

Supplementary Table 4: Treatment courses in patients with relapsing MOG antibody-associated demyelination

Patient	Number of episodes	No Im mTx	First line immune therapy				Second line immunotherapy			Third line immunotherapy	
			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantrone
Patient 1	3	-	3 courses (IV dex with E1, IV MP 30 mg/kg x 5 for E2 and E3)	Taper over 1.5 months for E1, from 12.5 mg over 6 months for E2, from 15 mg over 14 months and ongoing from E3	-	-	-	-	-	-	-
Patient 2	2	-	2 courses (30 mg/kg x 3 for E1 and x 5 for E2)	Taper over 4 weeks for E1, from 2mg/kg/day over 5 months for E2	-	-	-	-	-	-	-
Patient 3	6	E1-E4	-	Taper over 20 months from 2 mg/kg to 5 mg alt days for E5, taper from 2 mg/kg/day to 5 mg alt days ongoing for E6	-	-	-	-	-	-	-
Patient 4	4	E1	3 courses	Taper over 6	-	-	-	For 20	-	-	-

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
			(30 mg/kg x 5 for E2 and x 3 for E3 and E4)	weeks from 2 mg/kg/day for E1, taper over 7 months from 2mg/kg for E2, taper over 12 months and ongoing from 60 mg once/week to 20 mg twice/week maintenance)				months (200 mg bd then 300 mg bd ongoing) following E2			
Patient 5	2	-	2 courses (15 mg/kg x 5 for E1 and x 4 for E2)	Taper over 4 weeks for E1, and from 20 mg/day over 8 months for E2	-	-	-	-	-	-	-
Patient 6	5	-	All five episodes treated with 30 mg/kg x 3	Taper from 1 mg/kg/day over 6 weeks (E1), 3 months (E2), 3 weeks (E3 and E4), and 25 days (E5)	-	-	-	-	-	-	-
Patient 7	2	-	2 courses	Taper from	1g/kg/day	-	-	-	-	-	-

Patient	Number of episodes	No Im mTx	First line immune therapy				Second line immunotherapy			Third line immunotherapy	
			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
			(30 mg/kg x3 for E1 and E2)	2mg/kg/day over 3 months with E1, from 2mg/kg/day over 2.5 months with E2	once a month for two months after E2						
Patient 8	5	-	3 courses (30 mg/kg x 3 for E2, E3 and E5)	Taper over 3 months for E1 and E2, and over 13 months and ongoing from E3 to present (currently 20 mg alternate days)	1g/kg (45g)/month started after E5, now ongoing for 8 months	-	-	For 6 months following E3 (500 mg bd then 750 mg bd), with 2 breakthrough relapses prompting switch to monthly IVIg	-	-	-
Patient 9	8	-	8 courses (500 mg x	Taper from 25 mg od over 3	Induction IVIg and	-	-	-	-	-	-

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
			5 for E1/E2 /E4/E5/E6 /E7/E8, x 7 for E3)	weeks for E2, from 25 mg od over 1 week for E3 and E4, from 37.5 mg od over 6 months for E5 and E6, from 25 mg od over 5 weeks for E7 and E8	monthly 0.4g/kg maintenance over 189 months starting after E5 - 2 attempts at cessation leading to relapse within 6 and 3 months respectively (E6 and E7)						
Patient 10	5 (on beta-interferon from E4 on for 4 years)	E3	4 courses (20mg/kg/day x 3 for E1, E2, E4, E5)	Taper over 3 weeks for E1, E2, E4, E5	-	-	-	-	-	-	-
Patient 11	3	-	2 courses (15 mg/kg	Taper over 1 month from	-	-	-	-	-	-	-

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
			x 5 for E1 and E2)	2mg/kg/day for E1, taper over 4 months from 2 mg/kg/day to alternate day 10 mg when relapsed for E2, taper over 2.5 months from 2 mg/kg/day for E3							
Patient 12	2	-	15 mg/kg/day x 3 for E1 and x 5 for E2	Taper over 7 weeks from 20 mg od for E1, taper over 4 months from 10 mg od after E2 with E3 occurring at dose of 7.5 mg on alternate days, increased back to 12.5 mg alt days and then	-	-	-	-	-	-	-

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
				tapered over 4 months to cessation							
Patient 13	3	-	IV MP dose and duration uncertain for E1, 20 mg/kg/day x 3 for E3	Tapering over 18 months in total from 10 mg od (attempts to wean below 3 mg and 2 mg resulting in E2 and E3 relapses)	Following E3, 2g/kg for first dose, then 1g/kg/month for 8 months, then every second month for 4 months	-	-	-	-	-	-
Patient 14	4	-	4 courses (30mg/kg x 3 for all E1-E4)	Taper over 4 weeks from 30 mg od for E1, then following E3 taper over 21 months starting 30 mg od when relapsed at 8 months (E4) at dose of 10 mg alt days which	-	-	-	Following E4, 1 g bd for 9 months and ongoing	-	-	-

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
				led to increase to 50 mg od and further taper for another 13 months before cessation							
Patient 15	4	-	3 courses (30 mg/kg/day x 3 for E2-E4)	Taper over 6 weeks from 40 mg od (E1), over 8 weeks each from 20 mg od (E2 and E3), and over 26 months from 40 mg alt days (E4)	Monthly IVIg for 26 months after E4 6g (0.5 g/kg)	-	-	-	-	-	-
Patient 16	3	-	3 courses (30 mg/kg x 3 for E1-E3)	Taper from 2mg/kg/day over 7 weeks for E1, 6 months for E2, then ongoing maintenance after E3, currently at 7.5 mg alt days 23	2g/kg x 2 days	-	-	For 15 months (500 mg od then 360 mg bd) after E2, then ceased	-	-	-

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
				months after E3							
Patient 17	2	-	30mg/kg x 5 for E1 and x 3 for E2	Taper over 16 months from onset (E2 occurred when down to 2.5 mg alt days prompting increasing dose), currently on 10 mg alt days	2g/kg induction dose with E1 then 1g/kg monthly for 16 months	-	-	-	-	-	-
Patient 18	3	E2 (only treated with antiepileptics)	30 mg/kg/day x 3 for E1 and x 5 for E3	Taper over 5 weeks from 40 mg od for E1, from 30 mg od now ongoing taper at 1.5 months post E3	2g/kg dose after E3	-	-	-	-	-	-
Patient 19	2	-	15 mg/kg x 5 for E1 and E2	Taper over 2 weeks for E1, taper from 1 mg/kg/day over 5 months	-	-	-	-	-	-	-

Patient	Number of episodes	No Im mTx	First line immune therapy				Second line immunotherapy			Third line immunotherapy	
			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
				for E2							
Patient 20	5	E1 and E2 only treated with antiepileptics	1g/day x 3 for E3-5	Taper over 10 weeks from 40 mg od for E3 and E4, taper over 4 months from 60 mg od for E5	Monthly IVIg for last 4 months	-	-	-	-	-	-
Patient 21	5	-	20 mg/kg x 3 for E1, 30 mg/kg x 5 for E2 and E3	Taper over 4 weeks from 2mg/kg (40 mg od) for E1, taper over 8 weeks for E2, then ongoing for 15 months	2 g/kg for 2 days for E2 and E3	-	-	After E4, 500 mg bd then increased to 600 mg bd (15 months and ongoing)	-	-	-
Patient 22	2	-	500 mg x 5 for E1, x 3 for E2	Taper over 4 weeks from 2 mg/kg for E1, taper over 4	-	-	-	-	-	-	-

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
				months for E2, taper over 10 weeks for E3							
Patient 23	3		30mg/kg x 3 for E1, 1 g single dose for E3	Taper over 7 weeks from 60 mg od for E1. For E2, started at 60 mg od, with slow wean and relapse prompting increase and continuation of slow taper (now 11 months ongoing at 20 mg on alternate days)	-	-	-	-	-	-	-
Patient 24	2	-	30 mg/kg/day x 5 for E1 and E2	Taper over 3 weeks from 15 mg od for E1, taper over 14 months from 18 mg od for E2	-	-	-	500 mg od for 15 months and ongoing	-	-	-

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
Patient 25	3	E1	x 3 days each for E2 and E3	Taper over 5 months from 25 mg od for E2, ongoing at 4 months for E3	-	-	-	-	-	-	-
Patient 26	2	-	30 mg/kg x 5 for E1 and E2, with second 3 day course for E2	Taper over 3 weeks from 40 mg od for E1, taper over 1 year from 60 mg od for E2	2g/kg over 2 days for E2	-	-	1 g mane 750 mg nocte for 25 months and ongoing	-	-	-
Patient 27	4	E1, E4 (only anti-epile ptics)	1g x 3 for E1 and E2	Taper over 3 weeks from 50 mg od for E2	-	-	-	-	-	-	-
Patient 28	3	-	30mg/kg x 3 for all three episodes	Taper over 5 weeks for E1 and E2, and over 6 weeks for E3 from 50 mg od	1g/kg on one occasion for E2, then induction 2g/kg and	-	-	-	-	redosed 4 times with B cell repopulation; 375 mg/m ² x 4 infusions for fist two	-

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
					monthly for 27 months					courses, and single infusions of 700 mg (as per weight) for third and fourth doses	
Patient 29	4	+ 2 episodes (E3 and E4 – latter treated with β -IFN	30 mg/kg IV MP x 3 for E1,	Initial planned taper over 2 weeks from 50 mg od, but relapse leading to an increase back to 50 mg od and a 5 week taper	-	-	-	-	-	-	-
Patient 30	2	-	30 mg/kg 3 for E1 and E2	Taper over 6 weeks from 50 mg od for E2	-	-	-	-	-	-	-
Patient 31	3	E2	1g/day x 3 for E3	Taper over 2 weeks from 25 mg od for E1, taper over 5 weeks from 50	-	-	-	-	-	1000 mg 2x 7 months after E3 following MOG	-

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantrene
				mg od for E3						antibody positive result	
Patient 32	3		3 day course with each of three episodes	Taper over 6 weeks with E1, over 3 months with E2, and over 6 months with E3 (all starting from 60 mg od)	2g/kg with E1, monthly 1g/kg over 3 months with E2	-	-	+1 g bd for 18 months	-	-	-
Patient 33	2	E1	1g/day x 3	Taper over 12 months from 60 mg od for E2		6 exchanges following E2	12 months of 150 mg od following cyclo	-	-	-	12 months of 100 mg od of cyclophosphamide following E2 (concurrent with steroids)
Patient 34	5	E1 and E2	1 g/day x 5 E1-E3	one short taper (over 1 month), and then 37 months of tapered steroids (from 80 mg down to	-	monthly for 10 months after E4, and then again for 14 months	-	1 g bd for 37 months	-	+ 3 courses over 24 months (first course 1 g x 2 infusions, second course 1 g resulting in	-

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
				7.5 mg od)		after E5				anaphylaxis thus treatment ceased, third course 1g following desensitization protocol)	
Patient 35	2	E1	1g/day x3 for E2	-	-	-	-	-	-	-	-
Patient 36	10	E4-E7	+ 1 course of IV MP 1g/day x 5 for E1	Taper over 2 weeks from 100 mg (E1), and 5 episodes of oral taper from 50 mg to cessation over 1-2 months each	-	-	-	-	-	-	-
Patient 37	2	-	1 g x3 for E1 and E2	-	-	-	-	-	-	-	-
Patient 38	4	-	1g x 3 E1, x 5 days for E2 and E4	Taper over 10.5 months from 70 mg to 10 mg for E2;	-	5 exchanges for E2		500 mg bd after E2, increase	-	commenced after E4, 2 doses 2 weeks apart,	-

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Patient 41	3	-	1g x 3 for E1-E3	Taper over 20 months from 70 mg od to 5 mg od with increased doses at relapses	-	-	-	-	-	-	-
Patient 42	2	E1	-	Taper over 3 weeks from 50 mg od for E2, taper over 10 days from 50 md od for E3	-	-	-	-	-	-	-
Patient 43	2	-	1g/day x 3 for E1	Taper over 3.5 months from 50 mg od with relapse at 5 mg od prompting increase to 10mg od which he continued on for 12 months (ongoing at latest follow up)	-	-	25 mg bd and increasing to 2mg/kg in divided daily doses (TPMT heterozygote), ceased in 1	-	-	-	-

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
							month secondary to intolerance				
Patient 44	10	E1-3 and E8	1g/day x5 (E5) and x 3 (E6, E8, E10)	Taper over 6 weeks from 25 mg od	-	-	-	-	-	+ 1000 mg and 500 mg IV 2 weeks apart with 10 th episode	-
Patient 45	2	E1 and E2	-	-	-	-	-	-	-	-	-
Patient 46	4	1	+ 2 courses x 3 days each (E1 and E2)	Taper over 3 months from 75 mg od then slow wean over 6 months after E3	-	+ 5 exchanges in one week for E3	Commenced after E3, ceased secondary to intolerance and started MMF instead	1 g bd for 33 months (ceased as relapse free and planning pregnancy)	-	-	-
Patient 47	2	-	1g/day x 3 days E1 and E2	Taper over one month from 60 mg for E1,	-	-	-	-	-	-	-

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantro-ne
Patient 52	2	-	1g/day x 5 (E1 and E2)	-	+ 6 weekly IVIg (27.5 g/month) increased in frequency to 4 weekly on second episode of UON (over 60 months as treated for pre-existing autoimmune encephalitis; 36 months for ON)	-	-	-	-	-	-
Patient 53	6	E1 and E2	1g/day x 3 (E4-6)	Taper over one month from 75 mg od (E3,5,	-	-	-	-	-	-	-

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				and 6), and over 5 days for E4							
Patient 54	2	E1 and E2	-	-	-	-	-	-	-	-	-
Patient 55	2		1g/day x 3 for E1 and E2	Taper over 10 days from 50 mg od for E1; E2 treated with 50 mg od with slow taper over 15.5 months and maintenance 3 mg po od	-	-	-	-	-	-	-
Patient 56	3	-	1g/day x 5 for E1, x 3 for E2, and pulsed with mitoxantrone once a month	-	-	-	100 mg od started after E3 (ongoing therapy for 47 months)	-	-	-	20 mg IV mitoxantrone monthly for 3 months (with pulsed IV MP) after E3

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			IV MP	Tapering oral prednisone	IVIg	PLEX	AZT	MMF	MTX	Rituximab	Cyclophosphamide or mitoxantrone
			for 3 months after E3								
Patient 57	6	-	1g/day x 5 (E1-3); then for 40 months had a monthly IV pulse (300g to 1g/month)	2 relapses on attempts to taper oral prednisone so continued with slow taper for 10 months prior to cessation	-	5 exchanges with E2	200 mg od (reduced to 150 mg od due to nausea) for 34 months, then changed to MMF due to ongoing relapses	500 mg bd maintenance 6 months and ongoing	-	-	5 pulses over 9 months; month 1 500 mg/m ² , month 2 750 mg/m ² , month 3/6/9 1g/m ²
Patient 58	5	-	1g/day x 3 E1-E5	Taper over 3 months from 60 mg od for E1, taper over 6 months from 60 mg od to 10 mg od for E2, maintained at	-	-	-	500 mg bd commenced after E5, increased to 1500 mg bd	10 mg weekly commenced after E2, and continued for 6 months with 2	1000 mg x 2 infusions after E4, with further relapse 8 months later	-

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				10 mg od over 9 months until E5, then increased to 25 mg od following E5 and maintained on this for last 5 months				and maintained on this for last 4 months	further relapses prompting switch to RTX		
Patient 59	4	E2	1g/day x 3 days for E1, E3, and E4	Taper over 2 weeks from 50 mg for E1 and E3, and one slow oral wean over 6 months for E4	-	-	-	500 mg bd commenced after E4 and ongoing now for 6 months	-	-	-

AZT azathioprine; ImmTx immunotherapy; IVIg intravenous immunoglobulin; IV MP intravenous methylprednisolone; MMF mycophenolate mofetil; MTX methotrexate; PLEX plasma exchange/ plasmapheresis