

Monitoring time & cost burden of disease-modifying therapies on MS services

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Objectives

- Illustrate the burden of disease-modifying therapy (DMT) monitoring in England
- Data gathering to inform how DMT administration can be more appropriately resourced

Aim of monitoring is to minimise risk

- 11 DMTs with different monitoring schedules
- Increasing choice for patients and clinicians
- Increased effectiveness vs. increased risk

BUT:

- Activity currently not commissioned or funded
- Burden borne by MS service and usually MS nurse specialists (MSNS)

Issues

- **Finance:** Activity currently not commissioned or funded
- **Variation:** Multiple service models: spreadsheets, EPR, pharma-funded, DAWN, CCG shared care
- **Workforce:** Impacts on MSNS and pharmacy role reducing patient-facing activity; time burden
- **Systems:** More than one pathology computer system; interpretation of results

Where did the numbers come from?

- 12 months anonymised Blueteq cost data: total spend on each DMT
- Costs divided by published cost of each DMT
- Estimate of number of patients treated (rounded down)
- 5 year DMT blood monitoring estimate
- Caveats: analysis does not take into account that drug may be stopped; different monitoring regime if blood results abnormal; assumes 10% growth in prescriptions of all DMTs except interferons

Size of the burden

DMT	Year 1		Year 2		Year 3		Year 4		Year 5	
	No. of patients on DMT	No. blood tests	No. of patients on DMT	No. blood tests	No. of patients on DMT	No. blood tests	No. of patients on DMT	No. blood tests	No. of patients on DMT	No. blood tests
Alemtuzumab	2,046	24,549	2,250	27,004	2,475	29,704	2,723	35,645	2,995	39,210
DMF	3,542	17,710	3,896	15,939	4,286	17,533	4,714	21,000	5,186	23,101
Fingolimod	2,271	13,628	2,498	6,360	2,748	6,496	3,023	7,695	3,325	8,465
Interferon	5,508	11,015	5,508	11,015	5,508	11,015	5,508	11,015	5,508	11,015
Natalizumab	4,069	8,139	4,476	9,767	4,924	9,848	5,416	11,817	5,958	12,999
Teriflunomide	513	7,175	564	4,100	620	5,525	682	4,961	750	5,457
GA	2,761	2,761	3,037	3,313	3,341	3,341	3,675	4,009	4,042	4,410
Total	20,709	84,977	22,229	77,497	23,902	83,462	25,741	96,14	27,764	104,656
Phlebotomy & lab tariffs	£350,954		£320,064		£344,697		£397,072		£432,230	

Table uses 12-month Blueteq data showing spend on each of the drugs. This data is used to approximate how many patients were prescribed DMT and how many individual tests were required.

Cost burden

	Year 1		Year 2	
	MSNS only	MSNS + admin	MSNS only	MSNS + admin
Normal bloods	£1,161,717	£682,958	£947,118	£556,798
Abnormal bloods	£129,080	£75,884	£117,718	£69,205
Total bloods	£1,290,797	£758,843	£1,064,837	£626,004

- Based on one community MS service time study
- MSNS only – time spent on associated tasks: Band 7 (top) hourly rates applied
- MSNS + admin – time spent on associated tasks divided between admin resource (top Band 4) and MSNS (top band 7); hourly rates applied

Time burden

A time burden calculator resource will be available which estimates the total hours required based on the number of patients who need to have their bloods tested every month. A time study from one community MS service showed that the process of blood monitoring for 50 patients in a month required 26.67 hours in total.

Issues and risks

- Single MSNS – holidays, sickness, time away
- Uncertainty – have abnormal results been acted upon?
- Absent neurologist
- DMT choice based on monitoring burden
- Patient complaints if drug not prescribed
- Relying on goodwill of other staff
- Transport of bloods to lab in time
- Personnel changes
- Extra costs for urgent homecare deliveries
- Block contracts
- Generics/biosimilars

What does the future hold? How do we future-proof?

- National overview
- Commissioning toolkit
- Getting It Right First Time (GIRFT)
- Burden calculation tool – time, numbers, cost
- Service models
- Business case

