Miyaoka R, Damasceno BP, D'ancona CA. Pelvic floor muscle training in the treatment of lower urinary tract dysfunction in women with multiple sclerosis. *Neurourol Urodyn*. 2010;29:1410–3.
163. Lünemann JD, Kamradt T, Martin R, Münz C. Epstein-Barr Virus: Environmental Trigger of Multiple Sclerosis? *J. Virol*. 2007;81(13):6777–84.
164. Lycke J. Monoclonal antibody therapies for the treatment of relapsing-remitting multiple sclerosis: differentiating mechanisms and clinical outcomes. *Ther Adv Neurol Disord*. 2015;8(6):274–93.
165. Maier S, Balasa R, Buruian M, Maier A, Bajko Z. (2015). Depression in multiple sclerosis – review. *Romanian Journal of Neurology*. 2015;14(1):22–29.
166. Markowitz C. Symptomatic therapy of multiple sclerosis. *Continuum (Minneapolis)*. 2010;16:90–104.
167. Markowitz CE. Interferon-beta: mechanism of action and dosing issues. *Neurology*. 2007;68(24 Suppl 4):S8–11.
168. Marrie, RA, Patten SB, Greenfield J, Svenson LW, Jette N. (2016). Physical comorbidities increase the risk of psychiatric comorbidity in multiple sclerosis. *Brain and Behavior*. 2006;0(0):e00493. doi: 10.1002/brb3.392.
169. Marrie, RA, Reingold S, Cohen J, Stuve O, Trojano M. The incidence and prevalence of psychiatric disorders in multiple sclerosis: a systematic review. *Multiple Sclerosis*, 2015;21(3):305–17.
170. Marrie, RA. Environmental risk factors in multiple sclerosis aetiology. *Lancet Neurol*. 2004;3(12):709–18.
171. Masopust J, Urban A, Vališ M. *Neuropsychiatrické případy*. Praha: Galén; 2011. p. 289.
172. McDonald WI, Compston A, Edan G, Goodkin D, Hartung HP, Lublin FD, et al. Recommended diagnostic criteria for multiple sclerosis: guidelines from the International Panel on the diagnosis of multiple sclerosis. *Ann Neurol*. 2001;50:121–7.
173. Miller AE, Wolinsky JS, Kappos L, Comi G, Freedman MS, Olsson TP, et al. TOPIC Study Group. Oral teriflunomide for patients with a first clinical episode suggestive of multiple sclerosis (TOPIC): a randomised, double-blind, placebo-controlled, phase 3 trial. *Lancet Neurol*. 2014;13(10):977–86.
174. Miller D, Barkhof F, Montalban X, Thompson A, Filippi M. Clinically isolated syndromes suggestive of multiple sclerosis, part I: natural history, pathogenesis, diagnosis, and prognosis. *Lancet Neurol*. 2005;4(5):281–8.

175. Miller DH, Leary SM. Primary-progressive multiple sclerosis. *Lancet Neurol.* 2007;6(10):903–12.
176. Miller JR. The importance of early diagnosis of multiple sclerosis, *J Manag Care Pharm.* 2004;10:S4–S11.
177. Mitchell AJ. *Neuropsychiatry and behavioural neurology explained.* London: Saunders; 2004. p. 525.
178. Mlčoch Z. Roztroušená skleróza mozkomíšní (RS), demyelinizace – příznaky, léčba, recidivy [online]. [cit. 2009-08-21]
179. Modrý koník. (2016). <https://www.modrykonik.cz/roztrousena-skleroza/>
180. Modvig S, Degen M, Roed H, Sørensen TL, Larsson HB, Langkilde AR, et al. Cerebrospinal fluid levels of chitinase 3-like 1 and neurofilament light chain predict multiple sclerosis development and disability after optic neuritis. *Mult Scler.* 2015;21(14):1761–70.
181. Montalban X, Hauser SL, Kappos L, et al. Ocrelizumab versus Placebo in Primary Progressive Multiple Sclerosis. *N Engl J Med.* 2017;376:221–34.
182. Montalban X, Sastre-Garriga J. Diagnosis and trials of clinically isolated syndrome. *Lancet Neurol.* 2014;13(10):962–3.
183. Morrow SA, Weinstock-Guttman B, Munschauer FE, Hojnacki D, Benedict RH. Subjective fatigue is not associated with cognitive impairment in multiple sclerosis: cross-sectional and longitudinal analysis. *Mult Scler.* 2009;15(8):998–1005.
184. Moss-Morris R, McCrone P, Yardley L, van Kessel K, Wills G, Dennison L. A pilot randomised controlled trial of an Internet-based cognitive behavioural therapy self-management programme (MS Invigor8) for multiple sclerosis fatigue. *Behav Res Ther.* 2012;50:415–21.
185. Motlova L, Holub D. Compliance a adherence: spolupráce při léčbě. 2005 [cited 2013 Mar 1] Available from: URL <http://www.remedia.cz/Okruhy-temat/Psychiatrie/Compliance-a-adherence-spoluprace-pri-lecbe/8-1n-bl.magarticle.aspx>
186. Mowry EM, Pesic M, Grimes B, Deen SR, Bacchetti P, Waubant E. Clinical predictors of early second event in patients with clinically isolated syndrome. *J Neurol.* 2009;256(7):1061–6.
187. MS Statistics. (2016). <https://multiplesclerosis.net/what-is-ms/statistics/>
188. MSIF. (n.d.). <https://www.msif.org/>
189. MSrehab. (2017). <http://www.msrehab.cz/spolek.html>
190. Murphy R, O'Donoghue S, Counihan T, McDonald C, Calabresi PA, Ahmed MA, et al. Neuropsychiatric syndromes of multiple sclerosis. *J Neurol Neurosurg Psychiatry.* 2017;88(8):697–708.
191. Nadace Jakuba Voráčka. (2015). <http://www.nadacejakubavoracka.cz/o-nadaci/>
192. Nadání Fond IMPULS. (2017). <http://www.nfimpuls.cz/index.php/roztrousena-skleroza-registr/remus>
193. Noseworthy JH, O'Brien PC, Weinshenker BG, et al. IV immunoglobulin does not reverse established weakness in MS. *Neurology.* 2000;55:1135.
194. Novakova L, Axelsson M, Khademi M, et al. Cerebrospinal fluid biomarkers of inflammation and degeneration as measures of fingolimod efficacy in multiple sclerosis. *Mult Scler.* 2017;23(1):62–71.

195. Novotná A, Mareš J, Ratcliffe S, Nováková I, Váchova M, Zapletalová O, et al. A randomized, double blind, placebo-controlled, parallel-group, enriched design study of nabiximols (Sativex) as add-on therapy, in subjects with refractory spasticity caused by multiple sclerosis. *Eur J Neurol*. 2011;18(9):1122–31.
196. Novotná K, Lízrová Preiningerová J. Poruchy chůze u pacientů s roztroušenou sklerózou. *Neurol. praxi* 2013;14(4):185–7.
197. Novotná K, Preiningerová J. Poruchy chůze u pacientů s roztroušenou sklerózou. *Neurol. praxi*. 2013;14(4):185–7.
198. O'Connor AB, Schwid SR, Herrmann DN, et al. Pain associated with multiple sclerosis: systematic review and proposed classification. *Pain*. 2008;137(1):96–111.
199. Okuda DT, Mowry EM, Beheshtian A, Waubant E, Baranzini SE, Goodin DS, et al. Incidental MRI anomalies suggestive of multiple sclerosis: the radiologically isolated syndrome. *Neurology*. 2009;72(9):800–5.
200. Olsson T, Boster A, Fernández Ó, Freedman MS, Pozzilli C, Bach D, et al. Oral ponesimod in relapsing-remitting multiple sclerosis: a randomised phase II trial. *J Neurol Neurosurg Psychiatry*. 2014;85(11):1198–208.
201. Ordinace.cz. (2017). <http://www.ordinace.cz/clanek/mobilni-aplikace-pro-pacienty-s-roztrousenou-sklerozou-v-top-na-eyeforpharma-barcelona-awards/>.
202. Outteryck O, Zéphir H, Salleron J, Ongagna JC, Etxeberria A, Collongues N, et al. JC-virus seroconversion in multiple sclerosis patients receiving natalizumab. *Mult Scler*. 2014;20(7):822–9.
203. Pascual AM, Martínez-Bisbal MC, Boscá I, et al. Axonal loss is progressive and partly dissociated from lesion load in early multiple sclerosis. *Neurology*. 2007;69(1):63–7.
204. Pavelek Z, Krejsek J, Vališ M. Role T a B lymfocytů v patogenezi roztroušené sklerózy. *Neurol. pro praxi*. 2016;17(2):100–3.
205. Pavelek Z, Ryška P, Vališ M. Eskalace léčby u roztroušené sklerózy. *Neurol. pro praxi*. 2016;17(6):407–11.
206. Pavelek Z, Ryška P, Vališ M. Glatiramer acetát a tři kazuistiky. *Med. praxi*. 2016;17(4):250–53.
207. Pavelek Z, Vališ M. Kognitivní deficit u roztroušené sklerózy mozkomíšní. *Neurol. praxi*. 2015;16(6):347–51.
208. Pavelek Z, Vališ M. Postupná eskalační terapie u pacienta s roztroušenou sklerózou mozkomíšní – kazuistika. *Cesk Slov Neurol N*. 2013;76(Suppl. 1):18–21.
209. Penn RD, Kroin JS. Intrathecal baclofen alleviates spinal cord spasticity. *Lancet*. 1984;1:1078.
210. Pepper G, et al. (2016). Zdraví mozku: příručka pro pacienty s roztroušenou sklerózou. <http://www.crestymcr.cz/upload/pages/zdravi-mozku-2016-obfx-h16r9o.pdf>
211. Petajan JH, Gappmaier E, White AT, Spencer MK, MinoL, Hicks RW. Impact of aerobic training on fitness and quality of life in multiple sclerosis. *Ann. Neurol*. 1996;39:432–41.
212. Pilluti LA, Lelli AD, Paulseth JE, Crome M, Jiang BK, Rathbone MP, et al. Effects of 12 weeks of supported treadmill training on functional ability and quality of life in progressive multiple sclerosis: A Pilot Study, *Arch Phys Med Rehabil*. 2011;92(1):31–6.

213. Piřha J, Prymula R. Jaká rizika přináší očkování u pacientů s roztroušenou sklerózou? Mýty a realita. *Med. praxi* 2013;10(6,7):246–50.
214. Polman CH, O'Connor PW, Havrdova E, Hutchinson M, Kappos L, Miller DH, et al. AFFIRM Investigators. A randomized, placebo-controlled trial of natalizumab for relapsing multiple sclerosis. *N Engl J Med.* 2006;354(9):899–910.
215. Polman CH, Reingold SC, Banwell B, Clanet M, Cohen JA, Filippi M, et al. Diagnostic criteria for multiple sclerosis: 2010 revisions to the McDonald criteria. *Ann Neurol.* 2011;69:292–302.
216. Polman CH, Reingold SC, Edan G, Filippi M, Hartung HP, Kappos L et al. Diagnostic criteria for multiple sclerosis: 2005 revisions to the McDonald Criteria. *Ann Neurol.* 2005;58:840–6.
217. Portaccio E, Ghezzi A, Hakiki B, Sturchio A, Martinelli V, Moidola L, et al. MS Study Group of the Italian Neurological Society. Postpartum relapses increase the risk of disability progression in multiple sclerosis: the role of disease modifying drugs. *J Neurol Neurosurg Psychiatry.* 2014;85(8):845–50.
218. Poser CM, Brinar VV. Epilepsy and multiple sclerosis. *Epilepsy Behav.* 2003;4(1):6–12.
219. Poser CM, Paty DW, Schelenberg LC, McDonald WI, Davis FA, Eberd GC, et al. New diagnostic criteria for multiple sclerosis: guidelines for research protocols. *Ann Neurol.* 1983;1:227–31.
220. Preziosi G, Raptis DA, Storrie J, Raeburn A, Fowler CJ, Emmanuel A. Bowel biofeedback treatment in patients with multiple sclerosis and bowel symptoms. *Dis Colon Rectum.* 2011;54:1114–21.
221. PRISMS Study Group. Randomised double-blind placebo-controlled study of interferon beta-1a in relapsing/remitting multiple sclerosis. *Lancet.* 1998;352:1498–504.
222. Prosperini L, Borriello G, De Giglio L, Leonardi L, Barletta V, Pozzilli C. Management of breakthrough disease in patients with multiple sclerosis: when an increasing of Interferon beta dose should be effective? *BMC Neurol.* 2011;11:26.
223. Prosperini L, Saccà F, Cordioli C, Cortese A, Buttari F, Pontecorvo S, et al. Real-world effectiveness of natalizumab and fingolimod compared with self-injectable drugs in non-responders and in treatment-naïve patients with multiple sclerosis. *J Neurol.* 2017;264(2):284–94.
224. Putzki N, Yaldizli O, Mäurer M, Cursiefen S, Kuckert S, Klawe C, et al. Efficacy of natalizumab in second line therapy of relapsing-remitting multiple sclerosis: results from a multi-center study in German speaking countries. *Eur J Neurol.* 2010;17(1):31–7.
225. Quintana FJ, Farez MF, Viglietta V, Iglesias AH, Merbl Y, Izquierdo G, et al. Antigen microarrays identify unique serum autoantibody signatures in clinical and pathologic subtypes of multiple sclerosis. *Proceeding of the national academy of sciences (PNAS).* *Proc Natl Acad Sci U S A.* 2008;105(48):18889–94.
226. Rao SM, Leo GJ, Bernardin L, Unverzagt F. Cognitive dysfunction in multiple sclerosis. I. Frequency, patterns, and prediction. *Neurology.* 1991;41(5):685–91.
227. Rashid W, Miller DH. Recent advances in neuroimaging of multiple sclerosis. *Semin Neurol.* 2008;28(1):46–55.

228. Riccio P, Rossano R. Nutrition facts in multiple sclerosis. *ASN Neuro*. 2015;7(1):1759091414568185.
229. Río J, Rovira A, Tintoré M, Huerga E, Nos C, Tellez N, et al. Relationship between MRI lesion activity and response to IFN-beta in relapsing-remitting multiple sclerosis patients. *Mult Scler*. 2008;14(4):479–84.
230. Río J, Tintoré M, Sastre-Garriga J, Nos C, Castelló J, Tur C, et al. Change in the clinical activity of multiple sclerosis after treatment switch for suboptimal response. *Eur J Neurol*. 2012;19(6):899–904.
231. Rizo MA, Hadjimichael OC, Preningerova J, Vollmer TL. Prevalence and treatment of spasticity reported by multiple sclerosis patients. *Mult Scler*. 2004;10:589–95.
232. Robinson J, Dixon J, Macsween A, Van Schaik P, Martin D. The effects of exergaming on balance, gait, technology acceptance and flow experience in people with multiple sclerosis: a randomized controlled trial. *BMC Sports Sci Med Rehabil*. 2015;7(8). doi: 10.1186/s13102-015-0001-1
233. Robinson J, Dixon J, Macsween A, Van Schaik P, Martin D. The effects of exergaming on balance, gait, technology acceptance and flow experience in people with multiple sclerosis: a randomized controlled trial. *BMC Sports Sci Med Rehabil*. 2015;7:8.
234. Rolak LA, Fleming JO. The differential diagnosis of multiple sclerosis. *Neurologist*. 2007;13(2):57–72.
235. Rosenberg GA, Appenzeller O. Amantadine, fatigue, and multiple sclerosis. *Arch. Neurol*. 1988;45:1104–6.
236. Rossi S, Mataluni G, Codecà C, Fiore S, Buttari F, Musella A, et al. Effects of levetiracetam on chronic pain in multiple sclerosis: results of a pilot, randomized, placebo-controlled study. *Eur J Neurol*. 2009;16:360–66.
237. Rovaris M, Confavreux C, Furlan R, Kappos L, Comi G, Filippi M. Secondary progressive multiple sclerosis: current knowledge and future challenges. *Lancet Neurol*. 2006;5(4):343–54.
238. Rovira À, Wattjes MP, Tintoré M, et al. Evidence-based guidelines: MAGNIMS consensus guidelines on the use of MRI in multiple sclerosis-clinical implementation in the diagnostic process. *Nat Rev Neurol*. 2015;11(8):471–82.
239. Roztroušená skleróza. Wikipedie. (2017). https://www.obrazky.cz/?q=Roztrou%C5%A1en%C3%A1+skler%C3%B3za+%E2%80%93+symptomy#utm_source=search.seznam.cz&utm_medium=link&utm_term=Roztrou%C5%A1en%C3%A1%20skler%C3%B3za%20%E2%80%93%20symptomy&utm_content=lista&id=a062ef3644eaa097
240. RS Kompas. (n.d.). http://www.rskompas.cz/#utm_source=seznam&utm_medium=cpc&utm_campaign=RS+Kompas&utm_content=Roztrou%C5%A1en%C3%A1+skler%C3%B3za?&utm_term=roztrou%C5%A1en%C3%A1+skleroza
241. Rudick RA, Lee JC, Cutter GR, Miller DM, Bourdette D, Weinstock-Guttman B, et al. Disability progression in a clinical trial of relapsing-remitting multiple sclerosis: eight-year follow-up. *Arch Neurol*. 2010;67:1329–35.
242. Rudick RA, Sandrock A. Natalizumab: α 4-integrin antagonist selective adhesion molecule inhibitors for MS. *Expert Rev Neurotherapeutics*. 2004;4:571–80.

243. Sackett DL, Straus, SE, Scott Richardson W, Rosenberg W, Haynes RB. Evidence-Based Medicine, How to practice and teach EBM. 2nd ed. Churchill Livingstone, 2000.
244. Salzer J, Svenningsson A, Sundström P. Neurofilament light as a prognostic marker in multiple sclerosis. *Mult Scler* 2010;16(3):287–92.
245. Santos EC, Yokota M, Dias NF. Multiple sclerosis: study of patients with relapsing-remitting form registered at Minas Gerais Secretary of State for Health. *Arq Neuropsiquiatr*. 2007;65(3B):885–8.
246. Sastre-Garriga J, Vila C, Clissold S, Montalban X. THC and CBD oromucosal spray (Sativex[R]) in the management of spasticity associated with multiple sclerosis. *Expert Rev Neurother*. 2011;11:627–37.
247. Scalfari A, Neuhaus A, Degenhardt A, et al. The natural history of multiple sclerosis: a geographically based study 10: relapses and long-term disability. *Brain*. 2010;133:1914–29.
248. Scott T, Nussbaum P, McConnell H, et al. Measurement of treatment response to sertraline in depressed multiple sclerosis patient using The Carroll Scale. *Neurology Research*. 1996;7:421–2.
249. Sdružení mladých sklerotiků. (2017). <http://www.mladisklerotici.cz/uvod/o-nas/o-sdruzeni/>
250. Sellebjerg F, Barnes D, Filippini G, Midgard R, Montalban X, Rieckmann P, et al. EFNS guideline on treatment of multiple sclerosis relapses: report of an EFNS task force on treatment of multiple sclerosis relapses. *Eur J Neurol*. 2005;12,939–46.
251. Sellebjerg F, Börnsen L, Ammitzbøll C, et al. Defining active progressive multiple sclerosis. *Mult Scler*. 2017;23(13):1727–35.
252. Schneider H, Miller RK. Receptor-mediated uptake and transport of macromolecules in the human placenta. *Int J Dev Biol*. 2010;54(2–3):367–75.
253. Schumacher FA, Beeve GW, Kibler RF, Kurland LT, Kurtzke JF, McDowell F, et al. Problems of experimental trials of therapy in multiple sclerosis: report by the panel on the evaluation of experimental trials in multiple sclerosis. *Ann N Y Acad Sci*. 1965;122:552–68.
254. Schwid SR, Thorpe J, Sharief M, Sandberg-Wollheim M, Rammohan K, Wendt J, et al. EVIDENCE (Evidence of Interferon Dose-Response: European North American Comparative Efficacy) Study Group; University of British Columbia MS/MRI Research Group. Enhanced benefit of increasing interferon beta-1a dose and frequency in relapsing multiple sclerosis: the EVIDENCE Study. *Arch Neurol*. 2005;62(5):785–92.
255. Schwid SR, Petrie MD, Murray R, Leitch J, Bowen J, Alquist A. A randomized controlled study of the acute and chronic effects of cooling therapy for MS. *Neurology*. 2003;60(12):1955–60.
256. Smania N, Picelli A, Munari D, Geroin C, Ianes P, Waldner A, et al. Rehabilitation procedures in the management of spasticity. *Eur J Phys Rehabil Med*. 2010;46:423–38.
257. Smith PA. The tantalizing links between gut microbes and the brain. *Nature*. 2015; 526(7573):312–4.

258. Smolenski C, Muff S, Smolenski-Kautz S. A double-blind comparative trial of new muscle relaxant, tizanidine (DS 103–282), and baclofen in the treatment of chronic spasticity in multiple sclerosis, *Curr Med Res Opin*, 1981;7:374–83.
259. Solaro C, Bricchetto G, Battaglia MA, Messmer Uccelli M, Mancardi GL. Antiepileptic medications in multiple sclerosis: adverse effects in a threeyear follow-up study. *Neurol Sci*. 2005;25:307–10.
260. Soldan SS, Berti R, Salem N, Secchiero P, Flamand L, Calabresi PA, et al. Association of human herpes virus 6 (HHV-6) with multiple sclerosis: increased IgM response to HHV-6 early antigen and detection of serum HHV-6 DNA. *Nat Med*. 1997;3(12):1394–7.
261. Sormani MP, Rio J, Tintore M, et al. Scoring treatment response in patients with relapsing multiple sclerosis. *Mult Scler*. 2013;19:605–12.
262. Sormani MP, Tintorè M, Rovaris M, et al. Will Rogers phenomenon in multiple sclerosis. *Ann Neurol*. 2008;64(4):428–33.
263. Steinman L. Multiple sclerosis: a two-stage disease. *Nature Immunol*. 2001;2(9):762–4.
264. Swinnen E, Beckwee D, Pinte D, Meeusen R, Baeyens P, Kerckhofs E: Treadmill Training in Multiple Sclerosis: Can body weight support or Robot assistance provide added value? A systematic review. *Mult Scler Int*. 2012;2012:240274.
265. Szecsi J, Schlick C, Schiller M, Pollmann W, Koenig N, Straibe A. Functional electrical stimulation – assisted cycling of patients with multiple sclerosis biomechanical and functional outcome – a pilot study. *J Rehabil Med*. 2009;41(8),674–80.
266. Šrámková T. Sexuální poruchy u nemocných s roztroušenou sklerózou mozkomíšni. *Bolest*. 2017;20(2),68–75.
267. Štětkářová I. Mechanismy spasticity a její hodnocení. *Cesk Slov Neurol N*. 2013;76/109(3):267–80.
268. Taláb R. Lékový „switch“ v léčbě roztroušené sklerózy mozkomíšni. *Postgraduální medicína*. 2011;9:1024–9.
269. Taus C, Giuliani G, Pucci E, D’Amico R, Solari A. Amantadine for fatigue in multiple sclerosis. *Cochrane Database Syst Rev*. 2003;(2):CD002818.
270. Taylor D, Paton C, Kapur S. Prescribing guidelines in Psychiatry. 12th ed. West Sussex, United Kingdom: John Wiley & Sons; 2015. p. 741.
271. Taylor MJ, Griffin M. The use of gaming technology for rehabilitation in people with multiple sclerosis. *Mult Scler*. 2015;21(4),355–71.
272. Teunissen CE, Iacobaeus E, Khademi M, et al. Combination of CSF N-acetylaspartate and neurofilaments in multiple sclerosis. *Neurology*. 2009;72(15):1322–9.
273. The Canadian MS Research Group. A randomized controlled trial of amantadin in fatigue associated with multiple sclerosis. *Can. J. Neurol. Sci*. 1987;14:273–8.
274. Thiel S, Langer-Gould A, Rockhoff M, Haghikia A, Queisser-Wahrendorf A, Gold R, Hellwig K. Interferon-beta exposure during first trimester is safe in women with multiple sclerosis – a prospective cohort study from the German multiple sclerosis and pregnancy registry. *Mult Scler*. 2016;22(6):801–9.

275. Thompson AJ, Banwell BL, Barkhof F, Carroll WM, Coetzee T, Comi G, et al. Diagnosis of multiple sclerosis: 2017 revisions of the McDonald criteria. *Lancet Neurol.* 2018;17(2):162–73.
276. Thöne J, Thiel S, Gold R, Hellwig K. Treatment of multiple sclerosis during pregnancy – safety considerations. *Expert Opin Drug Saf.* 2017;16(5):523–34.
277. Tintoré M, Rovira A, Río J, et al. Baseline MRI predicts future attacks and disability in clinically isolated syndromes. *Neurology.* 2006;67(6):968–72.
278. Tintoré M, Rovira A, Río J, Tur C, Pelayo R, Nos C, et al. Do oligoclonal bands add information to MRI in first attacks of multiple sclerosis? *Neurology.* 2008;70(13 Pt 2):1079–83.
279. Tintoré M. Rationale for early intervention with immunomodulatory treatments. *J Neurol.* 2008;255(Suppl. 1):37–43.
280. Tremlett H, Yousefi M, Devonshire V, et al. Impact of multiple sclerosis relapses on progression diminishes with time. *Neurology.* 2009;73:1616–23.
281. Tremlett H, Zhao Y, Rieckmann P, Hutchinson M. New perspectives in the natural history of multiple sclerosis. *Neurology.* 2010;74(24):2004–15.
282. Trojano M, Liguori M, Paolicelli D, Zimatore GB, De Robertis F, Avolio C, et al. Southern Italy MS Group. Interferon beta in relapsing-remitting multiple sclerosis: an independent postmarketing study in southern Italy. *Mult Scler.* 2003;9:451–7.
283. Tsivgoulis G, Katsanos AH, Mavridis D, Grigoriadis N, Dardiotis E, Heliopoulos I, et al. The Efficacy of Natalizumab versus Fingolimod for Patients with Relapsing-Remitting Multiple Sclerosis: A Systematic Review, Indirect Evidence from Randomized Placebo-Controlled Trials and Meta-Analysis of Observational Head-to-Head Trials. *PLoS One.* 2016;11(9):e0163296.
284. Unie Roska. (2017). <http://www.roska.eu/>
285. Vachová M, Dušánková J, Zámečník L. Symptomatická léčba roztroušené sklerózy. *Neurol. pro praxi.* 2008;9(4):226–31.
286. Vachová M. Epidemie roztroušené sklerózy ve světě. *Cesk Slov Neurol N.* 2012;75/108(6):701–6.
287. Vališ M, Masopust J, Urban A, Protopopová-Kalnická D. Roztroušená skleróza mozkomíšní. In Masopust J, Urban A, Vališ M, et al. *Neuropsychiatrické případy.* Praha: Galén; 2011. p. 171–90.
288. Vališ M, Pavelek Z, Masopust J. Únava u roztroušené sklerózy a možnosti jejího ovlivnění. *Med. praxi.* 2016,13(2),75–8.
289. Vališ M, Pavelek Z. Dimethylfumarát – perorální lék v terapii roztroušené sklerózy mozkomíšní. *Farmakoterapie.* 2016;12(4),530–8.
290. Vališ M, Pavelek Z. Ukazatele klinické aktivity roztroušené sklerózy a jejich ovlivnění léčbou. *Neurol. praxi.* 2014;15(suppl. E):4–7.
291. Vališ M, Pavelek Z. Základní diagnostika a léčba roztroušené sklerózy. *Med. praxi.* 2015;12(2):77–82.
292. Vercoulen JHMM, Swanink CMA, Zitman FG, et al. 1996. Randomized, double blind, placebo-controlled study of fluoxetine in chronic fatigue syndrome. *Lancet.* 1996;347:858–61.

293. Villar LM, Sádaba MC, Roldán E, et al. Intrathecal synthesis of oligoclonal IgM against myelin lipids predicts an aggressive disease course in MS. *J Clin Invest*. 2005;115(1):187–94.
294. Vitalion. Roztroušená skleróza. (2017). <https://nemoci.vitalion.cz/roztrousena-skleroza/>
295. Vodáčková D, et al. Krizová intervence. Praha: Portál; 2002.
296. Vogt A, Kappos L, Calabrese P, Stöcklin M, Gschwind L, Opwis K, et al. Working memory training in patients with multiple sclerosis – comparison of two different training schedules. *Restor Neurol Neurosci*. 2009;27(3):225–35.
297. Volná, J. (n.d.). Informace o RS. <http://www.aktivnizivot.cz/informace-o-rs/co-je-rs/ucinek-rs-na-nervove-bunky/>
298. Vukusic S, Confavreux C. Prognostic factors for progression of disability in the secondary progressive phase of multiple sclerosis. *J Neurol Sci*. 2003;206(2):135–7.
299. Vukusic S, Hutchinson M, Hours M, Moreau T, Cortinovis-Tourniaire P, Adeleine P, et al. Pregnancy In Multiple Sclerosis Group. Pregnancy and multiple sclerosis (the PRIMS study): clinical predictors of post-partum relapse. *Brain*. 2004;127(Pt 6):1353–60.
300. Vyhláška č. 505/2006 Sb., kterou se provádějí některá ustanovení zákona o sociálních službách.
301. Waubant E, Vukusic S, Gignoux L, Dubief FD, Achiti I, Blanc S, et al. Clinical characteristics of responders to interferon therapy for relapsing MS. *Neurology*. 2003;61:184–9.
302. Weinshenker B, Bass B, Rice G, et al. The natural history of multiple sclerosis: a geographically based study. 2. Predictive value of the early clinical course. *Brain*. 1989;112(Pt 6):1419–28.
303. Weinshenker BG, O'Brien PC, Petterson TM, Noseworthy JH, Lucchinetti CF, Dodick DW, et al. A randomized trial of plasma exchange in acute central nervous system inflammatory demyelinating disease. *Ann Neurol*. 1999;46(6):878–86.
304. Weinshenker BG, Penman M, Bass B, Ebers GC, Rice GP. A double-blind, randomized, crossover trial of pemoline in fatigue associated with multiple sclerosis. *Neurology*. 1992;42:1468–71.
305. Weinstein A, Schwid SR, Schiffer RB, McDermott MP, Giang DW, Goodman AD. Neuropsychologic status in multiple sclerosis after treatment with glatiramer. *Arch Neurol*. 1999;56(3):319–24.
306. Weinstock-Guttman B, Galetta SL, Giovannoni G, Havrdova E, Hutchinson M, Kappos L, et al. Additional efficacy endpoints from pivotal natalizumab trials in relapsing-remitting MS. *J Neurol*. 2012;259(5):898–905.
307. Williamson EML, Chahin S, Berger JR. Vaccines in multiple sclerosis. *Curr Neurol Neurosci Rep*. 2016;16:36.
308. Wingerchuk DM, Lennon VA, Pittock SJ, Lucchinetti CF, Weinshenker BG. Revised diagnostic criteria for neuromyelitis optica. *Neurology*. 2006;66(10):1485–9.

309. Wucherpfennig KW, Strominger JL. Molecular mimicry in T cell-mediated autoimmunity: viral peptides activate human T cell clones specific for myelin basic protein. *Cell*. 1995;80:695–705.
310. Yaldizli O, Penner IK, Frontzek K, et al. The relationship between total and regional corpus callosum atrophy, cognitive impairment and fatigue in multiple sclerosis patients. *Mult Scler*. 2014;20(3):356–64.
311. Zákon 155/1995 Sb., o důchodovém pojištění.
312. Zákon 329/2011 Sb., o poskytování dávek osobám se zdravotním postižením a o změně souvisejících zákonů.
313. Zákon č. 108/2006 Sb., o sociálních službách.
314. Zdraví Euro. (2011). https://www.za&dcr=0&source=lnms&tbn=isch&sa=X&ved=0ahUKEwjKq7X57PXXAhUNnRQKHeSJDhEQ_AUICigB&biw=1324&bih=662#imgrc=5k8qtc43k8aQCM:&spf=1512579812685
315. Ziemssen T, Schrempf W. Glatiramer acetate: mechanisms of action in multiple sclerosis. *Int Rev Neurobiol*. 2007;79:537–70.