

The Rehabilitation Complexity Scale – Extended version (RCS-E) Version 13

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Turner-Stokes L, Scott,H, Williams H, Siegert RJ. The Rehabilitation Complexity Scale –
extended version: detection of patients with highly complex needs. Disability and
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Further information and advice may be obtained from:

Professor Lynne Turner-Stokes DM FRCP
Herbert Dunhill Chair of Rehabilitation, King's College London.

Regional Rehabilitation Unit,
Northwick Park Hospital,
Watford Road,
Harrow, Middlesex.
HA1 3UJ

Tel: +44 (0) 208-869-2800;
Fax: +44 (0) 208-869-2803
Email: lynne.turner-stokes@dial.pipex.com

Or from:

Ms Heather Williams, Senior Research fellow
UK Rehabilitation Outcomes Collaborative (UKROC)
Northwick Park Hospital – address as above

Tel: +44 (0) 208-869-5171;
Email: Heather.williams4@nhs.net

About the Rehabilitation Complexity Scale – Extended Version (RCS-E)

The original RCS is a simple measure of the complexity of rehabilitation needs. It was designed originally by the Expert Working Group for Rehabilitation Healthcare Resource groups (HRGs) to be applicable across a broad spectrum of rehabilitation services.

It has been tested in a variety of areas of rehabilitation (including neurological, orthopaedic, respiratory and burns rehabilitation) and now forms the basis for cost-banding of tariffs for rehabilitation under the UK Payment by Results programme

The RCS has been shown to be psychometrically robust(1) and to distinguish between services with different caseload complexity(2). However, it has ceiling effects in patients with very complex needs – especially those in neurorehabilitation settings.

The RCS-E has been developed as an extended version to:

- a) extend the upper range of the scale
- b) provide a measure of ‘Risk’ as an alternative to Care needs
- c) include an assessment of needs for equipment

The content and score range of the two versions is summarized below

Subscale	Domain	RCS Score range	RCS-E score range
C (or R)	Basic care and support needs	0-3 -	0-4 (0-4)
N	Skilled nursing needs	0-3	0-4
T-D and T-I	Therapy needs – no of disciplines Therapy needs – intensity	0-3 0-3	0-4 0-4
M	Medical needs	0-3	0-4
E	Equipment	-	0-2
	Total	0-15	0-22

Either scale may be applied both prospectively (as a measure of rehabilitation needs) and retrospectively as a framework for assessing rehabilitation inputs. It can therefore be used to provide a simple evaluation of the gap between needs and provision.

Whilst it can reasonably be summed into a total, the individual items provide clinically useful information so we recommend that it is reported in a manner analogous to the GCS eg RCS-E 16 (C2 N4 M3 T7).

Evaluation demonstrates that the RCS-E retains good scaling properties, whilst reducing the ceiling effect, providing a more normal distribution of data (3). It takes only a little longer than the RCS to rate, and most specialist neurorehabilitation units in the UK are now using it. The UKROC software automatically provides a conversion of RCS-E to RCS data, for the purposes of comparison

References

1. 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.
2. 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.
3. 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

The Rehabilitation Complexity Scale: extended

PATIENT IDENTIFICATION

Name: _____ Hospital No: _____ Date of score:...../...../.....

For each subscale, circle highest level applicable

BASIC CARE AND SUPPORT NEEDS
 Describes the approximate level of intervention required for basic self-care or level of risk
 (For all centres: score both care and risk and use highest score)

	CARE: Standard rehab needs		RISK: Cognitive behavioural needs
C 0	Largely independent in basic care activities	R 0	No risk – Able to maintain their own safety Able to go out unescorted
C 1	Requires help from 1 person for most basic care needs	R 1	Low risk – standard precautions only for safety monitoring within a structured environment But requires escorting outside the unit
C 2	Requires help from 2 people for most basic care needs	R 2	Medium risk – additional safety measures eg alarms, tagging, or above standard monitoring OR managed under MHA section
C 3	Requires help from ≥3 people for basic care needs	R 3	High risk –Frequent observations (eg ½ -1 hourly checks or 1:1 support some of the time (may also be managed under MHA section)
C 4	Requires constant 1:1 supervision – for safety or behavioural management	R 4	Very high risk Requires constant 1:1 supervision

SKILLED NURSING NEEDS
 Describes the level of intervention required from qualified or skilled rehab nursing staff

N 0	No needs for skilled nursing	Tick nursing disciplines required: General registered nursing Rehab-trained nurses Mental Health (RMN) Palliative care nursing Specialist neuro nurse (eg MS, PD, MND) State subspecialty..... Other
N 1	Requires intervention from a qualified nurse (e.g. for monitoring, medication, dressings etc)	
N 2	Requires intervention from trained rehabilitation nursing staff and/or mental health nurses	
N 3	Requires specialist nursing care (e.g. for tracheostomy, behavioural management etc)	
N 4	Requires high dependency specialist nursing (eg medically unstable, very frequent monitoring/ intervention by a qualified nurse - hourly or more often)	

MEDICAL NEEDS
 Describes the approximate level of medical care environment required for medical/surgical management

M 0	No active medical intervention (Could be managed by GP on basis of occasional visits)	Tick medical interventions required: Blood tests Imaging (CT / MRI) Other Investigation State type..... Medication adjustment / monitoring Surgical procedure (eg tenotomy) State type..... Medical procedure (eg Botulinum toxin) State type..... Specialist opinion State discipline..... Medico-legal or capacity issues Other.....
M 1	Basic investigation / monitoring / treatment (Requiring non-acute hospital care, could be delivered in a community hospital with day time medical cover)	
M 2	Specialist medical / psychiatric intervention – for diagnosis or management/procedures (Requiring in-patient hospital care in (DGH or specialist)	
M 3	Potentially unstable medical / psychiatric condition (Requiring 24 hr availability of on-site acute medical / psychiatric cover)	
M 4	Acute medical / surgical problem (or psychiatric crisis) Requiring emergency out-of hours intervention	

THERAPY NEEDS Describes the approximate level of input that is required from <u>therapy</u> disciplines			
Therapy Disciplines: State number of different therapy disciplines required to be <u>actively</u> involved in <u>treatment</u>			
TD 0	0	Tick therapy disciplines required:	
TD 1	1 disciplines only	Physio O/T SLT	Psychology Counselling Music/art therapy
TD 2	2-3 disciplines	Dietetics Social work Other	Play therapy/school DEA/Jobcentre Plus Recreational therapy Other
TD 3	4-5 disciplines		Orthotics Prosthetics Rehab Engineer Other:
TD 4	≥6 disciplines		

Therapy Intensity: State overall intensity of trained therapy intervention required from team as a whole	
TI 0	No therapy intervention (or <1 hour total/week - Rehab needs met by nursing/care staff or self-exercise programme)
TI 1	Low level – less than daily (eg assessment / review / maintenance / supervision) <u>OR Group therapy only</u>
TI 2	Moderate – daily intervention - individual sessions with one person to treat for most sessions (Daily sessions (5 days/week) 2-3 hours per day) <u>OR very intensive Group programme</u> of ≥6 hours/day
TI 3	High level – Daily intervention with therapist PLUS assistant and/or additional group sessions (Daily sessions (5 days/week) >3 hours per day or Total therapist time approximately 25-30 hours per week)
TI 4	Very High level – very intensive (eg 2 trained therapists to treat, or total 1:1 therapy >30 hrs/week)
Total	Total T score (TD + TI) :.....

EQUIPMENT NEEDS Describes the requirements for personal equipment			
E 0	No needs for special equipment	Basic Special Equipmt	Highly Specialist Equipmt
E 1	Requires basic special equipment (off the shelf)	Wheelchair/seating Pressure cushion Special mattress Standing frame off-shelf orthotic Other.....	Environmental control Communication aid Customised seating Customised standing aid Customised orthotic Assisted Ventilation Other.....
E 2	Requires highly specialist equipment Eg electronic assistive technology OR highly customized equipment made or adapted for for that individual		

TOTAL SCORE SUMMARY	Needs scores	Totals:		Currently gets	Reason for unmet need (eg Not available (NA), declined (D), or Other...)
Basic care and support (Includes risk management)	C:	Care	/ 4	C:	NA D Other..
Skilled Nursing	N:	Nursing	/ 4	N:	NA D Other..
Medical	M:	Medical:	/ 4	M:	NA D Other..
Therapy	TD:	Therapy:	/ 8	TD:	NA D Other..
	TI:			TI:	NA D Other..
Specialist equipment	E:	Equipm't	/ 2	E:	NA D Other..
Summed RCS			/ 22	Gets /22	

RCS – extended: Service Summary Sheet

CENTRE DETAILS	
Name of centre	
No of neuro-rehab beds	
Type of service	Complex specialised rehabilitation service
	Specialist rehabilitation service
	General rehabilitation service
Sample of patients	All current in-patients Selected sample from a total of

REHABILITATION COMPLEXITY SCORES for current in-patients: Date..../..../....

No.	Patient	Care	Risk	Nursing	Medical	Therapy		Equip.	Total	Comments
		C 0-4	R 0-4	N 0-3	M 0-3	TD 0-4	TI 0-4	E 0-2		
1										
2										
3										
4										
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Photocopy if necessary to include further patients.

The Rehabilitation Complexity Scale: extended

Further instructions for application

The version below provides more details instructions for rating

For each subscale, circle <u>highest level</u> applicable	
CARE or RISK Describes the level of support the patient needs for either basic self care or to maintain their safety NB: If not sure which to record, rate both CARE and RISK and use highest score	
BASIC CARE AND SUPPORT NEEDS Includes assistance for basic care activities (either physical help or stand0by supervision) Includes washing, dressing, hygiene, toileting, feeding and nutrition, maintaining safety etc.	
C 0	Largely independent. Manages basic self-care tasks largely by themselves. May have incidental help just to set up or to complete – e.g. application of orthoses, tying laces etc
C 1	Requires help from 1 person for most basic care needs ie for washing, dressing, toileting etc. May have incidental from a 2 nd person – e.g. just for one task such as bathing
C 2	Requires help from 2 people for the majority of their basic care needs
C 3	Requires help from ≥3 people for basic care needs
C 4	Requires constant 1:1 supervision e.g. to manage confusion and maintain their safety
RISK- COGNITIVE / BEHAVIOURAL NEEDS (An alternative care primarily for 'walking wounded' patients who may be able to manage all/most of their own basic care, but there is some risk for safety eg due to confusion, impulsive behaviour or neuropsychiatric disturbance) Includes supervision to maintaining safety or managing confusion eg in patients to have a tendency to wander, or managing psychiatric / mental health needs.	
R 0	No risk – Able to maintain their own safety and to go out unescorted Able to maintain their own safety at all times
R 1	Low risk – standard precautions only for safety monitoring within a structured environment But requires escorting outside the unit Maintains own safety within a structured environment, requiring only routine checks, but requires accompanying when outside the unit
R 2	Medium risk – additional safety measures <u>OR</u> managed under MHA section Additional safety measures even within a structured environment, eg alarms, tagging, or above standard monitoring (eg 1-2 hrly checks) <u>OR</u> managed under section of the Mental Health Act (time for additional paperwork etc)
R 3	High risk –Frequent observations (May also be managed under MHA section) Needs frequent observations even within a structured environment, eg ½ -1 hrly checks, or 1:1 supervision for part(s) of the day/night
R 4	Very high risk - Requires constant 1:1 supervision Needs 1:1 supervision all of the time

SKILLED NURSING NEEDS		
Describes the level of skilled nursing intervention form a qualified or specialist trained nurse		
N 0	No needs for skilled nursing – needs can be met by care assistants only	Tick nursing disciplines required: General registered nursing Rehab-trained nurses Mental Health (RMN) Palliative care nursing Specialist neuro nurse (eg MS, PD, MND) Other
N 1	Requires intervention from a qualified nurse (with general nursing skills and experience) e.g. medication, wound/stoma care, nursing obs, enteral feeding, setting up IV infusion etc)	
N 2	Requires intervention from nursing staff who are trained and experienced in rehabilitation e.g. for maintaining positioning programme, walking / standing practice, splint application, psychological support	
N 3	Requires highly specialist nursing care e.g. for very complex needs such as <ul style="list-style-type: none"> • Management of tracheostomy Management of challenging behaviour / psychosis / complex psychological needs • Highly complex postural, cognitive or communication needs • Vegetative or minimally responsive states, locked-in syndromes 	
N 4	Requires high dependency specialist nursing (high level nursing skills <u>and</u> intensive input) eg medically unstable, requiring very frequent monitoring/ intervention by a qualified nurse - hourly or more often, (usually also specialist training eg IV drug administration or ventilation etc).	
MEDICAL NEEDS		
Describes the approximate level of medical care environment for medical/surgical management		
M 0	No active medical intervention - Could be managed by GP on basis of occasional visits)	Tick medical interventions required: Blood tests Imaging (CT / MRI) Other Investigation State type..... Medication adjustment / monitoring Surgical procedure (eg tenotomy) State type..... Medical procedure (eg Botulinum toxin) State type..... Specialist opinion State discipline..... Medico-legal or capacity issues Other.....
M 1	Basic investigation / monitoring / treatment (Requiring non-acute hospital care, could be delivered in a community hospital with day time medical cover) i.e. requires only routine blood tests / imaging. Medical monitoring can be managed through review by a junior medic x2-3 per week, with routine consultant ward-round + telephone advice if needed)	
M 2	Specialist medical / psychiatric intervention - for diagnosis or management/procedures (Requiring in-patient hospital care in DGH or specialist hospital setting) i.e. requires more complex investigations, or specialist medical facilities e.g. dialysis, ventilatory support. Frequent or unpredictable needs for consultant input or specialist medical advice, surgical intervention , psychiatric evaluation/treatment.	
M 3	Potentially unstable medical /psychiatric condition - Requiring 24 hour on-site acute medical / psychiatric cover (depending on type of need) Potentially unstable: May require out-of hours intervention – e.g. for uncontrolled seizures, immuno-compromised condition, - or for psychiatric medical adjustment / emergency risk assessment etc) Needs to be managed in a setting where there is on-site 24 emergency medical /psychiatric cover.	
M 4	Acute medical / surgical problem (or psychiatric crisis) Requiring emergency out-of-hours, intervention Requires acute medical/surgical care e.g. infection, acute complication, post surgical care. ie actual involvement of the 24 hour medical (or surgical or psychiatric) services, whether on a planned or unplanned basis	

THERAPY NEEDS

Describes the

- a) number of different therapy disciplines required and
 b) intensity of treatment

Includes individual or group-based session runs by therapists, but NOT rehabilitation input from nursing staff which is counted in N2.

(NB The Northwick Park Therapy Dependency Assessment (NPTDA) can be used to calculate total therapy hours in more complex cases e.g. and provide more detailed information regarding time for each discipline etc. It also includes quantitative information on the rehabilitation time provided by nursing staff)

Therapy Disciplines: State number of different therapy disciplines required to be actively involved in treatment

TD 0	0 – no therapist involvement	Tick therapy disciplines required:		
TD 1	1 discipline only	Physio	Psychology	Orthotics
TD 2	2-3 disciplines	O/T	Counselling	Prosthetics
TD 3	4-5 disciplines	SLT	Music/art therapy	Rehab Engineer
TD 4	≥6 disciplines	Dietetics	Play therapy/school	Other:
		Social work	DEA/Jobcentre Plus	
		Other	Recreational therapy	
			Other	

Therapy Intensity: State overall intensity of trained therapy intervention required from team as a whole

TI 0	No therapy intervention (Or a total of <1 hour therapy input per week - Rehab needs are met by nursing/care staff or self-exercise programme)
TI 1	Low level – less than daily (eg assessment / review / maintenance / supervision) <u>OR Group therapy sessions only</u> (ie Patient does not receive therapy sessions every day (or has <1 hour therapy per day) This usually means that a) they currently have mainly needs for care, nursing or medical treatment, or b) they are on a low intensity review only or group-based programme – or c) they are on a winding-down programme in preparation for discharge)
TI 2	Moderate – daily intervention - individual sessions with one therapist to treat for most sessions <u>OR very intensive Group programme</u> of ≥6 hours/day (ie Patient may have treatment from a number of different therapists (see TD), but is treated by one therapist at a time They will normally have therapy sessions every day 5 days a week, for a total of 2-3 hours per day (some of which may be periods of self-exercise under distant supervision if they are able) Or they have therapy in group based sessions on a very intensive basis (> 6 hours per day spent in group sessions)
TI 3	High level – Daily intervention with therapist PLUS assistant and/or additional group sessions Patient requires a second pair of hands for some treatment sessions, treatments (eg physical handling) and so is treated by a therapist with an assistant (who may be unqualified) OR they require an intensive programme ≥25 hours of total therapy time per week, (eg 4-5 hours per day 5 days per week) some of which may be sessions with a therapy assistant, or group-based sessions in addition to their individual daily therapy programme
TI 4	Very High level – very intensive (eg 2 trained therapists to treat, or total 1:1 therapy >30 hrs/week) Patient has very complex therapy needs requiring two trained therapists at a time (with or without a 3 rd assistant) – eg for complex physical handling needs, management of unwanted behaviours etc OR they require a very intensive programme involving > 30 hours of total therapy time per week.

Total Total T score (TD + TI) :.....

EQUIPMENT NEEDS

Describes the requirements for personal equipment

E 0	No needs for special equipment	Basic Special Equipmt	Highly Specialist Equipmt
E 1	Requires basic special equipment (off the shelf)	Wheelchair/seating Pressure cushion Special mattress Standing frame off-shelf orthotic Other.....	Environmental control Communication aid Customised seating Customised standing aid Customised orthotic Assisted Ventilation Other.....
E 2	Requires highly specialist equipment (eg Electronic assistive technology or highly customized equipment that is made or adapted specifically for that individual)		