Clinical pharmacists are uniquely positioned to improve the care of patients with multiple sclerosis (MS). As valued members of an interdisciplinary MS care team, clinical pharmacists have moved beyond the role of dispensing medications within the traditional speciality pharmacy model to being directly involved in advancing the care of patients with MS.

There are opportunities for the expansion of the role of a clinical pharmacist in the care of patients with MS. The purpose of this research is to utilize survey responses from providers in MS clinics across the country to identify key activities of clinical pharmacists within clinics and to validate the importance of having a pharmacist included in the MS care team.

**Objectives**

- Outline the areas of care in which pharmacist are involved at MS centers
- Identify the perceived value of the pharmacist in the care of patients with MS through the ranking of key activities by multiple providers in different disciplines
- Identify areas where pharmacist utility can be increased in the clinical management of patients with MS

**Methods**

- An anonymous web-based survey was emailed to fifty MS centers identified through the Consortium of Multiple Sclerosis Centers (CMSC)
- Two separate surveys were created for non-pharmacist providers (MD, PA, NP, RN, PT, OT, LSW) and pharmacist providers (PharmD or RPh)
- The survey was open from March - April 2017 and collected insights on clinical pharmacist involvement in the MS clinic, rankings of the key activities, demographic information, and opportunities for role expansion
- IRB approval was granted at each of the three institutions

**Results**

**Rankings of clinical pharmacists activities in an MS clinic**

<table>
<thead>
<tr>
<th>Non-pharmacists (n=27)</th>
<th>Pharmacists (n=4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents:</td>
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</tr>
<tr>
<td>o Physician (MD)</td>
<td>o PGY1 trained n=2</td>
</tr>
<tr>
<td>n=10</td>
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</tr>
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<td>o Nurse practitioner (NP) n=4</td>
<td>o Board certifications: pharmacotherapy (n=2), ambulatory care (n=1), MS certified specialist (n=1)</td>
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<tr>
<td>o Physician assistant (PA) n=3</td>
<td>Percentage of time dedicated to the MS care team is between 20-60%</td>
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<tr>
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<td>Number of years working as part of MS care team: 1-3 year (n=2), 3-5 years (n=1), 7-10 years (n=1)</td>
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<td>o Practice manager n=1</td>
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<td>76% currently work with a clinical pharmacist in his/her MS clinic (n=18)</td>
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**Respondents' demographics (n=31)**

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**Areas of care for increased clinical pharmacist involvement**

- Respondents identified a wide range of activities that the role of clinical pharmacists could be expanded within the clinic, including:
  - Symptom management clinic
  - Initial drug therapy recommendation
  - Switch recommendations
  - Involvement in symptomatic management in progressive MS patients who are no longer on DMTs

**Discussion/Conclusions**

The survey results confirmed our beliefs that clinical pharmacists play an important role in the MS interdisciplinary care team. While most of the clinical pharmacist activity rankings were similar between the two surveyed groups, results show a disconnect with prior authorization processing. Although a traditional role, prior authorization processing does not fully utilize the clinical training and capacity of a pharmacist, which is likely why pharmacists ranked this activity much lower. Study limitations include low validity of survey response, small sample size, unknown MS center representation and partial responders. Overall, the results provide information on MS pharmacist activity and role expansion. The emerging role of clinical pharmacists continue to evolve and their clinical capacities are beyond initial perception.

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**Identifying Areas of Clinical Pharmacist Involvement in Advancing the Care of Patients with Multiple Sclerosis**

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(1)Rutgers University, Piscataway, NJ, (2)University of Colorado Skaggs School of Pharmacy and Pharmaceautical Sciences, Aurora, CO, (3)University of California San Francisco School of Pharmacy, San Francisco, CA

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**Results**

**Rankings of clinical pharmacists activities in an MS clinic (continued)**

- Pharmacists (n=4)
  - Patient advocacy
  - Clinical research
  - Infusion review & prep
  - P&T committee
  - Staff education
  - Med protocol development
  - Quality Improvement
  - Prior authorization processing

- Non-pharmacists (n=27)
  - Infusion protocols
  - Medication pricing
  - Safety lab monitoring
  - Bridge gap to manufacturer
  - Review side effects and adherence with patients
  - Symptom management clinic
  - Initial drug therapy recommendation
  - Switch recommendations
  - Involvement in symptomatic management in progressive MS patients who are no longer on DMTs

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