ssmc مـدينة الشـيخ شخبـوط الطـبية
Sheikh Shakhbout Medical City

REHABILITATION OUTCOME MEASURES

EFFECTIVENESS SUMMARY





1. PURPOSE

This report summarises rehabilitation clinical effectiveness using standardised outcome measures captured across rehabilitation services from January to December 2025. The primary aim is to demonstrate functional improvement, symptom reduction, and maintenance of independence, and to support continuous quality improvement and accreditation requirements (CARF-aligned performance measurement).

2. DATA SOURCE AND METHODOLOGY

- A master dataset was extracted from the Salamtak System - Reporting Portal **(outcome documentation records).**
- **Included records met the following criteria:**
    1. Initial evaluation outcome score completed, and
    2. Discharge outcome score completed, enabling paired comparison.
- **Outcomes were categorised as:**
    1. **Improved:** discharge score indicates improvement (per tool direction)
    2. **Maintained:** discharge score unchanged
    3. **Declined:** discharge score indicates deterioration (per tool direction)
- Only cases with both initial and discharge scores were included to ensure valid effectiveness analysis.
- **Total analysed sample: 1,050** completed paired assessments (initial + discharge).

3. OVERALL DATASET SUMMARY

- A total of **1,050 outcome** measure assessments were analysed across rehabilitation services based on paired initial and discharge scores.

Outcome Measure	Total	Improved	Maintained	Declined
WeeFIM	18	11	7	0
Visual Analogue Scale (VAS, 0-10)	142	142	0	0
Upper Extremity Functional Index (UEFI)	17	12	1	4
Pelvic Floor Distress Inventory	9	7	2	0
Revised Fibromyalgia Impact Questionnaire (FIQR)	7	6	1	0
Alberta Infant Motor Scale (AIMS)	8	8	0	0
Oswestry Neck Disability Index	21	16	1	4
Modified Rankin Scale (mRS)	165	74	85	6
Modified Oswestry Low Back Pain Disability Questionnaire	38	35	2	1
Lower Extremity Functional Scale (LEFS)	44	40	3	1
ICU Mobility Scale	81	61	20	0
Activity Measure for Post-Acute Care (AM-PAC)	500	337	153	10

4. KEY EFFECTIVENESS INDICATORS

- **Based on the total 1,050 paired assessments:**

1. **Positive outcomes (Improved + Maintained):** 1,024 out of 1,050, representing 97.5%
2. **Improved:** 749 out of 1,050, representing 71.3%
3. **Maintained:** 275 out of 1,050, representing 26.2%
4. **Declined:** 26 out of 1,050, representing 2.5%

- The dataset demonstrates a very strong overall effectiveness profile, with most cases showing measurable improvement and a significant proportion maintaining function, expected in medically complex patients where preventing deterioration is a key rehabilitation outcome. The deterioration rate is low (2.5%), supporting overall programme effectiveness while highlighting a small number for targeted review.

5. INTERPRETATION OF RESULTS

- The outcomes demonstrate strong rehabilitation effectiveness across service lines, with most patients achieving functional gains and/or maintaining independence at discharge. **Key interpretations include:**

1. Consistent positive outcomes across multiple tools and populations (adult, paediatric, inpatient, outpatient).
2. Maintained scores may reflect successful stabilisation in complex medical/surgical, neurological, ICU, or progressive conditions.
3. The low deterioration proportion indicates effective clinical decision-making, timely intervention, and multidisciplinary planning.



6. INDIVIDUAL OUTCOME MEASURES (DEFINITIONS AND CLINICAL INTERPRETATION)

(1) WeeFIM (Functional Independence Measure - Paediatric)

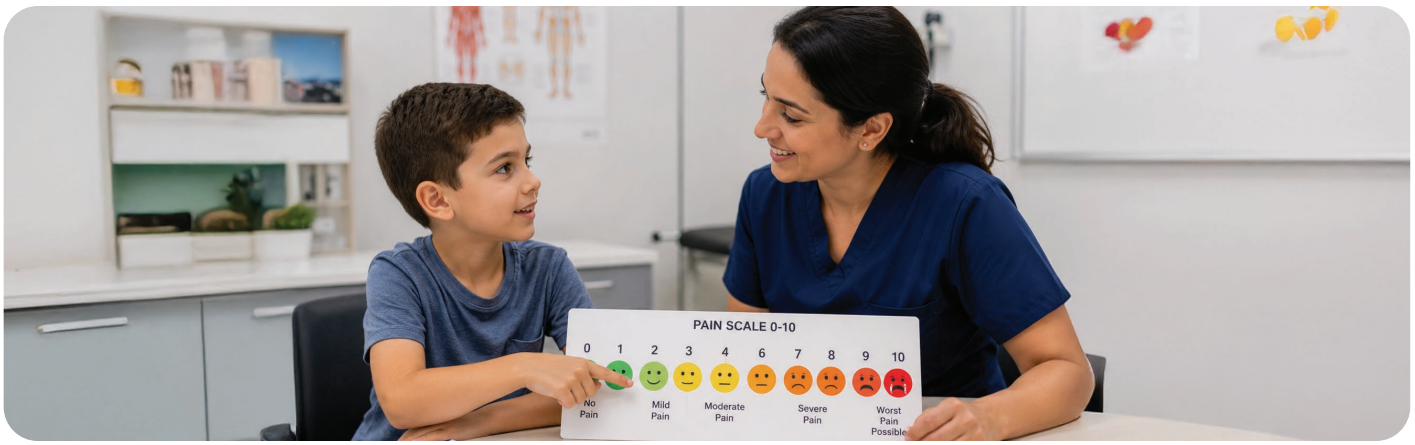
- **What it measures:** functional independence in daily activities (self-care, mobility, cognition), often used in paediatric or specialised rehab contexts.
- **Direction:** higher score indicates better function/independence.
- **Clinical meaning:** improvement supports increased independence, reduced caregiver burden, and readiness for discharge planning.





(2) Visual Analogue Scale - Pain

- **What it measures:** patient-reported pain intensity (commonly 0-10, where 0 indicates no pain, 10 indicates worst pain).
- **Direction:** lower score indicates improvement.
- **Clinical meaning:** reduction in pain supports improved participation in therapy, mobility tolerance, ADLs, and overall patient experience.



(3) Upper Extremity Functional Index

- **What it measures:** upper limb functional ability (commonly 0-80).
- **Direction:** higher score indicates better function.
- **Clinical meaning:** improvements reflect better arm/hand use for work, self-care, and functional tasks; relevant for orthopaedic, neuro, and post-surgical populations.



(4) Pelvic Floor Distress Inventory

- **What it measures:** symptom burden and functional impact related to pelvic floor dysfunction.
- **Direction:** typically, a lower score indicates fewer symptoms / improvement.
- **Clinical meaning:** improvements reflect better continence control, reduced symptom distress, and improved quality of life.



(5) Revised Fibromyalgia Impact Questionnaire

- **What it measures:** impact of fibromyalgia on function, symptoms, and overall wellbeing.
- **Direction:** typically, a lower score indicates improvement (reduced impact).
- **Clinical meaning:** improvements reflect better symptom management, participation, sleep/energy tolerance, and functional capacity.



(6) Alberta Infant Motor Scale

- **What it measures:** gross motor development in infants (observational motor milestones).
- **Direction:** higher score/percentile progression indicates improvement.
- **Clinical meaning:** improved motor performance supports early intervention effectiveness and developmental progress.



(7) Oswestry Neck Disability Index

- **What it measures:** disability related to neck pain affecting daily function.
- **Direction:** lower score indicates less disability / improvement.
- **Clinical meaning:** improvements reflect better functional tolerance (work/ADLs), reduced pain-related limitation, and better participation.



(8) Modified Rankin Scale

- **What it measures:** global disability/functional status commonly used in stroke and neurological populations.
- **Direction:** lower score indicates better function.
- **Clinical meaning:** improvement indicates reduced disability and better independence; maintenance is clinically valuable for preventing decline in high-risk neuro/medical cases.



(9) Modified Oswestry Low Back Pain Disability Index

- **What it measures:** disability related to low back pain.
- **Direction:** lower score indicates reduced disability / improvement.
- **Clinical meaning:** improvements reflect better mobility tolerance, improved activity participation, and reduced functional limitation.



(10) Lower Extremity Functional Scale

- **What it measures:** lower extremity function (walking, balance, stairs, and daily mobility tasks).
- **Direction:** higher score indicates better mobility/function.
- **Clinical meaning:** improvements reflect safer ambulation, better endurance, and improved independence.





(11) ICU Mobility Scale

- **What it measures:** mobility progression in critical care settings.
- **Direction:** higher score indicates improved mobility.
- **Clinical meaning:** gains indicate successful early mobility, reduced deconditioning risk, and improved discharge readiness.



(12) AM-PAC (Activity Measure for Post-Acute Care)

- **What it measures:** basic mobility and daily activity function across care settings; widely used for inpatient functional tracking and discharge planning.
- **Direction:** higher score indicates greater independence.
- **Clinical meaning:** improvement supports safe discharge planning, reduced length of stay, and better functional outcomes for complex inpatient populations.



7. QUALITY IMPROVEMENT IMPLICATIONS

- **Outcome results to be reviewed by rehab leadership and clinical teams to:**
    1. Monitor service effectiveness across disciplines and settings
    2. Guide clinical training needs and competency development
    3. Strengthen evidence-based practice and patient-centred care

- **Where outcomes are maintained or declined, further analysis supports distinguishing between:**
    1. Expected clinical course/medical complexity and disease progression, versus
    2. Modifiable service factors (timing, intensity, adherence, access, documentation accuracy)

8. ACTION PLAN:

- A unified scoring and reporting methodology will be developed and implemented across rehabilitation disciplines.
- **All cases demonstrating decline will undergo a focused review to determine:**
    1. Whether deterioration is primarily related to underlying medical/clinical progression.
    2. Whether contributing factors relate to rehabilitation intensity, frequency, adherence, delayed initiation, access barriers, or discharge constraints.
- Findings will guide targeted interventions and service adjustments/review.

9. CONCLUSION

- The outcomes review across 1,050 standardised paired assessments demonstrates that rehabilitation services are highly effective in supporting patient recovery, functional independence, and symptom reduction. With 97.5% positive outcomes (improvement or maintenance) and a low deterioration rate (2.5%), the department consistently delivers high-quality, evidence-based rehabilitation care, aligned with continuous quality improvement expectations and accreditation-focused performance measurement.