OBJECTIVES

- Rituximab is an anti-CD20 monoclonal antibody. Its off-label use has increased in the management of a variety of Neurologic diseases.
- The purpose is to describe rituximab prescriptions in Neurology department, and evaluate the scientific evidence in off-label indications to rationalize its use.

MATERIAL AND METHODS

- Retrospective observational study including all Neurology patients under rituximab treatment between January-2012 to September-2017.
- Analysis: clinical histories, dispensations and Neurologic Day Hospital administrations
- Data: demographic (sex and age), clinical (indication), therapy related (dose, posology, previous treatments and adverse events) and economical (annual cost).
- ‘The Oxford 2011 Levels of Evidence (LE)’ was used to categorize evidence.

RESULTS

- 39 patients: 61.5% women, average age 45.5±12.0 years.
- Dosage regimen: 500-1000mg on first month (days 1 and 15, repeated six months later) and maintaining dose of 500-1000mg each 6-12 months.
- 100% off label indications.

INDICATIONS AND LEVEL OF EVIDENCE

- Relapsing-Remitting Multiple Sclerosis (RRMS): LE 2
- Primary/Secondary Progressive Multiple Sclerosis (PMS): LE 2
- Optic Neuromyelitis (ONM): LE 4
- Optic Neuritis (ON): LE none
- Isolated Central Nervous System Vasculitis: LE none
- Clippets Syndrome: LE none
- Chronic Progressive Dorsal Myelopathy: LE none
- Pseudotumoral Inflammatory Demyelinating Disease: LE none

- 4 patients (10.2%) suffered infusion-related reactions; 14 infections (21.4% respiratory, 21.4% urinary, 7.1% dermic and 7.1% viral) and 1 case of breast cancer were reported.
- The average cost per patient: 6.366€ during first year, and 2.546€ each following year. 39% of this cost was spent in treating pathologies in which rituximab has shown poor evidence.

CONCLUSIONS

- Off-label rituximab is extendedly used in neurological pathologies with no strong evidence. As many adverse events have been observed, close monitoring of patients is suggested. The high economic impact makes necessary to rationalize rituximab prescription and optimise efficiency of sanitary resources.