

## CONDUCTING FIM VIA TELEHEALTH

### BACKGROUND

The gold standard for scoring FIM is via direct observation over a 24 hour period. While this is often possible during an inpatient rehabilitation stay; this is not the case when FIM is being assessed in a community setting. In the community, some FIM items may be directly observed in the home setting, but many will be scored on the basis of information gathered from the client, their carers and/or their family.

This paper will briefly discuss the benefits, considerations and the published research for scoring the FIM over telehealth (e.g. telephone, video conference) compared with an in person assessment.

### BENEFITS OF TELEHEALTH

There are benefits to the client/carers/family, the assessor and the payer (whoever is funding the assessment), to completing a FIM assessment over telehealth. These may include;

- Absence of travel required leading to shorter FIM assessment times
- Reduced cost of assessment
- Improved access to FIM assessment

### CONSIDERATIONS WHEN USING TELEHEALTH

There are several items that need consideration when using telehealth to conduct a FIM assessment. They may include but are not limited to;

- Experience of the FIM assessor
- Telephone vs videoconferencing
- Client's communication and cognitive abilities
- What platform to use and whether the client/family will be able to access it (for videoconferencing)
- Internet connectivity (for videoconferencing platforms)
- Will a family member or carer be present to assist with troubleshooting any technical difficulties
- Previous knowledge of client and their functional performance

### PUBLISHED RESEARCH ON FIM VIA TELEHEALTH

The table below summarises five articles that compared FIM assessments conducted via telehealth with those conducted in person. These articles were published between 1996 and 2002 and all used telephone and not videoconferencing platforms to complete the telehealth FIM assessment. Three of the five studies (Chang 1&2 and Petrella) only assessed the motor FIM and three of the five studies (Patrella, Segal and Smith) also excluded participants based on cognitive and/or communication ability. All studies found acceptable agreement between the telephone and in person assessments; though some did find larger error in the telephone assessments.

Study	Participants	Comparison	Results
<b>Chang et al. 1 (1997)</b>	132 geriatric rehab post inpatient discharge	Motor items of FONE FIM vs in home observation FIMs	The FONE FIM showed similar hierarchical structures, misfitting items, optimal item sets, and optimal scale levels, this suggest it has similar validity to face to face FIM. However, there is some evidence that reproducibility may be a problem with the FONE FIM.
<b>Chang et al. 2 (1997)</b>	132 geriatric rehab post inpatient discharge	Motor items of FONE FIM vs in home observation FIMs	Intraclass coefficients showed satisfactory correlation between the scores. However the FONE FIM underestimated motor function for the majority of patients who were at higher levels of cognition and motor function, but overestimated for patients who were at lower levels of cognition and motor function. Results were better for the FONE FIM when answers were taken from the patient rather than a proxy and when assessments were conducted by more experienced assessors.
<b>Petrella et al. (2002)</b>	27 hip fracture patients post inpatient discharge (MMSE >23)	Motor Telephone FIM vs direct observation FIM	Telephone FIM showed good concurrent validity and sensitivity to change though there was a larger degree of error when compared to the observation FIM.
<b>Segal et al. (1996)</b>	25 community dwelling stroke patients ~18/12 post stroke (patients with mod-severe cognitive deficits were excluded)	Telephone FIM proxy agreement vs in person FIM proxy agreement	Proxy agreement for telephone administration was excellent for total scores (intraclass correlation was 0.91) and the physical dimension (0.94) and lower for the cognitive dimension (0.52), closely paralleling results obtained for the in-person administration.
<b>Smith et al. (1996)</b>	40 stroke patients recently discharge from inpatient rehab with verbal and cognitive skills adequate to complete a telephone interview	Telephone FIM vs in home FIM	There was no statistical difference found between the values of the two scores with total FIM score having an intraclass correlation (ICC) score of 0.97. A good agreement was also found across the FIM domains (motor, cognitive) and FIM subscales (self care, sphincter control, transfers, locomotion, communication and social cognition).

## SUMMARY

There is evidence to support conducting FIM assessments via telehealth as valid and reliable. However, this evidence has mainly been found in the motor FIM and in a population with adequate communication and cognitive skills. Clinicians will need to use their clinical judgement when deciding if a telehealth FIM assessment is appropriate to their client's situation and it would be recommended that clinicians become experienced in completing in person FIM assessments before conducting them via telehealth.

## AROC RECOMMENDATIONS FOR ADMINISTERING THE FIM BY TELEHEALTH

- FIM assessors must be credentialed to administer the FIM and maintain their credentialing in line with [AROC requirements](#) for re-credentialing.
- Use a telehealth medium with video capabilities where possible to allow for some observation.
- Have a carer or family member present during the assessment to assist.
- If able conduct a face to face assessment prior to a telehealth assessment.

## REFERENCES

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