

Key Publications from UK ROC

Proof of principle studies

Evidence for the effectiveness and cost-efficiency of rehabilitation

Systematic reviews

Turner-Stokes L, Disler P, Nair A, Wade D.
Multi-disciplinary rehabilitation for acquired brain injury in adults of working age. [Full review]
Cochrane Database of Systematic Reviews. 2005 Jul 20;(3):CD004170.

Turner-Stokes L.
Evidence for the effectiveness of multi-disciplinary rehabilitation following acquired brain injury: a synthesis of two systematic approaches
Journal of Rehabilitation Medicine 2008;40(9):691-701

Developing the cost-efficiency model

Turner-Stokes L, Paul, S, Williams H.
Efficiency of specialist rehabilitation in reducing dependency and costs of continuing care for adults with complex acquired brain injuries
Journal of Neurology, Neurosurgery and Psychiatry 2006; 77: 634-639

Turner-Stokes L.
Cost-efficiency of longer-stay rehabilitation programmes: Can they provide value for money?
Brain Injury 2007 21(10):1015-21

Costing and tariff development

Turner-Stokes L, Sutch S, Dredge R.
Healthcare tariffs for specialist inpatient neurorehabilitation services: Rationale and development of a UK casemix and costing methodology.
Clinical Rehabilitation. 2012: 26(3): 264-279

Turner-Stokes L, Bill A Dredge R.
A cost analysis of specialist inpatient neurorehabilitation services in the UK
Clinical Rehabilitation. 2012: 26(3):256-263

Engagement in standardised outcome measurement

Turner-Stokes L, Turner-Stokes T.
The use of standardised outcome measures in rehabilitation centres in the UK
Clinical Rehabilitation 1997; 11: 306-3

Skinner A, Turner-Stokes L.
The use of standardized outcome measures in Rehabilitation centres in the UK
Clinical Rehabilitation 2006: 20(7):609-15.

Turner-Stokes L, Williams H, Sephton K, Rose H, Harris S, Thu A.
Engaging the hearts and minds of clinicians in outcome measurement – the UK Rehabilitation Outcomes Collaborative approach
Disability and Rehabilitation. 2012: 34(22); 1871-9

Validation of UK ROC tools

UK Functional Assessment Measure (FIM+FAM)

Turner-Stokes L, Nyein K, Turner-Stokes T, Gatehouse C.
The UK FIM+FAM: Development and evaluation
Clinical Rehabilitation 1999; 13: 277-287

Law J, Fielding B, Jackson D, Turner-Stokes L.
The UK FIM+FAM Extended Activities of Daily Living (EADL) module: evaluation of scoring accuracy and reliability.
Disability and Rehabilitation. 2009;31(10):825-30.

Turner-Stokes L, Siegert RJ.
A comprehensive psychometric evaluation of the UK FIM+FAM.
Disability and Rehabilitation. 2013; 35(22): 1885-95

Medvedev O, Turner-Stokes L, Ashford S, Siegert R.
Rasch analysis of the UK Functional Assessment Measure in patients with complex disability after stroke
Journal Rehabilitation Medicine. 2018 Feb 28. doi: 10.2340/16501977-2324.

Turner-Stokes L, Medvedev O, Ashford S, Siegert R.
Rasch analysis of the UK Functional Assessment Measure (UK FIM+FAM) in a sample of patients with traumatic brain injury from the UK national clinical database.
Journal Rehabilitation Medicine. 2019 Sept.3 51 (8): 566-574,
doi: 10.2340/16501977-2580.

Nayar M, Alexandrescu R, Siegert RJ, Turner-Stokes L.
The UK FIM+FAM: A first formal psychometric evaluation in patients undergoing rehabilitation following stroke.

Northwick Park Dependency and Care needs Assessment (NPDS/NPCNA)

Turner-Stokes L, Tonge P, Hunter M, Nielson S, Robinson I.
The Northwick Park Dependency Score - a measure of nursing dependency in rehabilitation
Clinical Rehabilitation 1998; 12: 304-16

Turner-Stokes L, Nyein K, Halliwell D.
Care Needs Assessment - a directly costable outcome measure for rehabilitation
Clinical Rehabilitation 1999; 13: 253-268

Nyein K, Turner-Stokes L, Robinson I.
Sensitivity and predictive value of the Northwick Park Care Needs Assessment (NPCNA) as a measure of care needs in the community
Clinical Rehabilitation 1999; 13: 482-491

Williams H, Harris R, Turner-Stokes L.
Can the Northwick Park Care Needs Assessment be used to estimate nursing staff requirements in an in-patient rehabilitation setting?
Clinical Rehabilitation 2007; 21(6):535-44.

Williams H, Harris R, Turner-Stokes L.
Northwick Park Care Needs Assessment: adaptation for inpatient neurological rehabilitation settings
Journal of Advanced Nursing 2007; 59(6):612-22.

Siegert RJ, Jackson D, Tennant A, Turner-Stokes L.
A psychometric evaluation of the Northwick Park Dependency Scale (NPDS)
Journal of Rehabilitation Medicine 2010: 42: 936-943

Derivation of the Barthel index

Nyein K, McMichael L, Turner-Stokes L.
Can a Barthel Index be derived from the FIM?
Clinical Rehabilitation 1999; 13: 56-63

Turner-Stokes L, Williams H, Howley D, Jackson D.
Can the Northwick Park Dependency Scale be translated to a Barthel Index?
Clinical Rehabilitation 2010; 24 (12):1112-1120

Turner-Stokes L, Williams H, Rose H, Harris S, Jackson D.
Deriving a Barthel Index from the Northwick Park Dependency Scale and the Functional Independence measure – are they equivalent?
Clinical Rehabilitation 2010; 24 (12):1121-1126

The Rehabilitation Complexity Scale (RCS-E)

Turner-Stokes L, Disler R, Williams H.
The Rehabilitation Complexity Scale: a simple, practical tool to identify 'complex specialised' services in neurological rehabilitation.
Clinical Medicine 2007;7(6): 593-9.

Turner-Stokes L, Williams H, Siegert RJ
The Rehabilitation Complexity Scale: A clinimetric evaluation in patients with severe complex Neurodisability.
Journal of Neurology, Neurosurgery and Psychiatry. 2010; 81(2):146-53.

Turner-Stokes L, Scott H, Williams H, Siegert RJ.
The Rehabilitation Complexity Scale – extended version: detection of patients with highly complex needs
Disability and Rehabilitation 2012; 34(9):15-20

Northwick Park Therapy Dependency Assessment

Turner-Stokes L, Shaw A, Law J, Rose H.
Development and initial validation of the Northwick Park Therapy Dependency Assessment
Clinical Rehabilitation 2009; 23(10): 922-37

The Neurological Impairment Set (NIS)

Turner-Stokes L, Thu A, Williams H, Casey R, Rose H, Siegert RJ,
The Neurological Impairment Scale: reliability and validity as a predictor of functional outcome in neurorehabilitation.
Disability and Rehabilitation 2014;36(1):23-31 doi: 10.3109/09638288.2013.775360. PMID: 23721497

Alexandrescu R, Siegert R, Turner-Stokes L
The Northwick Park Therapy Dependency Assessment scale: a psychometric analysis from a large multicentre neurorehabilitation dataset
Disability & Rehabilitation 2015 Oct;37(21):1976-83. doi: 10.3109/09638288.2014.998779. Epub 2015 Jun 5. PMID: 25598001

Goal attainment scaling (GAS)

Turner-Stokes L, Williams H, Johnson J.
Goal Attainment Scaling: does it provide added value as a person-centred measure for evaluation outcome in neurorehabilitation following acquired brain injury?
Journal of Rehabilitation Medicine 2009; 41(7): 528-35.

Turner- Stokes L, Williams H.
Goal Attainment Scaling: a direct comparison of alternative rating methods
Clinical Rehabilitation 2010; 24(1): 66-73.

Goal Attainment Scaling (GAS) in Rehabilitation: A practical guide
Clinical Rehabilitation 2009; 23(4): 362-70.

Turner-Stokes L.
Goal Attainment Scaling and its relationship with standardised outcome measures - a commentary
Journal of Rehabilitation Medicine 2011;43(1):70-72

Turner-Stokes L, Rose H, Ashford S, Singer BJ
Patient engagement and satisfaction with goal planning: Impact on outcome from rehabilitation
International Journal of Therapy and Rehabilitation 2015; 22(5):210-216

Turner-Stokes L, Rose H, Lakra C, Williams H, Ashford SA, Siegert RJ
Goal-setting and attainment in Prolonged Disorders of Consciousness – development of a structured approach
Brain Injury. 2019 Oct 30:1-11. doi: 10.1080/02699052.2019.1682190. [Epub ahead of print]. PMID: 31661982

Patient categorisation tool (PCAT)

Turner-Stokes L, Krageloh CU, Siegert R.
The patient categorisation tool: psychometric evaluation of a tool to measure complexity of needs for rehabilitation in a large multicentre dataset from the United Kingdom.
Disability and Rehabilitation. 2018 Jan 18:1-9. doi: 10.1080/09638288.2017.1422033.

Siegert R, Medvedev O, Turner-Stokes L,
Dimensionality and scaling properties of the Patient Categorisation Tool (PCAT) in patients with complex rehabilitation needs following acquired brain injury
Journal Rehabilitation Medicine. 2018 May 8;50(5):435-443. doi: 10.2340/16501977-2327.

The post ICU Presentation Screen and Rehabilitation Prescription (PICUPS & RP)

Turner-Stokes L, Corner EJ, Siegert RJ, Brown C, Wallace S, Highfield J, Bear D, Aitken LM, Montgomery H and Puthuchery Z
The Post-ICU Presentation Screen (PICUPS) and Rehabilitation Prescription (RP) for Intensive Care survivors Part I: Development and preliminary clinimetric evaluation.
Journal of the Intensive Care Society 2021. First online 5 Feb 2021
doi: [10.1177/1751143720988715](https://doi.org/10.1177/1751143720988715)

Puthuchery Z, Brown C, Corner EJ, Wallace S, Highfield J, Bear D, Rehill N, Montgomery H, Aitken LM, and Turner-Stokes L,
The Post-ICU Presentation Screen (PICUPS) and Rehabilitation Prescription (RP) for Intensive care survivors part II: Clinical engagement and future directions for the National Post-Intensive Care Rehabilitation Collaborative.
Journal of the Intensive Care Society 2021: First online 1 Feb 2021
doi: [10.1177/1751143720988708](https://doi.org/10.1177/1751143720988708)

Using the UK ROC dataset to make the case for rehabilitation

Using the tools in clinical practice

Turner-Stokes L, Poppleton R, Williams H, Schoewenaars K, Badwan, D.
Using the UK ROC dataset to make the case for resources to improve cost-efficiency in neurological rehabilitation
Disability and Rehabilitation 2012; 34(22); 1900-6

Poppleton, R; Turner-Stokes L, Schoewenaars K
The journey in trying to achieve eligibility for level 1 status in a specialised rehabilitation service
Social care and neurodisability 2012; 3(3) 131-9

Singh R, Sinha S, Bill A, Turner-Stokes L
Unmet need for specialised rehabilitation following neurosurgery: can we maximise the potential cost-benefits?
Brit J Neurosurg 2017; 31(2):249-253. doi: 10.1080/02688697.2016.1233318

Cost efficiency and life time savings

Turner-Stokes L, Williams H, Bill A, Bassett P, Sephton K.
Cost-efficiency of specialist inpatient rehabilitation for working-aged adults with complex neurological disabilities: A multicentre cohort analysis of a national clinical dataset
BMJ Open 2016 Feb 24;6(2):e010238. doi: 10.1136/bmjopen-2015-010238

Turner-Stokes L, Bavikatte G, Williams H, Bill A, Sephton K.
Cost-efficiency of specialist hyperacute in-patient rehabilitation services for medically unstable patients with complex rehabilitation needs: a prospective cohort analysis. **BMJ Open.** 2016 Sep 8;6(9):e012112. doi: 10.1136/bmjopen-2016-012112.

Turner-Stokes L, Dzingina M, Shavelle R, Bill A, Williams H, Sephton K
Estimated life-time savings in the cost of on-going care following specialist rehabilitation for severe traumatic brain injury in the UK.
Journal of Head Trauma Rehabilitation. Accepted and in press 2018
(Subsequently published: doi:10.1097/HTR.0000000000000473. PMID: 30801440)

Turner-Stokes L, Harding R, Peihan Y, Dzingina M, Wei G
Cost-efficiency of specialist inpatient rehabilitation for adults with multiple sclerosis: A multicentre prospective cohort analysis of a national clinical dataset
Multiple Sclerosis Journal – Experimental, Translational and Clinical. 2020 Mar 16;6(1):2055217320912789. doi: 10.1177/2055217320912789. eCollection 2020 Jan-Mar.

Turner-Stokes L, LeFeuille G, Francis R, Nayar M, Nair N.
Functional outcomes and cost-efficiency of specialist in-patient rehabilitation following spinal cord injury: A multi-centre national cohort analysis from the UK Rehabilitation Outcomes Collaborative (UKROC)
Disability and Rehabilitation. 2021 Jul 20;1-9. doi: 10.1080/09638288.2021.1946603.

Turner-Stokes L, Khan F, Stevermuer T, Simmonds F, Eagar K
Comparison of rehabilitation outcomes for long term neurological conditions: A cohort analysis of the Australian Rehabilitation Outcomes Centre Dataset.
PLOS One 2015 Jul 13;10(7):e0132275. doi: 10.1371/journal.pone.0132275. PMID: 26167877

Jackson DM, Seaman K, Sharpe K, Singer R, Turner-Stokes L
Staged residential post-acute rehabilitation for adults following acquired brain injury: A comparison of functional gains rated on the UK Functional Assessment Measure (UK FIM+FAM) and the Mayo-Portland Adaptability Inventory (MPAI-4)
Brain Injury 2017;31(11):1405-1413. doi: 10.1080/02699052.2017.1350998. Epub 2017 Sep 12.

Turner-Stokes L, Rose H, Ashford S, Singer BJ
Patient engagement and satisfaction with goal planning: Impact on outcome from rehabilitation
International Journal of Therapy and Rehabilitation 2015; 22(5):210-216

Shavelle RM, Brooks JC, Strauss DJ, Turner-Stokes L.
Life Expectancy after Stroke Based On Age, Sex, and Rankin Grade of Disability: A Synthesis.
Journal of Stroke and Cerebrovascular Diseases. 2019 Oct 29:104450.
doi: 10.1016/j.jstrokecerebrovasdis.2019.104450. [Epub ahead of print] P PMID: 31676160.

Williams E, Martini A, Wagland J, Turner-Stokes L
Impact of time between acquired brain injury and admission to community-based rehabilitation on cognitive and functional gains
Brain Injury. 2020 May 11;34(6):713-722. doi: 10.1080/02699052.2020.1740943. Epub 2020 Apr 7.

Turner-Stokes L, Rose H, Knight A, Williams H, Siegert RJ, Ashford SA. *Prolonged disorders of consciousness: identification using the UK FIM + FAM and cohort analysis of outcomes from a UK national clinical database.* **Disabil Rehabil.** 2022 Feb 15:1-10. doi: 10.1080/09638288.2022.2037754. Epub ahead of print. PMID: 35166637.