**Introduction**

• Geographic disparities impact the ability of people with MS to access quality MS Care
• Project ECHO® (Extension for Community Healthcare Outcomes) improves healthcare outcomes in underserved areas using technology to build confidence and capacity of community providers:
  • Develops "knowledge networks" - bringing together specialists & community providers via videoconferences
  • Shares "best practices" - reducing variability in care and accelerating dissemination of new knowledge
  • Employs case-based learning - maximizing learning efficiency
• Project ECHO® - safe & effective for patients with Hepatitis C, HIV, chronic pain
• Project ECHO® - University of Washington (UW) & National MS Society collaborative pilot
  • Designed to improve care delivery to patients with MS in rural communities
  • 41 CME weekly videoconference sessions
  • First Project ECHO to involve an alliance between an academic institution & patient advocacy organization

**Objectives**

To establish feasibility of the ECHO model™ for the MS population and to assess impact on MS care by community-based providers.

**Methods**

Facilitation of 41 one-hour sessions, over 3 waves including:
• Experts from UW MS Center, National MS Society and community-based providers from Alaska, Idaho, Montana and Washington
• MS-related didactic (15-30 min) (see Figure 1)
• Case presentations by participants (30-45 minutes)
• Connection to lay and professional info and resources from National MS Society

Qualitative interviews upon completion (n= 24; 13 clinical sites. See Table 1)
• Impact on provider confidence in MS practice
• Case consultation influence on practice habits
• Connection to information and resources from the National MS Society by patients of the participants

**Results**

24 Participants engaged in 29-93% of sessions
• Trend of greater participation from participants with more MS patients (76-86%)
• Number of MS patients cared for ranged from less than 10 to over 200

41 cases presented
• Improved confidence in MS care delivery was rated at 4.53 (5 point Likert scale)
  - bias toward lower ratings from less engaged participants

15 of 24 participants available for interview
• 11 of 15 utilized National MS Society resources
• 13 of 15 appreciated having a mix of specialties represented
• 9 of 15 expressed interest in continuing participation in MS Project ECHO
• 9 of 15 expressed time of day or time constraints as primary barriers to participation
• Having medical students enhanced satisfaction and participation (n=4)
• 12 of 15 interviewed were "presenters" of at least one case (totaling 24 cases)
  - 3 "non-presenters" attended fewest sessions & perceived the least impact on their practice

Four themes emerged reflecting impact related to the case consultations:
• Improved confidence in existing treatment decisions (9 of 12 presenters)
  - example – "absolutely influenced me and gave me so much confidence"
• Direct change in patient care (12 of 24 cases)
  - example – "I shortened the time gap between DMTs when switching"
• Changes in general MS practice habits (8 of 12 presenters)
  - example – "I made changes monitoring disease progression as well as utilizing Society resources"
• Improved perception of patient confidence in their MS-related care
  - examples – "my patient was excited to know I was increasing my knowledge of MS care" and 
  "improved confidence knowing I am part of a team"

**Conclusions**

• MS Project ECHO is feasible and has potential to be an efficient, replicable method to reduce care disparity in rural communities
• Recruitment suggests greatest interest by community neurologists, although other disciplines participated
• Level of participation suggests strong interest in:
  • learning strategies to enhance care for people with MS
  • being part of a learning network

**Future Direction**

• Replicate MS Project ECHO with a larger number of community-based participants to determine ideal target audience (specialty-type)
• Replicate in other geographic regions (including international)
• Use more objective determinants to examine provider practice impact
• Measure impact more objectively on direct patient resource utilization and outcomes

Acknowledgement – Supported by a grant to the National MS Society by the Medtronic Foundation, Patient Link Program, and a private donation to UW
Contact: Gary Stobbe, MD; University of Washington (gastobbe@uw.edu) or Deborah Hertz, MPH; National MS Society (deboraeh.hertz@nmss.org)

**Figure 1. Examples of didactic content.**

**Table 1**

<table>
<thead>
<tr>
<th>Discipline</th>
<th>N (Total = 24)</th>
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