The Impact of Tobacco Use on Symptoms in Persons with Multiple Sclerosis

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Background

- Tobacco use is estimated at over 60% in persons with MS.
- Smoking and respiratory disease are related to increased mortality in persons with MS (Handel et al., 2011).
- Exacerbation of progression indicating increasing lesions for those who smoke (Weinstein-Gutman et al., 2009) and an increase in co-morbidities, especially obesity, coronary artery disease (Marrie et al., 2012).
- Preliminary data (Newland et al., 2012) indicates symptoms in MS may co-occur.

Objectives

- A cross sectional study to determine the relationship between tobacco use and symptom occurrence among persons with relapsing remitting MS (RRMS).

Model Framework

- EDSS-S score: a clear, strong dose response effect
- Heat intolerance: dose response for those smoking at least 5 per day (threshold effect and a dose response effect)
- Heat intolerance and vision loss: threshold effect where there is higher frequency of symptoms when smoke at least a pack a day.
- Well being: a dose response pattern, more smoking, higher score.

Conclusions

- Preliminary findings suggests 1) tobacco use influences what symptoms occur, and 2) there is a dose response relationship: as quantity smoked goes up so does frequency of symptoms in persons with RRMS.
- It is important for patients and clinicians to be aware of differences brought on by tobacco use in relation to symptoms and symptom occurrence.
- Future research is needed for development of interventions that target smoking cessation and symptom management.

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