

# Evaluating the use of the FIM/FAM as an outcome measure for a new Occupational Therapy service in Critical Care.

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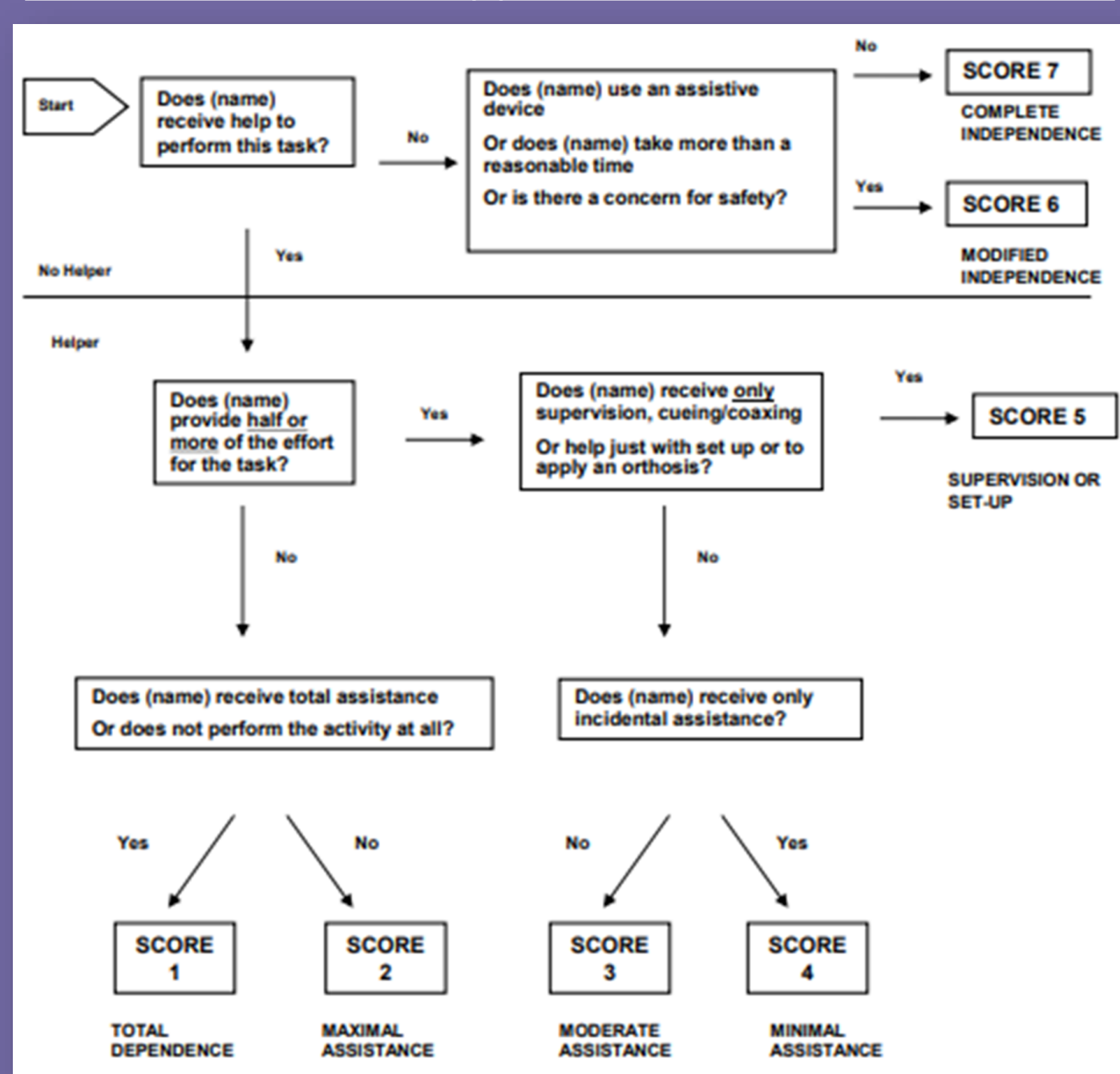
## Introduction

Due to the seriousness of their condition patients in the Critical Care Unit (CCU) are at high risk of ongoing cognitive, physical, and psychosocial impairments. Early rehabilitation has been identified as improving outcomes in these areas and key to this is Allied Health Professionals (AHP) input. Occupational Therapists (OT's) are uniquely trained in both mental and physical health and provide holistic assessment and treatment of patients. National guidance (NICE 83) and GPICS standards have highlighted the importance of this in CCU's and in response an OT service was implemented in Blackpool Victoria Hospital CCU in January 2021.

It is essential that the impact of any new service is measured, and after consultation with established critical care OT's, the Functional Independence Measure/Functional Assessment Measure (FIM/FAM) was selected. This provides a reliable measure of physical, cognitive, communication and psychosocial function.

The tool typically scores 30 individual categories, split into motor and cognitive items, from 1-7 with 1 being total dependence and 7 independent, flow charts are provided to indicate scores, and these are then collated to provide a total motor and cognitive change in patient.

### Flow chart used to support accurate and reliable use



## Methodology

Data was collected for patients admitted to critical care, scores were then recorded on referral, where goals were set and then on discharge from critical care. This data was reviewed in team meetings to establish how it should be collected, analysed, measured, and reported.

### Data Collection Tool

Motor items	Admission	Goal	Discharge
1. Eating	1	5	5
2. Swallowing	1	5	5
3. Grooming	2	4	4
4. Bathing	2	4	4
5. Dressing Upper Body	2	4	4
6. Dressing Lower Body	1	3	4
7. Toileting	2	4	4
10. Bed, Chair, Wheelchair transfer	1	3	5
11. Toilet transfer	1	3	5
12. Tub, Shower transfer	0	0	0
14(i) Locomotion - walking "w"	1	2	2
14(ii) Locomotion - Wheelchair "c"	0	0	0
15. Stairs	0	0	0
<b>Total Scores:</b>			
Self Care	11	29	30
Locomotion	3	8	12
<b>Total Motor Subscore</b>	<b>14</b>	<b>37</b>	<b>42</b>
Cognitive items	Admission	Goal	Discharge
17. Comprehension	2	4	4
18. Expression	3	4	4
19. Reading	1	1	1
20. Writing	1	1	1
21. Speech Intelligibility	3	5	5
22. Social Interaction	3	5	4
23. Emotional Status	3	5	5
24. Adjustment to Limitations	1	2	2
26. Problem Solving	1	2	3
27. Memory	1	2	3
28. Orientation	3	4	5
29. Concentration	2	3	3
30. Safety Awareness	2	3	3
<b>Totals</b>			
Communication	10	15	15
Cognitive/psychosocial	16	26	28
<b>Total Cognitive Subscore</b>	<b>26</b>	<b>41</b>	<b>43</b>

## Results

Data was collected from 38 patients during a 4-month period. Following this a discussion was carried out between OT's and the following aspects were considered learning outcomes:

- Use of specific flow charts provided for each category increased accuracy and reliability.
- The time needed to complete the scores was more than other outcomes measures (Barthel index, Austoms etc).
- Data from deceased patients and patients transferred to other hospitals should not be included in reported statistics to avoid misrepresentation of therapy input.
- Scores should be recorded following functional assessment not at point of referral, as patients are often sedated at this point producing inflated therapy results.
- Not all items are applicable to OT, eg bladder and bowel care, and were subsequently removed from collection tool.
- The categories focus therapy and guide interventions, enabling more holistic treatment plans.
- Data should be collected continuously to provide a clearer long-term picture of the service rather than split into months
- Input from other professionals was welcomed and encouraged to ensure accurate scoring.
- Data was only recorded from patients who required functional and cognitive/psychosocial support, patients with more simplistic or short term needs were excluded.

## Conclusion

While the FIM/FAM provides an accurate measure of change in patients motor and cognitive skills it takes time to complete. This is exacerbated by using the flow charts provided however, this significantly increases reliability and accuracy while also developing confidence in its use. As confidence and understanding of the tool increased the data begins to indicate possible areas of improvement and direct therapists' interventions. It has provided a good level of information to support a new OT service however, further investigation is needed to gain an accurate understanding of the impact this is having on patient care.

## What Next?

- Detailed analysis of the data collected to establish the impact of the service in critical care.
- Linking in with other professional in the MDT to increase accuracy of scoring further.
- Explore of the impact of routinely not scoring specific items on the validity of the tool
- Potentially standardising outcome measures across local network to facilitate comparison of service provided.