WHAT IS CLAIMED IS:

1. A method of treating multiple sclerosis in a subject comprising administering an effective amount of a CD20 antibody to the subject to provide an initial antibody exposure of about 0.5 to 4 grams followed by a second antibody exposure of about 0.5 to 4 grams, the second exposure not being provided until from about 16 to 60 weeks from the initial exposure, and each of the antibody exposures is provided to the subject as one or two doses of antibody.

2. The method of claim 1 wherein the second exposure is not provided until from about 20 to 30 weeks from the initial exposure.

3. The method of claim 1 or 2 wherein the initial and second antibody exposures are each provided in amounts of about 1.5 to 2.5 grams.

4. The method of any one of claims 2-3 additionally comprising administering to the subject an effective amount of the CD20 antibody to provide a third antibody exposure of about 0.5 to 4 grams, the third exposure not being administered until from about 46 to 60 weeks from the initial exposure.

5. The method of claim 4 wherein the third antibody exposure is provided in an amount of about 1.5 to 2.5 grams.

6. The method of claim 4 or 5 wherein the third exposure is not provided until from about 46 to 54 weeks from the initial exposure.

7. The method of any one of claims 4-6 wherein no further antibody exposure is provided until at least about 70-75 weeks from the initial exposure.

8. The method of claim 1 wherein the second exposure is not provided until from about 46 to 60 weeks from the initial exposure.

9. The method of any one of claims 1-8 wherein each of the antibody exposures is provided to the subject as one dose of antibody.

10. The method of any one of claim 1-8 wherein each of the antibody exposures is provided to the subject as two doses of antibody, wherein the two doses constitute a first dose and a second dose.

11. The method of claim 10 wherein the second dose is administered from about 3-17 days from the time the first dose was administered.

12. The method of claim 11 wherein the second dose is administered from about 6-16 days from the time the first dose was administered.

13. The method of claim 12 wherein the second dose is administered from about 13-16 days from the time the first dose was administered.

14. The method of any one of claims 10-13 wherein the first and second dose of antibody are each about 0.5 to 1.5 grams.

15. The method of any one of claims 10-14 wherein the first and second dose of antibody are each about 0.75 to 1.3 grams.

16. The method of any one of the claims 1-15 wherein three or more antibody exposures are administered to the subject.

17. The method of any one of claims 1-16 wherein four or more antibody exposures are administered to the subject

18. The method of any one of claims 1-17 wherein a second medicament is administered with the initial exposure or later exposures, wherein the CD20 antibody is a first medicament.

19. The method of claim 18 wherein the second medicament is selected from the group consisting of an interferon, glatiramer acetate, a cytotoxic agent, chemotherapeutic agent, mitoxantrone, methotrexate, cyclophosphamide, chlorambucil, azathioprine, gamma globulin, Campath, anti-CD4, cladribine, corticosteroid, mycophenolate mofetil (MMF), cyclosporine, cholesterol-lowering drug of the statin class, estradiol, testosterone, hormone replacement drug, a TNF inhibitor, disease-modifying anti-rheumatic drug (DMARD), non-steroidal anti-inflammatory drug (NSAID), levothyroxine, cyclosporin A, somatastatin analogue, cytokine or cytokine receptor antagonist, anti-metabolite, immunosuppressive agent, integrin antagonist or antibody, LFA-1 antibody, efalizumab, alpha 4 integrin antibody, natalizumab, and another B-cell surface marker antibody.

20. The method of any one of claims 1-19 wherein the multiple sclerosis is relapsing-remitting multiple sclerosis (RRMS).

21. The method of any one of claims 1-19 wherein the multiple sclerosis is primary progressive multiple sclerosis (PPMS).

22. The method of any one of claims 1-21 wherein the subject has never been previously treated with a CD20 antibody.

23. The method of any one of claims 1-22 wherein the antibody is a naked antibody.

24. The method of any one of claims 1-22 wherein the antibody is conjugated with another molecule.

25. The method of claim 24 wherein the other molecule is a cytotoxic agent.

26. The method of any one of claims 1-25 wherein the antibody is administered intravenously.

27. The method of claim 26 wherein the antibody is administered intravenously for each antibody exposure.

28. The method of any one of claims 1-25 wherein the antibody is administered subcutaneously.

29. The method of any one of claims 1-25 wherein the antibody is administered intrathecally.

30. The method of any one of claims 1-29 wherein the CD20 antibody is the only medicament administered to the subject to treat the multiple sclerosis.

31. The method of any one of claims 1-30 wherein the antibody is Rituximab.

32. The method of any one of claims 1-30 wherein the antibody is humanized 2H7 comprising the variable domain sequences in SEQ ID NOS. 2 and 8.

33. The method of any one of claims 1-30 wherein the antibody is humanized 2H7 comprising the variable domain sequences in SEQ ID NOS. 23 and 24.

34. The method of any one of claims 1-34 wherein the subject has elevated anti-myelin basic protein (MBP), anti-myelin oligodendrocyte glycoprotein (MOG), anti-ganglioside and/or or anti-neurofilament antibody level(s).

35. The method of any one of claims 1-34 wherein elevated levels of B cells are present in cerebrospinal fluid (CSF), multiple sclerosis lesion, or serum of the subject.

36. An article of manufacture comprising:

(a) a container comprising a CD20 antibody; and

(b) a package insert with instructions for treating multiple sclerosis in a subject, wherein the instructions indicate that an amount of the antibody is administered to the subject that is effective to provide an initial antibody exposure of about 0.5 to 4 grams followed by a second antibody exposure of about 0.5 to 4 grams, the second exposure not being administered until from about 16 to 60 weeks from the initial exposure, and each of the antibody exposures is provided to the subject as one or two doses of antibody.

37. The article of claim 36 further comprising a container comprising a second medicament, wherein the CD20 antibody is a first medicament, and further comprising instructions on the package insert for treating the subject with the second medicament.

38. The article of claim 37 wherein the second medicament is selected from the group consisting of an interferon, glatiramer acetate, a cytotoxic agent, chemotherapeutic agent, mitoxantrone, methotrexate, cyclophosphamide, chlorambucil, azathioprine, gamma globulin, Campath, anti-CD4, cladribine, corticosteroid, mycophenolate mofetil (MMF), cyclosporine, cholesterol-lowering drug of the statin class, estradiol, testosterone, hormone replacement drug, a TNF inhibitor, disease-modifying anti-rheumatic drug (DMARD), non-steroidal anti-inflammatory drug (NSAID), levothyroxine, cyclosporin A, somatastatin analogue, cytokine or cytokine receptor antagonist, anti-metabolite, immunosuppressive agent, and another B-cell surface marker antibody.

WHAT IS CLAIMED IS:

1. Use of a CD20 antibody in the manufacture of a medicament for treating multiple sclerosis in a subject, wherein the medicament is to be administered to the subject to provide an initial antibody exposure of about 0.5 to 4 grams followed by a second antibody exposure of about 0.5 to 4 grams, the second exposure not being provided until from about 16 to 60 weeks from the initial exposure, and each of the antibody exposures is provided to the subject as one or two doses of antibody.

2. Use of a CD20 antibody in the manufacture of a medicament for treating multiple sclerosis in a subject, wherein the medicament is to be administered to the subject to provide an initial antibody exposure of 0.5 to 4 grams, wherein the initial antibody exposure is provided to the subject as two doses of antibody, wherein the two doses constitute a first dose and a second dose, followed by a second antibody exposure of 0.5 to 4 grams, wherein the second antibody exposure is provided to the subject as one dose of antibody, the second exposure not being provided until from 16 to 60 weeks from the initial exposure.

3. The use of claim 1 or 2, wherein the second exposure is not provided until from about 20 to 30 weeks from the initial exposure.

4. The use of any one of claims 1-3, wherein the initial and second antibody exposures are each provided in amounts of about 1.5 to 2.5 grams.

5. The use of claim 3 or claim 4, wherein an effective amount of the CD20 antibody is to be additionally administered to the subject to provide a third antibody exposure of about 0.5 to 4 grams, the third exposure not being administered until from about 46 to 60 weeks from the initial exposure.

6. The use of claim 5 wherein the third antibody exposure is provided in an amount of about 1.5 to 2.5 grams.

7. The use of claim 5 or claim 6 wherein the third exposure is not provided until from about 46 to 54 weeks from the initial exposure.

8. The use of any one of claims 5 to 7 wherein no further antibody exposure is provided until at least about 70-75 weeks from the initial exposure.

9. The use of claim 1 or claim 2 wherein the second exposure is not provided until from about 46 to 60 weeks from the initial exposure.

10. The use of any one of claims 1 and 3 to 9 wherein each of the antibody exposures is provided to the subject as one dose of antibody.

11. The use of any one of claims 1 and 3 to 9 wherein each of the antibody exposures is provided to the subject as two doses of antibody, wherein the two doses constitute a first dose and a second dose.

12. The use of claim 11 wherein the second dose is to be administered from about 3 to 17 days from the time the first dose was administered.

13. The use of claim 12 wherein the second dose is to be administered from about 6 to 16 days from the time the first dose was administered.

14. The use of claim 13 wherein the second dose is to be administered from about 13 to 16 days from the time the first dose was administered.

15. The use of any one of claims 11 to 14 wherein the first and second dose of antibody are each about 0.5 to 1.5 grams.

16. The use of any one of claims 11 to 15 wherein the first and second dose of antibody are each about 0.75 to 1.3 grams.

17. The use of any one of the claims 1 to 16 wherein three or more antibody exposures are to be administered to the subject.

18. The use of any one of claims 1 to 17 wherein four or more antibody exposures are to be administered to the subject.

19. The use of any one of claims 1 to 18 wherein a second medicament is to be administered with the initial exposure or later exposures, wherein the CD20 antibody is a first medicament.

20. The use of claim 19 wherein the second medicament is selected from the group consisting of an interferon, glatiramer acetate, a cytotoxic agent, chemotherapeutic agent, mitoxantrone, methotrexate, cyclophosphamide, chlorambucil, azathioprine, gamma globulin, Campath, anti-CD4, cladribine, corticosteroid, mycophenolate mofetil (MMF), cyclosporine, cholesterol-lowering drug of the statin class, estradiol, testosterone, hormone replacement drug, a TNF inhibitor, diseasemodifying anti-rheumatic drug (DMARD), non-steroidal anti-inflammatory drug (NSAID), levothyroxine, cyclosporin A, somatastatin analogue, cytokine or cytokine receptor antagonist, antimetabolite, immunosuppressive agent, integrin antagonist or antibody, LFA-1 antibody, efalizumab, alpha 4 integrin antibody, natalizumab, and another B-cell surface marker antibody.

21. The use of any one of claims 1 to 20 wherein the multiple sclerosis is relapsing-remitting multiple sclerosis (RRMS).

22. The use of any one of claims 1 to 20 wherein the multiple sclerosis is primary progressive multiple sclerosis (PPMS).

23. The use of any one of claims 1 to 22 wherein the subject has never been previously treated with a CD20 antibody.

24. The use of any one of claims 1 to 23 wherein the antibody is a naked antibody.

25. The use of any one of claims 1 to 23 wherein the antibody is conjugated with another molecule.

26. The use of claim 25 wherein the other molecule is a cytotoxic agent.

27. The use of any one of claims 1 to 26 wherein the antibody is to be administered intravenously.

28. The use of claim 27 wherein the antibody is to be administered intravenously for each antibody exposure.

29. The use of any one of claims 1 to 26 wherein the antibody is to be administered subcutaneously.

30. The use of any one of claims 1 to 26 wherein the antibody is to be administered intrathecally.

31. The use of any one of claims 1 to 30 wherein the CD20 antibody is the only medicament administered to the subject to treat the multiple sclerosis.

32. The use of any one of claims 1 to 31 wherein the antibody is Rituximab.

33. The use of any one of claims 1 to 31 wherein the antibody is humanized 2H7 comprising the variable domain sequences in SEQ ID NOS. 2 and 8.

34. The use of any one of claims 1 to 31 wherein the antibody is humanized 2H7 comprising the variable domain sequences in SEQ ID NOS. 23 and 24.

35. The use of any one of claims 1 to 34 wherein the subject has elevated anti-myelin basic protein (MBP), anti-myelin oligodendrocyte glycoprotein (MOG), anti-ganglioside and/or or anti-neurofilament antibody level(s).

36. The use of any one of claims 1 to 35 wherein elevated levels of B cells are present in cerebrospinal fluid (CSF), multiple sclerosis lesion, or serum of the subject.

37. An article of manufacture when used according to the use of any one of claims 1 to 36 comprising a container comprising a CD20 antibody.

38. The article of claim 37 further comprising a container comprising a second medicament, wherein the CD20 antibody is a first medicament.

39. The article of claim 38 wherein the second medicament is selected from the group consisting of an interferon, glatiramer acetate, a cytotoxic agent, chemotherapeutic agent, mitoxantrone, methotrexate, cyclophosphamide, chlorambucil, azathioprine, gamma globulin, Campath, anti-CD4, cladribine, corticosteroid, mycophenolate mofetil (MMF), cyclosporine, cholesterol-lowering drug of the statin class, estradiol, testosterone, hormone replacement drug, a TNF inhibitor, diseasemodifying anti-rheumatic drug (DMARD), non-steroidal anti-inflammatory drug (NSAID), levothyroxine, cyclosporin A, somatastatin analogue, cytokine or cytokine receptor antagonist, antimetabolite, immunosuppressive agent, and another B-cell surface marker antibody.