18th MS nurse international workshop
13 September 2016 - London, UK
Overview
Being part of the multidisciplinary team caring for people with MS, nurses are more and more involved in every aspect of MS management. As the MS scenario is constantly changing thanks to technological innovations and therapeutic evolution, nurses seek updated knowledge spanning from diagnosis to treatment of MS, which is the aim of this live educational workshop. The workshop will also address topics of special interest and, in the clinical case session, participants will have the opportunity to discuss with experts specific issues occurring in every day clinical practice.
The 18th EXCEMED CNE-accredited MS Nurse International workshop will be held the day before the opening of ECTRIMS. It enjoys a strong reputation within the MS nurse community.

Learning objectives
By attending this live educational workshop, participants will be able to:
• List the prognostic markers that nurse should evaluate in the early phases of MS in order to develop strategies for personalized care
• Describe the main side effects and monitoring needs specific to each MS drug
• Explain how to manage motor, cognitive and genito-urinary MS complications and incorporate these therapies into plans of care

Target audience
Nurses involved in the treatment of persons with multiple sclerosis.

Chair
Giancarlo Comi
Department of Neurology
Institute of Experimental Neurology
Vita-Salute San Raffaele University
Milan, Italy

Workshop moderators
Roberta Motta
Italian Multiple Sclerosis Society
Rehabilitation Centre
Genoa, Italy

Amy Perrin Ross
Department of Neurosciences
Loyola University Medical Center
Oak Brook, Illinois, USA
(Past President of IOMSN - International Organization of MS Nurses)

This live educational workshop is endorsed by ECTRIMS
(European Committee for Treatment and Research In Multiple Sclerosis).
Continuing medical education
EXCEMED is a non-profit foundation dedicated, since the last four decades, to the development of high-quality medical education programmes all over the world.
EXCEMED adheres to the guidelines and standards of the European Accreditation Council for Continuing Medical Education (EACCME®) which states that continuing medical education must be balanced, independent, objective, and scientifically rigorous.

Continuing nursing education
EXCEMED (www.excemed.org) is accredited by the International Council of Nurses (ICN) to provide the following CNE activity for specialized nurses.
The meeting “18th MS Nurse international workshop” held on 13 September 2016 in London, UK, is designated for a maximum of 6.82 (six/eightytwo) hours of ICN credits (ICNECs).

Accreditation/Credit designation
This continuing nursing education activity is jointly provided by Nurse Practitioners Alternatives (NPA) and EXCEMED.
NPA is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center’s Commission on Accreditation.
This activity has been awarded 6.5 contact hours (1.5 contact hours are in the area of pharmacology).

EXCEMED adheres to the principles of the Good CME Practice group (gCMEp).
General information

This live educational workshop takes place at:
ExCeL Exhibition Centre
Royal Victoria Dock, 1 - Western Gateway
South Gallery
London, UK

Language
The official language of this live educational workshop is English.

CME/CNE Provider
EXCEMED - Excellence in Medical Education
Programme and Relations Manager: Serena Dell’Ariccia
T +39 06 420413 251 - F +39 06 420413 677
serena.dellariccia@excemed.org
Medical Advisor: Doriani Landi
doriani.landii@gmail.com

For any logistic support please contact:
Meridiano Congress International
Senior Project Manager: Sara Guglielmini
T +39 06 88595 211 - F +39 06 88595 234
sara.guglielmini@meridiano.it
Faculty

Giancarlo Comi, MD
Department of Neurology
Institute of Experimental Neurology
Vita-Salute San Raffaele University
Milan, Italy

Anthony Feinstein, MD, PhD
Department of Psychiatry
University of Toronto
Toronto, Canada

Óscar Fernández, MD, PhD
Neuroscience Institute
Service of Neurology
University Regional Hospital "Carlos Haya"
Malaga, Spain

Mark S. Freedman, HBSc, MSc, MD, CSPQ, FANA, FAAN, FRCPC
Multiple Sclerosis Research Unit
The Ottawa Hospital
Ottawa, Canada

Kerstin Hellwig, MD, PhD
Department of Neurology
St. Josef Hospital / Ruhr University
Bochum, Germany

Fred D. Lublin, MD, FAAN, FANA
Corinne Goldsmith Dickinson Center for Multiple Sclerosis
Icahn School of Medicine at Mount Sinai
New York, NY, USA

Roberta Motta
Italian Multiple Sclerosis Society
Rehabilitation Centre
Genoa, Italy

Peter Rieckmann, MD, FRCPC
Bamberg Hospital and University of Erlange
Bamberg, Germany

Miguel Ángel Robles Sánchez
Multiple Sclerosis Neuroimmunology Unit
Biomedical Research Institute of Girona
Girona, Spain

Amy Perrin Ross
Department of Neurosciences
Loyola University Medical Center
Oak Brook, Illinois, USA

Jaume Sastre-Garriga, MD, PhD
Multiple Sclerosis Centre of Catalonia (Cemcat)
Neurology-Neuroimmunology Department
Vall d’Hebron University Hospital
Barcelona, Spain

Antonio Scalfari, MD, PhD
Imperial College London
Division of Experimental Medicine
London, UK

Mar Tintoré, MD, PhD
Multiple Sclerosis Centre of Catalonia (Cemcat)
Neurology-Neuroimmunology Department
Vall d’Hebron University Hospital
Barcelona, Spain
Programme
Tuesday, 13 September 2016

8.45  Opening and introduction  
G. Comi (Italy), R. Motta (Italy), A.P. Ross (USA)

### Session I  The MS Centres organization

9.00  KL: How to optimize operations in an MS Centre  
P. Rieckmann (Germany)

### Session II  Diagnosing and staging MS

9.30  L1: How to diagnose and classify MS  
J. Sastre-Garriga (Spain)

9.50  L2: Prognostic markers and definition of the care plan  
G. Comi (Italy)

10.10  L3: Implementing the care plan  
A.P. Ross (USA)

10.30  L4: Hot topic focus: MS in pediatric population  
M. Tintoré (Spain)

11.00  Discussion

11.10  Coffee break

### Session III  Treating MS

11.30  L5: Landscapes of MS treatment: escalation or induction?  
M.S. Freedman (Canada)

11.50  L6: Efficacy, safety and nursing management of first line drugs  
A.P. Ross (USA)

12.10  L7: Efficacy, safety and nursing management of second line drugs  
M.A. Robles Sánchez (Spain)

12.30  L8: Hot topic focus: Pregnancy in MS women: counseling and management of risks  
K. Hellwig (Germany)

13.00  Discussion

13.10  Lunch

### Session IV  Counteracting MS symptoms by pharmacological and non pharmacological interventions

14.10  L9: Genito-Urinary and sexual dysfunction  
O. Fernández (Spain)

14.30  L10: Spasticity and pain  
F.D. Lublin (USA)

14.50  L11: Nutrition / dysphagia  
R. Motta (Italy)

15.10  L12: Psychiatric and cognitive impairment  
A. Feinstein (Canada)

15.30  Discussion

15.45  MS Nurse club

16.00  Coffee break

### Session V  Everyday issues at a glance: clinical cases

16.20  CC1: Clinical case: the importance of being adherent  
J. Sastre-Garriga (Spain)

16.40  CC2: Clinical case: Somatoform disorder or MS related symptoms?  
A. Scalfari (UK)

17.00  Discussion

17.15  Concluding remarks

End of the live educational workshop

---

**Legend:**  
*KNL*: Key Note Lecture  
*L*: Lecture  
*disc* : Discussion
Disclosure of faculty relationships

EXCEMED adheres to guidelines of the European Accreditation Council for Continuing Medical Education [EACCME®] and all other professional organizations, as applicable, which state that programmes awarding continuing education credits must be balanced, independent, objective and scientifically rigorous. Investigative and other uses for pharmaceutical agents, medical devices and other products (other than those uses indicated in approved product labeling/package insert for the product) may be presented in the programme (which may reflect clinical experience, the professional literature or other clinical sources known to the presenter). We ask all presenters to provide participants with information about relationships with pharmaceutical or medical equipment companies that may have relevance to their lectures. This policy is not intended to exclude faculty who have relationships with such companies; it is only intended to inform participants of any potential conflicts so that participants may form their own judgements, based on full disclosure of the facts. Further, all opinions and recommendations presented during the programme and all programme-related materials neither imply an endorsement nor a recommendation on the part of EXCEMED. All presentations represent solely the independent views of the presenters/authors.

NPA adheres to the standards of commercial support as defined by the American Nurses Credentialing Center’s Commission on Accreditation.

The following faculty provided information regarding significant commercial relationships and/or discussions of investigational or non-EMEA/FDA approved (off-label) uses of drugs:

**Giancarlo Comi**
Declared the receipt of honoraria or consultation fees from: Excemed, Merck, Novartis, Teva, Sanofi, Genzyme, Biogen, Roche, Almirall, Chugai, Receptos, Forward Pharma.

**Anthony Feinstein**
Declared the receipt of speaker honoraria from: Merck-Serono, Biogen, Novartis and Teva, the receipt of grant support from: the MS Society of Canada and the Progressive MS Alliance. He also declared to be working as a consultant work for Genzyme.

**Óscar Fernández**
Declared the receipt of honoraria and consultation fees from: Merck Serono.

**Mark S. Freedman**
Declared the receipt of honoraria or consultation fees from: Actelion, BayerHealthcare, BiogenIdec, Chugai, EMD Canada, Genzyme, Merck Serono, Novartis, Hoffman La-Roche, Sanofi-Aventis, Teva Canada Innovation. He declared to be member of a company advisory board, board of directors or other similar group: Actelion, BayerHealthcare, BiogenIdec, Hoffman La-Roche, Merck Serono, Novartis, Opexa, Sanofi-Aventis and the participation in a company sponsored speaker’s bureau:Genzyme.

**Kerstin Hellwig**
Declared as follows:
- Honoraria: Almirall SA, Bayer Healthcare, Biogen Idec, Genzyme, German Research Foundation, Merck Serono, Novartis, Teva.
- Research grant: Bayer Healthcare, Biogen Idec, Genzyme, German Research Foundation, Merck Serono, Novartis, Teva.
- Speaker bureau: Bayer Healthcare, Biogen Idec, Genzyme, German Research Foundation, Merck Serono, Novartis, Teva.

**Fred D. Lublin**
Declared as follows:
- Sources of Funding for Research: Biogen Idec, Novartis Pharmaceuticals Corp, Teva Neuroscience Inc., Genzyme, Sanofi, Celgene, Transparency Life Sciences, NIH, NMSS.
- Consulting Agreements/Advisory Boards/DSMB: Bayer HealthCare Pharmaceuticals, Biogen Idec, EMD Serono Inc., Novartis, Teva Neuroscience, Actelion, Sanofi/Genzyme, Acorda, Questcor/Malinckrodt, Roche/Genentech, MedImmune, Osmotica, Xenoprot Receptos, Forward Pharma, Akros, TG Therapeutics, Abbvie, Toyama, Amgen, Medday, Atara Biotherapeutics.
- Speaker: Genentech (non-promotional), Genzyme (non-promotional).
- Co-Chief Editor: Multiple Sclerosis and Related Disorders.

**Roberta Motta**
Declared the receipt of honoraria and consultation fees from EXCEMED.
Peter Rieckmann
Declared the receipt of honoraria for lectures from: Allmiral, Apple Healthcare, Baxter, Bayer, Biogenidec, Boehringer-Ingelheim, Cerner, Daiichi Sankyo, Genpharm, Genzyme, Medtronic, Merck-Serono, Novartis, Pfizer, Roche, Sanofi-Aventis, Siemens AG, Teva.
He declared the receipt of research grants from Bayer, EMD-Serono, Novartis, Teva, MS Society of Canada, Canadian Institute of Health Research, Hertie Foundation, Oberfranken-Stiftung, German Neurology Foundation and to be member of Bayer Biogenidec, Novartis, Merck-Serono, Teva, German Multiple Sclerosis Society, Canada Drug Review of Advisory board or steering committee.

Miguel Ángel Robles Sánchez
Declared the receipt of the ECTRIMS Multiple Sclerosis Nurse training fellowship and to be member of a Roche Nurse advisory board.

Jaume Sastre-Garriga
Declared the receipt of grants and contracts from: Genzyme. He declared the receipt of honoraria and consultation fees from: Biogen, Merck, Novartis and Genzyme and to be member of Novartis and Biogen advisory board, board of directors or similar groups.

Mar Tintoré
Declared the receipt of grants and contracts from: Biogen and Novartis. She declared the receipt of honoraria or consultation fees from: Almirall, Bayer, Biogen, Genzyme, Merck Serono, Novartis, Sanofi Aventis, Roche and Teva. She also declared to be member of Biogen Idec, Genzyme, Novartis, Roche and Teva advisory board, board of directors or similar groups.

Financial disclosure information for the following faculty will be presented on site:

Amy Perrin Ross
Antonio Scalfari

NPA reviewers provided the following disclosure of Relevant Financial Relationships for Continuing Professional Education:

Laurie Scudder
Laurie Scudder, DNP, NP, served as nurse planner and reviewer for this activity. She has declared no relevant financial relationships.

The EXCEMED planning committee provided the following disclosure of Relevant Financial Relationships for Continuing Professional Education:

Giulia Anastasia
Declared no relevant financial relationships.

Serena Dell’Ariccia
Declared no relevant financial relationships.

Doriana Landi
Declared no relevant financial relationships.
Organizing MS care in the ambulatory or rehabilitation setting is becoming more a challenge with the increasing multi-disciplinary team. MS nurses play an important role as coordinators, motivators and facilitators of the MS care process. In this presentation, I will provide different examples on the optimization process in MS centres depending on the health care environment, reimbursement situation and availability of medication.
Since the consensus paper by Lublin and Reingold published in Neurology in 1996, which was based on an international survey among neurologists usual terms to define all Multiple Sclerosis clinical phenotypes were: relapsing-remitting Multiple Sclerosis, secondary-progressive Multiple Sclerosis, primary progressive Multiple Sclerosis and progressive relapsing Multiple Sclerosis. The new Multiple Sclerosis classification (The 2013 revisions) includes consideration of disease activity (based on clinical relapse rate and imaging findings) and disease progression, incorporates a new clinical form, the clinically isolated syndrome (CIS) and drops the progressive relapsing phenotype. Patients with no clinical attacks but evidence of Multiple Sclerosis lesions on magnetic resonance scans are now included in the so-called radiologically isolated syndrome category, which has gained wide acceptance, but it is still not considered in the new classification. As for the diagnosis, newer evidence has been gathered in recent years, which is likely to be taken into consideration by the panel recently summoned to elaborate the new diagnostic criteria, including, but not limited to the presence of cortical or juxtacortical lesions, the presence of optic nerve lesions and the number of periventricular lesions to be considered.
L2. Prognostic markers and definition of the care plan

Giancarlo Comi
Department of Neurology, Institute of Experimental Neurology,
Vita-Salute San Raffaele University, Milan, Italy

Abstract not in hand at the time of printing.
Diagnosing and staging MS is a complex process which involves the neurologic exam, patient history and clinical and radiologic evaluations. Based on these results there are some prognostic factors that should be considered moving forward. A care plan is developed including all members of the health care team and patient and family. The role of the MS nurse is one of establishing, continuing and sustaining care over time. Establishing care involves relationship building and open communication. Building trust with the patient and family is vital. Education of the patient and family is key to a successful journey. The nurse can support the patient by explaining the diagnosis, staging and prognostic factors. A care plan should be developed including the patient and family to ensure adherence on agreed upon plans. Continuing care involves ongoing assessment of the disease progress, response to disease modifying therapies and symptom management. Patients are encouraged to develop self-care strategies with a focus on wellness. Sustaining care requires ongoing symptom management as the disease progresses. This often requires adaptation of previously used strategies. The nurse is a key advocate for patient as their lives with MS change over time. The MS nurse is in a unique position to coordinate and implement the care plan for the patient and family.
This presentation will review the challenges of diagnosis and prediction of outcome of children and adolescents with MS. Similarities and differences of clinical characteristics between children and adults, and risk factors used in clinical practice to predict their evolution will be discussed. Current practice for managing MS in this young population will be illustrated with some clinical cases.
Treatment of MS has evolved from a simple choice of immunomodulators to an array of different agents with different mechanisms of action and toxicities. Knowing when to introduce which and at what stage is an evolving science. Do you simply assume that all disease is bad and hit it as hard as you can from the start, risking toxicity? Or do you take a cautious route by starting with the simplest and safest, evaluate response and only escalate to a potentially more toxic and possibly beneficial agent when it is clear that the safer agent is not producing an adequate response? That is essentially what is meant by “induction” vs. “escalation”. There is no exact science to be able to ascertain which patient needs which approach, but evaluating each case individually is a must. There are prognostic factors that can indicate which patient may be at greater risk of early progression, but these too are not accurately predictive. There are merits to both approaches, but if one is too aggressive from the start, patients may suffer unduly from toxicities that might not be warranted for what turns out to be a mild condition. On the other hand, allowing a patient to progress quickly to a stage where current therapies are no longer of benefit is equally as bad. The approach therefore is methodical. First one must weigh in all the information that might indicate the type of MS a patient may display; e.g. multiple early relapses involving motor tracts leaving residual deficits vs. infrequent episodes of numbness with no lasting symptoms. The former might warrant the induction approach, whereas the latter almost certainly would be best treated with the escalation philosophy.

It is also not clear which agents are best for induction vs. escalation. Typically induction agents are aggressive therapies with limited exposure due to toxicity (e.g. chemotherapy agent) vs. escalation agents which offer disease control with minimal toxicity and can be given for many years without risk (e.g. glatiramer acetate). Induction implies hitting hard from the start, then maintaining some form of safer therapy to maintain the induction control. One new agent recently approved for induction approaches in the EU is alemtuzumab, but it is not clear whether a “maintenance” therapy is needed given the durability of the response from a single course of therapy, whereas traditionally we used chemotherapy to induce disease control and usually followed it with an agent that is considered first line for escalation approaches; e.g. interferon-b. When it is deemed escalation is necessary due to sub-optimal treatment responses, is it necessary to maintain the escalated agent? Or can it be introduced for a short period, say a year or two, before backing down to a safer therapy? What are the implications of the “induction” approach? Will exposure to the induction agent create an issue for use of a different agent later on? For example, if a chemotherapy agent is used to induce a response that can be maintained with interferon-b for a number of years pose a risk later should a patient require natalizumab? This issue of treatment “sequencing” is also evolving as a way of exploring which sequences of treatments might offer the best disease control vs. others that may produce greater undue toxicity.

Biomarkers are being pursued to try and indicate which patients have more aggressive disease warranting the induction approach, but they are not yet validated. Regardless, each approach requires close and regular follow-up of patients in order to determine when it might be best to switch therapies in order to achieve a better response.
Treating MS is a complex process which involves the neurologic team, patient and family. There are many complex factors that should be considered moving forward. Over the past 20 years several disease modifying therapies have become available. Several of these are considered first line therapies including interferon beta 1 a and b, Glatiramer Acetate, Teriflunomide, and Dimethyl Fumarate. The role of the MS nurse is one of the education patients and families about the proposed mechanism of action, safety and efficacy. Education of the patient and family is key to successful treatment with DMT’s. The nurse can support the patient by explaining potential side effects and offering tips to manage those side effects. A care plan should be developed including the patient and family to ensure adherence on agreed upon plans. Patients also need to be aware of the difference between DMT side effects and MS symptoms. Patients are encouraged to develop self-care strategies with a focus on wellness. This often requires adaptation of previously used strategies. The nurse is a key advocate for patients as their lives with MS change over time. The MS nurse is in a unique position to educate the patient and family to ensure maximum adherence and optimal outcomes.
The evolution of multiple sclerosis treatment options brings huge benefits to the MS population. Specialist nurses involved in disease modifying drug management pathways play a pivotal role in supporting people with MS.

The purpose of this presentation is the description of the efficacy, safety and nursing management of second line treatments and of the role of MS nurses in navigating shared decision making about MS drugs.

As the landscape of treatment options is continuously expanding, decision making becomes more and more complex. Nurses play a critical role in fostering shared-decision making by helping people with MS and their family to navigate this difficult process offering support and education about risks, benefit and management of MS drugs. Over the last decade the role of the specialist MS nurse has rapidly evolved and it is now recognised as pivotal across the International MS community. The empowered person with MS is now the norm, not the exception, reflecting the powerful contribution of MS nurses world-wide.
During this workshop we will cover the most important reproductive issues associated with the management of patients with multiple sclerosis (MS).

Historically, women with MS were discouraged from becoming pregnant. Nowadays we have reliable data about the course of the disease during and after pregnancy and, in general, patients with MS should not be discouraged from planning a family. While the relapse rate decreases during pregnancy, it increases after birth. Specific questions in diverse situations during patients’ reproductive period arise, especially in the era of expanding therapeutic possibilities. As well as discussing the course of MS during pregnancy and vice versa, this presentation will emphasise the safety aspects of current MS medications during conception/pregnancy and breastfeeding. Finally, breastfeeding and postpartum management will be elucidated.
Multiple sclerosis (MS) is a frequent chronic neurologic disease in young persons. Cause is unknown. Genetic susceptibility plus environmental factors have been involved in the development of this supposedly autoimmune disease.

MS produces multiple lesions along the neuraxis, all neurological systems are affected. A low percent of patients present initially with urologic or sexual complaints, alone or associated with other neurologic symptoms. During the course of the disease the majority of patients develop urinary symptoms (urgency, frequency, urge/incontinence, hesitancy, retention). The severity of these symptoms parallels with the severity of other neurologic symptoms, particularly those due to pyramidal tract involvement. For the majority of MS patients the bladder symptoms are troublesome rather than life threatening, as renal failure attributable to neurogenic bladder dysfunction is uncommon nowadays.

Sexual alterations are also infrequent as an onset symptom, but are frequent along the course of the disease. Erectile dysfunction, reduced libido, delayed or loss of ejaculation and reduced genital sensation are common in males. In females the most common symptoms are reduced libido, orgasmic dysfunction and reduced vaginal lubrication and sensation, causing a negative impact on the quality of life of these patients.

Many of these problems have symptomatic treatment. The treatment is directed to prevent further complications an increase the QoL. Adequate workup and individualised treatment are paramount in the case of genitourinary alterations.

Nowadays, the majority of symptoms can be treated or alleviated with conservative treatments. Expert urological or gynaecological consultation should be used if more aggressive diagnostic or therapeutic measures are needed, if possible in the context of a multidisciplinary team.
Management of the symptoms of MS is as important as treating with a disease-modifying agent and may involve a larger segment of the MS population. No matter what stage the MS is in, there is usually something one can do to improve the quality of life and relieve distress in patients. Of the symptomatic therapies available, those that relieve pain are extremely important. Sixty-three percent of MS patients report having pain. Pain in MS may be neuropathic or result from disuse, weakness, sensory loss or mechanical irregularities. Neuropathic pain can affect any area but most commonly involves the extremities. Trigeminal neuralgia is a less common form of neuropathic pain that occurs in MS. Neuropathic pain is usually managed with an anticonvulsant type medication. Other types of pain should be addressed directly by trying to eliminate the cause of the pain; e.g., bracing of unstable joints.

Spasticity is another important cause of MS symptoms and should be addressed and treated as appropriate. Spasticity treatments consist of physical therapy/stretching/exercises, medications, and devices. One should look for noxious stimuli that may be triggering spasticity, such as urinary tract infections or skin breakdown. Treatment can be tailored to the individuals’ symptoms and needs and should be monitored for effectiveness.

The symptoms discussed here, as with all MS produced symptoms, should be vigorously pursued and treated aggressively to improve the quality of life of all patients. Symptom management can be complementary to disease-modifying therapies.
Multiple sclerosis (MS) is a debilitating neurological disease that affects people in early adulthood. Characteristic pathology of MS has been well described but etiology of the disease is still unknown, despite decades of research and the identification of strong genetics and environmental candidates for susceptibility.

Nutritional status and dietary habits in MS patients have not been extensively studied or reported but patients with MS will suffer from different types of malnutrition which is often unrecognized causing fatigue and worsening the major symptoms. Malnutrition has been associated with impairment of the immune system and with swallowing problems (dysphagia). Swallowing problem are often seen in people with multiple sclerosis. They can occur in the mouth, back of the throat or esophagus. Available research has varying estimates of how often swallowing problems happen in people with multiple sclerosis. The range is from 3% to 51%. People with multiple sclerosis are more likely to develop problems swallowing (dysphagia) as their multiple sclerosis progresses.
Cognitive dysfunction affects 40-60% of people with MS [PwMS] and adversely affects employment, recreational activities and relationships. The most robust MRI metric that correlates with impairment is atrophy, in particular thalamic atrophy. Pharmacologic treatment is generally not helpful whereas cognitive rehabilitation is. Accumulating evidence suggests cognitive remediation can bring about improvement in memory, processing speed and executive dysfunction. Major depression has a lifetime prevalence of 50% in PwMS and is associated with a poor quality of life and suicidal intent. Depression correlates with MRI indices of fronto-temporal atrophy, lesion volume and metrics derived from normal appearing brain tissue. Psychosocial influences in the pathogenesis of depression are important too. Treatment of choice is cognitive behavior therapy. Antidepressant medication, while helpful in reducing symptoms, can come with side effects that are difficult to tolerate. The SSRI and tricyclic medications are, however, very effective in treating pseudobulbar affect, a syndrome of pathological laughter and crying that can affect up to 10% of PwMS.
All EXEMED programmes are organized solely to promote the exchange and dissemination of scientific and medical information. No forms of promotional activities are permitted. There may be presentations discussing investigational uses of various products. These views are the responsibility of the named speakers, and do not represent an endorsement or recommendation on the part of EXEMED. This independent programme is made possible thanks to an educational grant received from Merck KGaA, Darmstadt, Germany.
Improving the patient’s life through medical education
www.excemed.org