

The Mobility of Vulnerable Elders (MOVE) Protocol: A look at the feasibility of Mobilizing Seniors

In 2011, the Council of Academic Hospitals of Ontario (CAHO) launched the MOVE (Mobility of Vulnerable Elders) project¹. This longitudinal project was designed to assess the effect of having health care aides prompt residents several times per day to repeat the sit-to-stand activity and to measure the effects of this simple intervention on the mobility, function and health-related quality of life of Long Term Care (LTC) home residents with dementia. A 2015 report² of results from 7 nursing homes found that residents who received this intervention maintained their mobility and experienced slower functional decline than those not receiving the extra sit-to-stand practice.

A similar MOVE ON (Mobilization of Vulnerable Elders in Ontario) project has been initiated with the goal of improving mobility of hospitalized seniors. In acute care settings, seniors can spend up to 83.3% of their time in bed, with only 3.8% of time devoted to standing or walking³. Not surprising then, is that over 33% of seniors experience functional decline between acute care admission and discharge. Unfortunately, this functional decline is frequently permanent and can put seniors at risk for re-hospitalization or admission to LTC.

In a 2015 commentary, Whelan⁴ suggested that there seem to be some barriers to the implementation of early mobility programs like MOVE. Barriers included those related to:

- A) The patient (e.g. lack of motivation or knowledge)
- B) The healthcare worker (eg. staff shortages and time constraints)
- C) Lack of hospital assistive devices and exercise equipment

Thus, although it is now widely accepted that immobility, whether due to hospitalization or the limited activity level commonly associated with living in LTC, will result in functional decline in the elderly, the question remains – **can seniors’ mobility be increased in a practical, safe and cost-effective way?** This note will use the parameters of the MOVE initiative to address this question and will outline interventions that could be used to maximize the mobility and functional abilities of vulnerable seniors in either hospital or LTC settings.

The basic premise of the MOVE initiative is simple: the functional level of the individual is evaluated in a simplified FIM-like (Functional Independence Measure) scale using the ABC mnemonic:

- A If the person can **A**mbulate
- B If the person can transfer **B**ed to chair
- C If the person **C**annot stand

Table 1. A summary of the MOVE interventions at the three different levels of mobility

| Mobility level (A,B,C) | | Staff Role |
|------------------------|---|--|
| A | Able to Ambulate (with or without assistance) | Ambulate 3x/day or more |
| B | Transfer Bed to Chair (with assistance) | <ul style="list-style-type: none"> • Ensure up to chair 3x/day • Up to commode chair • Active ROM |
| C | Cannot stand to transfer | <ul style="list-style-type: none"> • Encourage to participate in care • Upright for meals • Active/passive ROM 3x/day • Assist with turns • Mechanical lift to chair 1x/day |

Given these categories (Summarized in Table 1), are there other interventions that would better improve function while keeping both resident and staff safe and still be cost effective?

- A The intervention at this level seems easiest; with frequent ambulation (as suggested in Table 1), the individual’s function should be optimally sustained. For many vulnerable elderly in this range, however, walking in a mobility enhancer such as the Bungee Mobility Trainer (**Figure 1**) could cover two critical aspects: 1) It would prevent falls; 2) It would allow for lateral mobility and protective reactions to be exercised.



Fig 1.

B At this level, the big drop in available mobility occurs. Would 3 transfers per day dramatically change this drop in mobility and associated reduction in function? I believe the answer is NO. While adding activity that the individual may be able to practice is better than no activity at all, enabling the standing up and squatting practice with the Sit-to-Stand Trainer (Figure 2), employing lower extremity training with a stepper or ergometer bike, or even enabling gait with a Bungee Mobility Trainer (when appropriate), would bring the activity level to the desired range and better sustain function.



Fig 2.

C At this level, the available function, without the use of enabling devices, is limited. However, with enabling technology, a person who is not able to stand independently, could still practice squatting in a Sit-to-Stand Trainer (Figure 2), train the whole body with an Exercise Wheelchair (Figure 3), or exercise the four extremities with a Pendulum Stepper (Figure 4). Such an elevated level of activity would surely have been suggested in previous years if this type of enabling technology had existed. The equipment is safe, compact and mobile, allowing straightforward practice of all the critical exercises underlying functional mobility, even for the most frail and vulnerable elderly.



Fig 3.



Fig 4.

In conclusion, the recent MOVE initiative is significant. It suggests a simple scale whereby both acute and long term care facilities can determine the required level of intervention. However, as I suggest in this Note, with the help of some environmental changes such as providing enabling technology, the intervention can become more effective and should achieve the clinical and fiscal purposes that drive the MOVE initiative. The next Educational Note in this Series will describe more specifically several suggested interventions and examine more closely their potential impact.

REFERENCES

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