Assessing the Use of Rituximab in Hospitalized Neuroscience Patients: a Retrospective Analysis
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**Background and Objectives**
1. There is no current FDA indication for the use of rituximab in autoimmune neurological disorders
2. A growing body of literature supports the use for rituximab in Multiple Sclerosis, Myasthenia Gravis, Neuromyelitis Optica and related conditions

**Objectives:**
1. To assess rituximab utilization in hospitalized neuroscience patients
2. To utilize retrospective and clinical trial data to create a protocol for rituximab use in patients admitted to University Hospital with neurological based indications

**Methods and Study Design**
- **Design:** Single-center, retrospective, descriptive study
- **University of Utah Data Resource Center:**
  - Search criteria: Age, gender, admission date, discharge date, admit unit, medical service, and admit diagnosis
- **Electronic medical record review:** Screen by indication, dose and frequency of rituximab infusion

**Patient Demographics**
1. Patients admitted to the University of Utah Hospital between 2008 – 2014
2. Patients ≥18 years of age
3. Patients with ICD-9 codes for:
   - Anti-MAG Neuropathy, Autoimmune Encephalitis, Chronic Inflammatory Demyelinating Polyneuropathy, Dermatomyositis, Guillain-Barré Syndrome, Multifocal Motor Neuropathy, Multiple Sclerosis, Myasthenia Gravis, and Neuromyelitis Optica

**Results**
- **Total number of patients receiving rituximab for neurological indications:** 7
- **Total number of doses of rituximab given between 2008 and 2014:** 8
- **Age Range:** 26 – 86 years
- **Gender:** 1 Male, 6 Females

**Protocol Development**
1. Compare retrospective data with available clinical data
2. Monitor and review current and past use of rituximab in an inpatient setting for autoimmune neurological disorders
3. Create guidelines to promote the appropriate utilization of rituximab for hospitalized neuroscience patients
4. Establish parameters for appropriate dosage, administration and monitoring of rituximab

**Benefits**
1. Establish an evidence based protocol for appropriate use in neurological disorders
2. Ensure appropriate dosing and administration
3. Maximize clinical outcome
4. Conserve medical resources
5. Provide education on appropriate use

**References**
- Kosmidis ML and Dalakas MC: Practical Consideration on the use of rituximab in Autoimmune Neurological Disorders. Ther Adv Neurol Disord. 2010 3(2) 93-103
- Holsopple, M. Medication Use Evaluation: Rituximab – Indication Focused Completed 2013, University of Utah, Drug Information Services, Salt Lake City, Utah

Jessica Carey and Benson Sederholm, PharmD: nothing to disclose