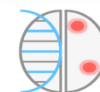




Multiple Sclerosis Research Group
Oslo University Hospital

MS-behandling gjennom 25 år fra ingen behandling til mange alternativer



150 år (1868 – 2018)

Forelesning 1868: Multippel sklerose er en sykdom karakterisert av inflammasjon, demyelinisering og axontap. Ingen kurativ behandling



J.M. Charcot (1825-93)

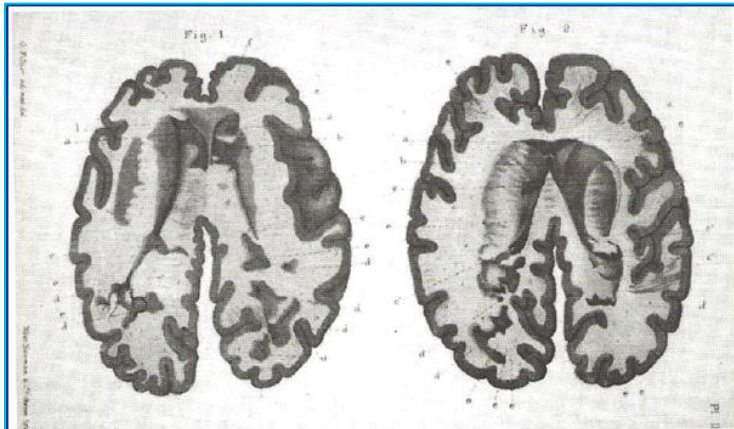
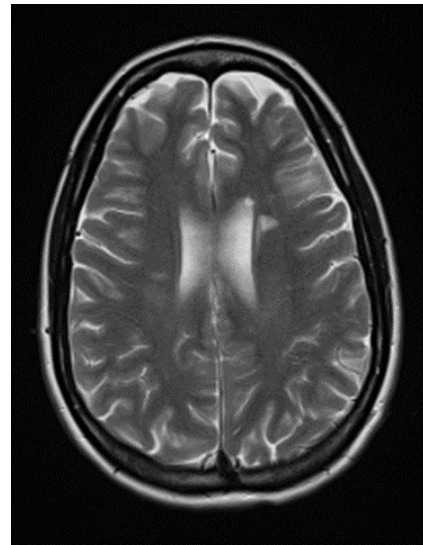


Figure 6.10 Charcot's illustrations of multiple lesions scattered in the white matter of the brain, particularly around the ventricles. From the translation of J-M Charcot's *Lectures on Diseases of the Nervous System* (Plate 2) by the New Sydenham Society, 1881. (Courtesy of the Wellcome Library, London.)



Behandling en gang i tiden

Sir August d'Esté (1794-1848)



1848.
January. Monthly Abstract. Ransgate-

RECEIVED. My Days Walking.	PAID.
Monday January 9. I walk in my Room for 44 -	
Tuesday Jan. 11. I walk in my Room for 43 - $\frac{3}{4}$	
Wednesday January 12. I walk this Day in my Room (Shanks 60) One Hour & 18 - $\frac{1}{4}$ minutes	78 - $\frac{1}{4}$
Thursday January 13. I walk this Day in my Room for -	44 - $\frac{3}{4}$
Friday January 14. I walk this Day in my Room for -	45 - $\frac{1}{4}$
Saturday January 15. I grieve I only walk in my Room	19 - $\frac{3}{4}$
Sunday January 16. I rejoice to have walked in my Room this Day 1 Hour & 6 - $\frac{1}{2}$ minutes	66 - $\frac{1}{4}$
During this Week -	
I walk 5 Hours & 41 - $\frac{3}{4}$ minutes.	
Monday January 17. Not bad! I walk this Day in my Room for	45 - $\frac{3}{4}$
Tuesday January 18. This Day I walk in my Room for	54 - $\frac{3}{4}$
100 - $\frac{1}{4}$	

Dagbok fra januar 1848

Historien om moderne behandling er 25 år

- I 1993 ble den første artikkel publisert om effekt av beta-interferon ved MS
- Betaferon på markedet i Norge i 1997

Neurology, 1993 Apr;43(4):655-61.

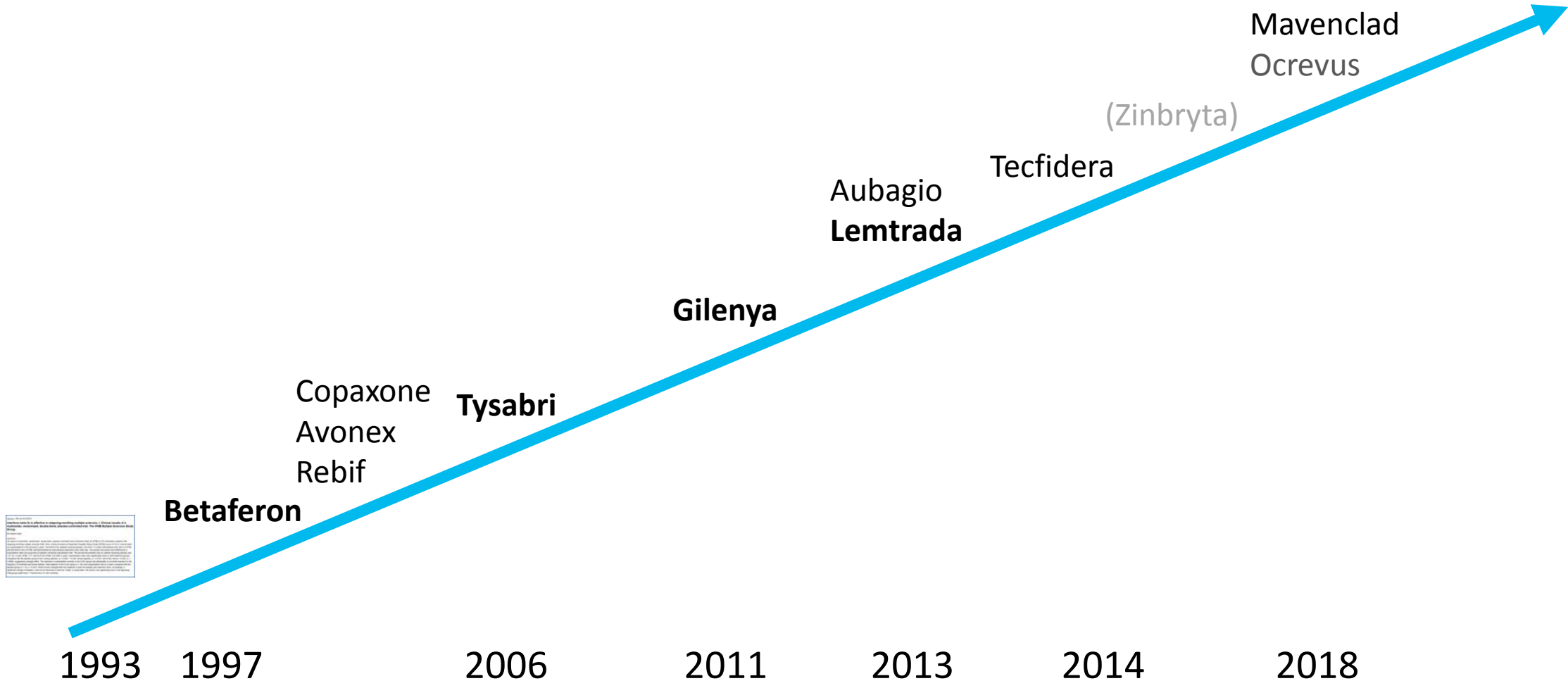
Interferon beta-1b is effective in relapsing-remitting multiple sclerosis. I. Clinical results of a multicenter, randomized, double-blind, placebo-controlled trial. The IFNB Multiple Sclerosis Study Group.

[No authors listed]

Abstract

We report a multicenter, randomized, double-blind, placebo-controlled trial of interferon beta-1b (IFNB) in 372 ambulatory patients with relapsing-remitting multiple sclerosis (MS). Entry criteria included an Expanded Disability Status Scale (EDSS) score of 0 to 5.5 and at least two exacerbations in the previous 2 years. One-third of the patients received placebo, one-third 1.6 million international units (MIU) of IFNB, and one-third 8 MIU of IFNB, self-administered by subcutaneous injections every other day. The primary end points were differences in exacerbation rates and proportion of patients remaining exacerbation-free. The annual exacerbation rate for patients receiving placebo was 1.27; for 1.6 MIU IFNB, 1.17; and for 8 MIU IFNB, 0.84 after 2 years. Exacerbation rates were significantly lower in both treatment groups compared with the placebo group (8 MIU versus placebo, $p = 0.0001$; 1.6 MIU versus placebo, $p = 0.0101$; and 8 MIU versus 1.6 MIU, $p = 0.0086$), suggesting a dosage effect. The reduction in exacerbation severity in the 8 MIU group was attributable to a twofold reduction in the frequency of moderate and severe attacks. More patients in the 8 MIU group ($n = 36$) were exacerbation-free at 2 years compared with the placebo group ($n = 18$; $p = 0.007$). EDSS scores changed little from baseline in both the placebo and treatment arms. Accordingly, a significant change in disability could not be discerned in this trial. Finally, in serial MRIs, MS activity was significantly less in the high-dose IFNB group. (ABSTRACT TRUNCATED AT 250 WORDS).

Mye har skjedd på 25 år

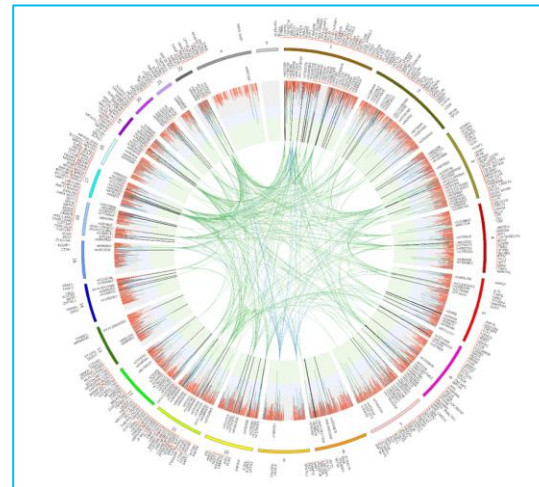


Nye og mer effektive medikamenter

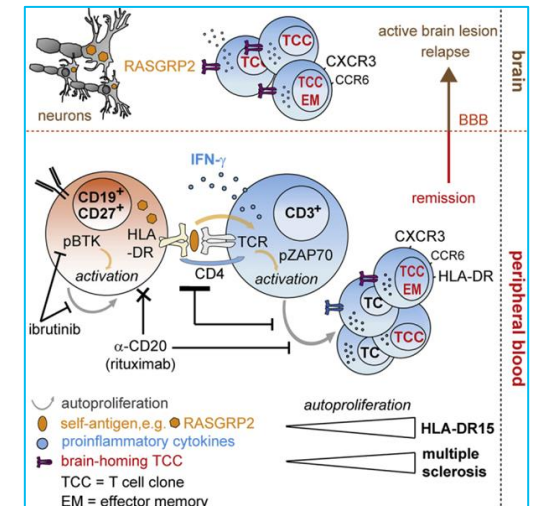
- Økende forståelse for ulike sykdomsmekanismer har bidratt til utvikling av medikamenter
- Effekt og bivirkninger av medikamentene har bidratt til å forstå sykdomsmekanismer



(PubMed)



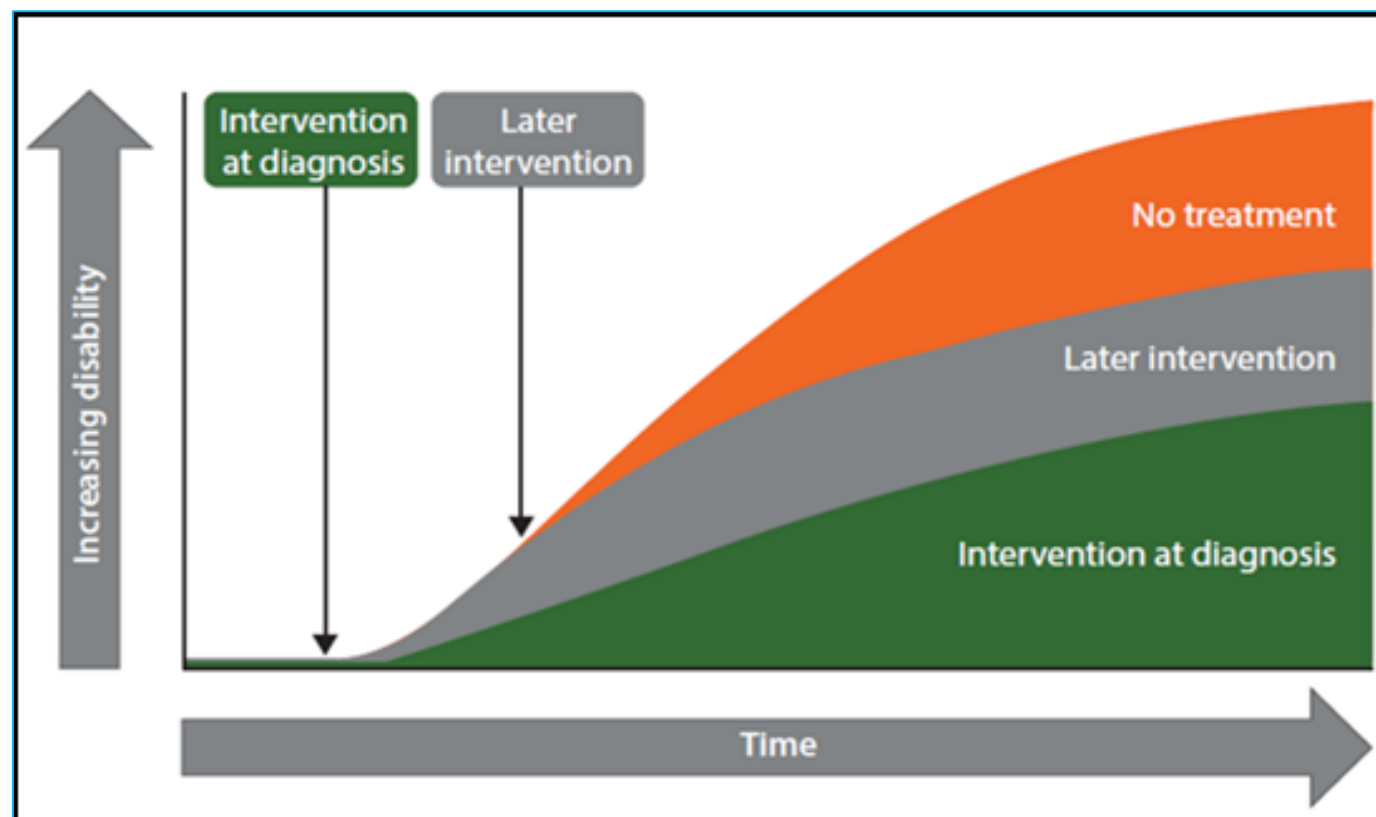
(IMSGC, Cell 2018)



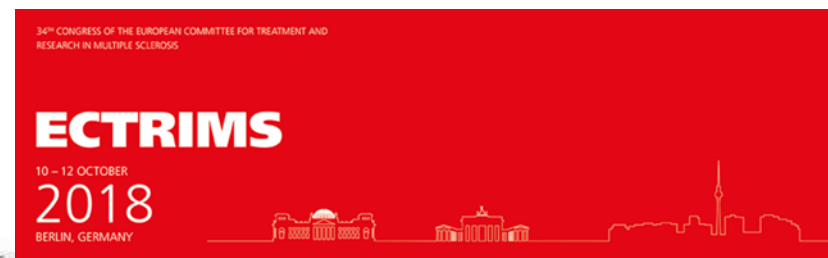
(Jelcic et al, Cell 2018)

Endring i tilnærming til behandling over tid

- Tidligere og mer effektiv behandling
- Terapeutisk vindu
- Persontilpasset
- Biomarkører fortsatt ufullstendige



ECTRIMS 10-12-10.18

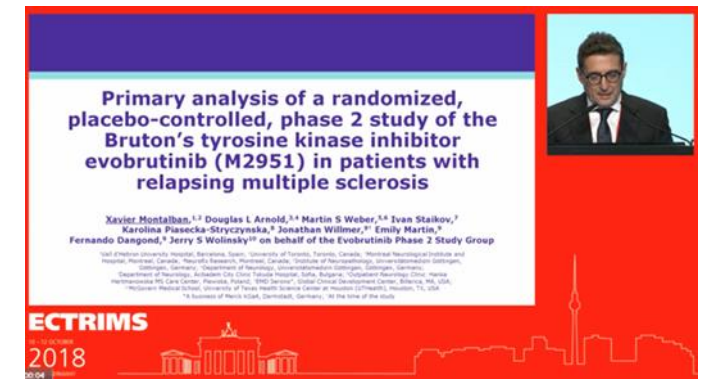


	Hall A	Hall B	Hall C	Hall D	Hall E	Hall F	Hall G	Hall H	Poster Exhibition
8:00		08:00-08:45 Hot Topic 1: Hot Topics in MS		08:00-09:30 Educational Session 1: Pregnancy Management in MS	08:00-09:30 Educational Session 2: Practical treatment recommendations based on new	08:00-09:30 Educational Session 3: Neurofilament light chains in MS: where do we stand, the long	08:00-09:30 Educational Session 5: Impact and management of comorbidities in MS	08:00-09:30 Educational Session 4: Immunology of MS	
9:00		08:55-09:40 Hot Topic 2: Digital MS: Immunologic data	09:00-10:15 Young Scientific Investigators' Session 1: MS and the future	09:00-10:15 Hot Topic 3: Rinsimane and	09:45-10:30 Hot Topic 5: Mechanisms of CNS	09:45-10:30 Case-based Educational Session 6:	09:45-10:30 Case-based Educational Session 7:	09:45-10:30 Case-based Educational Session 8:	
10:00		10:30-11:00 Coffee Break		10:30-11:00 Coffee Break	10:30-11:00 Coffee Break				
11:00	11:00-12:15 Plenary Session 1: Welcome and Opening Remarks								
12:00	12:30-13:30 Satellite Symposium 1: The ABC of Multiple Sclerosis	12:15-13:00 Lunch Break		12:30-13:30 Satellite Symposium 2: The ABC of Multiple Sclerosis	12:15-13:00 Lunch Break			12:15-13:00 Lunch Break	
13:00									
14:00	13:45-14:45 European Charcot Foundation Symposium: Traumatic	13:30-15:00 Scientific Session 1: How real world data can inform treatment decisions	13:30-15:00 Scientific Session 2: Paediatric MS	13:45-15:00 Young Scientific Investigators' Session 2: Immunology/Neurobiology	13:45-15:00 Nurses' Session 1: Digital solutions	13:30-15:00 Educational Session 9: Clinical trials in MS: the need for novelty	13:30-15:00 Educational Session 10 (IMSCOGS): Innovation in MRI in relation to cognitive	13:30-15:00 Educational Session 11: Molecular mechanisms of tissue injury in cortical MS lesions	
15:00		15:00-15:30 Coffee Break			15:00-15:30 Coffee Break			15:00-15:30 Coffee Break	
16:00	15:30-17:00 Scientific Session 3: Risk management with MS therapies	15:30-17:00 Burning Debate: The new McDonald diagnostic criteria are controversial making them difficult to use	15:30-17:00 Scientific Session 4 (IMSCOGS): Cognition in MS	15:30-16:45 Young Scientific Investigators' Session 3: Clinical	15:30-16:45 Nurses' Session 2: MS Nursing around the world	15:30-17:00 Educational Session 12: MS mimicks: other neuro-inflammatory disorders	15:30-17:00 Educational Session 13: Genetics and biomarkers in MS	15:30-17:00 Educational Session 14: Myelin repair in MS	
17:00		17:00-19:00 Poster Session 1			17:00-19:00 Poster Session 1			17:00-19:00 Poster Session 1	17:00-19:00 Poster Session 1
18:00	18:15-19:15 Satellite Symposium 3: Disease pathogenesis	18:15-19:15 Satellite Symposium 4: Immunology							

- 156 inviterede foredrag
- 114 orale presentasjoner
- 1014 poster
- 448 ePostere
- Vel 9800 deltagere fra hele verden

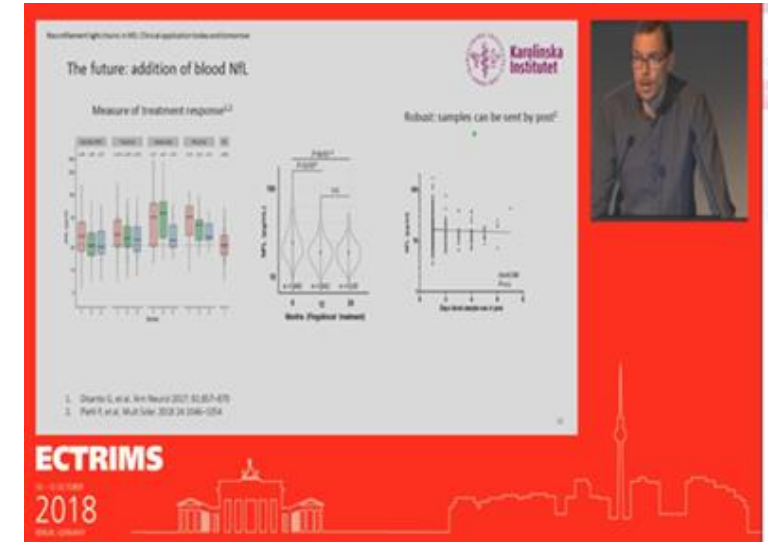
Hovedpunkter ECTRIMS 2018

- Stamcelletransplantasjon
 - Lite data
 - En presentasjon: 20 pasienter med høyaktiv sykdom, initial behandling – gode resultater
- Rituximab
 - Lite data, hovedsakelig svenske presentasjoner og postere
- Nye medikamenter
 - Evobrutinib (TYK2-inhibitor)
 - Fase II studie



Biomarkører – Nevrofilament

- Mulighet for måling i serum
- Sammenheng på gruppenivå med sykdomsaktivitet og nevrodegenerasjon
- Sammenligning av de ulike medikamentene
 - Størst fall etter start behandling for alemtuzumab
- Biomarkør på gruppenivå – kanskje også på individnivå?

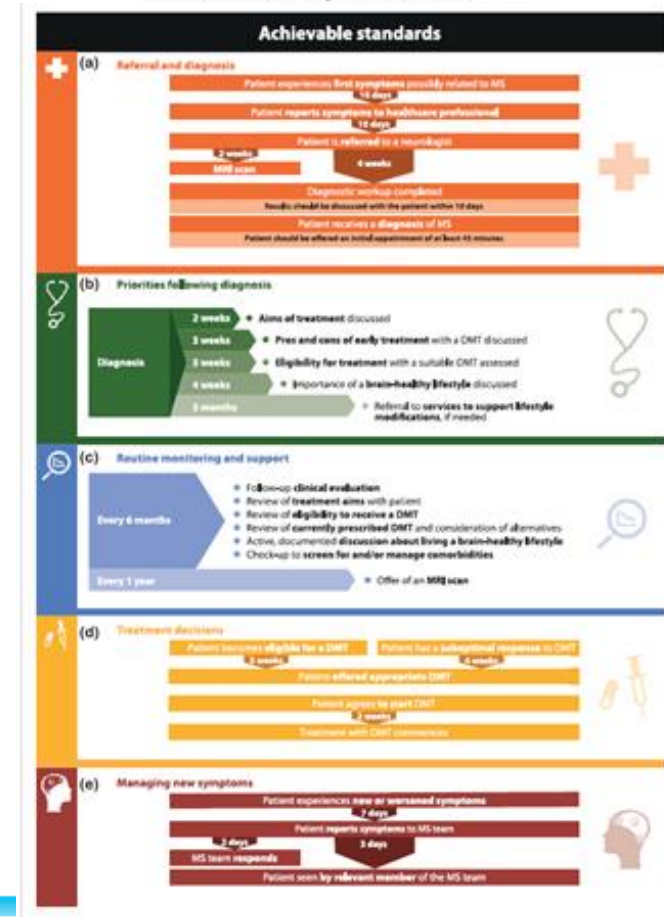


Retningslinjer for behandling og oppfølging

- Nasjonale faglige retningslinjer, Helsedir.
- Europeiske og amerikanske retningslinjer publisert 2017-2018
- Oktober 2018 standard for oppfølging av MS med fokus på hjernehelse publisert
 - Målsetninger for henvisning og diagnostikk
 - Oppstart av behandling
 - Sykdomsmodifiserende
 - Symptomatisk
 - Oppfølging inkludert evaluering av behandling

International consensus on quality standards for brain health-focused care in multiple sclerosis

Jeremy Hobart, Amy Bowen, George Pepper, Harriet Crofts, Lucy Eberhard, Thomas Berger, Alexey Boyko, Cavit Boz, Holmer Botcheva, Elisabeth Galuscan Celius, Jelena Dralovic, José Flores, Dana Horáková, Christine Lebrun-Frény, Ruth Ann Marrie, James Overell, Fredrik Piehl, Peter Vestergaard Rasmussen, Maria José Sá,



Takk for oppmerksomheten!

- Takk for alle bidrag til forskning!
- Vårt mål er å gi best mulig behandling og gjennom forskning å bidra til mer kunnskap og bedre behandling!

