

# Inpatient Energy Management Education (IEME) for persons with MS-related fatigue

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## Background

Fatigue is one of the most common symptoms in persons with multiple sclerosis (pwMS)<sup>1</sup>. It limits participation in ADLs, productivity and effects quality of life. Outpatient energy conservation education is a valid and effective intervention<sup>2</sup>, but is not compatible with inpatient rehabilitation. Rehabilitation centers need a standardized protocol, feasible in inpatient setting which main the reinforcing effect of peers, principals of patient education, empowerment and change management.



## Methods: Part 1

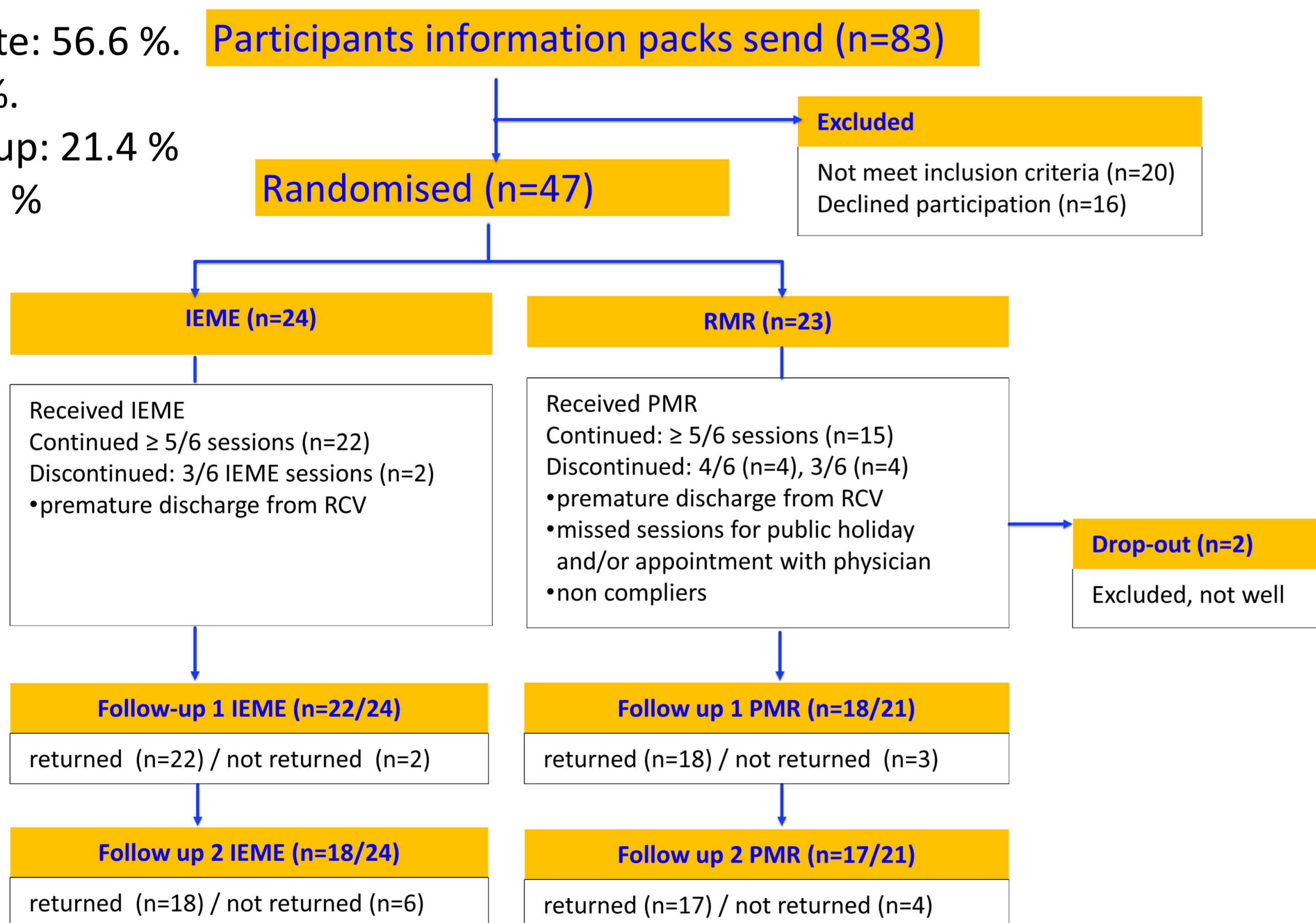
- Development based on scientific literature and knowledge from OT experts.
- Training of 3 OT's in IEME execution.
- Test run with 13 pwMS.
- Analysis of 3 focus group (participants and OTs) discussions after test-run.
- IEME optimization.

## Methods: Part 2

- Small RCT with pwMS from the Rehabilitation Centre Valens.
- Randomization to IEME or to progressive muscle relaxation (PMR; control intervention) in addition to rehabilitation as usual.
- Inclusion criteria: confirmed diagnosis of MS, 3 week inpatient rehabilitation, FSS (>4), EDSS (≤6.5). Exclusion criteria: T-MMSE (<21), BDI-FS (<4).
- Outcome measurement at baseline, after 3-week inpatient rehabilitation (T1) and 4 month from baseline (T2). Assessments: MFIS, SF 36, OSA, Self-efficacy MS-Scale, Self-efficacy for performing energy conservation strategies assessment (SPECESA).

## Results 2: Feasibility of study protocol

- Recruitment rate: 56.6 %
- Drop-out: 4.2 %
- Lost for follow up: 21.4 %
- Follow up: 74.4 %



## Aims

- Part 1:** To develop an inpatient energy management education (IEME) protocol and materials, and user-evaluation of a test-run.
- Part 2:** To evaluate the feasibility of a RCT study-protocol and to explore the effect of IEME on self-efficacy, fatigue and quality of life

## Results 1: Treatment protocol IEME



## Conclusions

- Significant higher (p<0.10) in physical functioning (SF36) and self-efficacy for performing energy conservation strategies in IEME vs. PMR at T1 & T2.
- No significant differences in fatigue impact between the groups.
- High treatment fidelity with 89% of all tasks completed.
- Reduced need of individual OT sessions thanks IEME.
- Participants have left the clinic with high motivation to follow their own goals.
- They are in different stages of change.
- Workload reduction and ergonomic behavior is easier to implement.
- Redesign of daily structure, roles and responsibilities seems more challenging.

### REFERENCES:

1. Krupp L. Fatigue is intrinsic to multiple sclerosis (MS) and is the most commonly reported symptom of the disease. *Mult Scler.* 2006; 12(4): 367-368.
2. Asano M., Finlayson ML. Meta-analysis of three different types of fatigue management interventions for people with multiple sclerosis: exercise, education, and medication. *Mult Scler Int.* 2014;1-12.