

## OP45 Biological Drugs And Rheumatoid Arthritis In Brazil: An Overview

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**Introduction.** The Brazilian Unified Health System (SUS) is known worldwide for ensuring universal assistance to citizens, which includes the supply of medicines free of charge. Biological drugs consume about 40 percent of the public budget for pharmaceutical services in the SUS and Rheumatoid Arthritis (RA) is the largest consumer of these resources, serving about 110,000 patients. Since 2002 there has been a clinical guideline for the care of patients with rheumatoid arthritis in Brazil, currently providing 10 biological drugs for treatment of RA. The objective of this study is to present data about the provision, expenditure and profile of users of biological drugs for rheumatoid arthritis in SUS.

**Methods.** Retrospective and exploratory study, using administrative data regarding the purchase and consumption of biological drugs Infliximab, Etanercept, Adalimumab, Rituximab, Abatacept (intravenous and subcutaneous), Tocilizumab, Golimumab and Certolizumab pegol for the treatment of RA between 2012 and 2017 in SUS.

**Results.** There was an expenditure of approximately USD 421.7 million from the Brazilian Ministry of Health with the supply of about 2 million pharmaceutical units of biological drugs for treatment of rheumatoid arthritis, 79 percent of them destined for female users and 89.2 percent for the 40-69 age group. The M05.8 and M.06.0 codes of the International Classification of Diseases (ICD-10) were the most prevalent among the arthritic population served. Adalimumab and Etanercept accounted for 68.3 percent of total expenditure. A reduction in the use of these medicines were observed after the availability of new drugs for the treatment of the disease between 2014 and 2017.

**Conclusions.** Brazil is one of the largest consumers of biological medicines in the world. The use of real-life data allows monitoring trends and costs of the use of these drugs as well as changes with the entry of new therapies and biosimilar medicines.

## OP47 Need For New Thrombectomy Centers? A Practical Decision Framework

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**Introduction.** Stroke is a major contributor to mortality, disability and long-term use of healthcare services. As for all chronodependant conditions, clinical results are associated with timely access to appropriate care. Thrombectomy (EVT) is an effective treatment for large vessel occlusions, but can only be provided in highly-specialized centers by experienced personnel. We sought to develop a framework to aid decision-making on the appropriateness of opening new EVT centers in Québec, Canada.

**Methods.** Data sources included provincial administrative health-care databases, population density statistics, field evaluation of Québec's four existing EVT care networks, and literature review concerning structural and performance criteria for EVT centers. We consulted EVT clinical teams, interdisciplinary stroke experts, patients, professional association representatives, healthcare managers and decision-makers.

**Results.** Access to EVT is suboptimal in all 17 regions of Québec, with virtually no access in remote areas. Results of key performance indicators indicated favorable treatment delays after arrival at the EVT center. However, door-to-needle and door-in-door-out times were long for patients transferred from non-EVT centers. High use of ambulances indicated the potential to transport patients to the most appropriate center. In light of 'real world' results and other sources of information, the need for a new EVT center should consider the following criteria: sub-optimal EVT access within the region; transport time to an existing EVT center >1 hour; expected patient volume within 2 hours of transport; impact on volume of existing programs; availability of long-term financial support; availability of a critical mass of neurointerventionists, vascular neurologists, and neurosurgeons; demonstrated quality of stroke care; and, presence of a stroke unit.

**Conclusions.** The triangulation of literature, clinician experience and the Québec context enriched the evaluation process. Furthermore, this facilitated the development of a framework that was broadly applicable across regions to the real-world setting of decision-making in a complex system of care.

## OP48 Nursing Requirements In Long-Term Care: A Health Technology Assessment

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**Introduction.** The objectives of this study were to systematically review published research on the relationship between nursing staff coverage, care hours, and quality of care (QoC) in long-term care (LTC) facilities; and to conduct a real world evidence (RWE) analysis using Alberta real world data (RWD) to inform policy makers on whether any amendments could be made to current regulations.

**Methods.** A systematic review (SR) of research evidence published between January 2000 and May 2018 on the relationship between nursing staff coverage, care hours, and QoC in LTC facilities was conducted. Panel data regressions using available RWD from Alberta, Canada, were performed to assess associations between nursing care hours and LTC outcomes. Outcomes of interest included quality indicators related to resident outcomes, hospital admissions, emergency room visits and family satisfaction. Nursing care hours considered in SR and RWE analysis included those provided by registered nurses (RNs) and licensed practical nurses (LPNs).

**Results.** The SR found inconsistent and poor quality evidence relevant to the questions of interest, indicating a great uncertainty about the association between nursing staff time and type of coverage and QoC. Although some positive indications were suggested, major weaknesses of reviewed studies limited interpretation of SR results. RWE analysis found that impact of care hours on LTC outcomes was heterogeneous, dependent on outcome measurements.