

The Oxford Case Complexity Assessment Measure

An introduction

This is the front page introducing the Oxford Case Complexity Assessment Measure. Its original reference is:

Troigros O, Béjot Y, Rodriguez PM, Shoaib F, Ellis H, Wade D.
Measuring complexity in neurological rehabilitation: the Oxford Case Complexity Assessment Measure (OCCAM).
Clinical Rehabilitation. 2014;28(5):499-507. doi:10.1177/0269215513505300

The following pages are:

- a) a brief introduction to its use (one page)
- b) a more detailed form giving short guidance on each of the 27 items (eight pages)
- c) a summary sheet for one patient which could be used in a record (two pages)

There is also an Excel spreadsheet available (see link on the web page) on which you can keep a record of scores across a group of patients.

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OCCAM-Case
Clinical case-complexity factors

Domain/item	Sc	Comment
Pathology		
Active disease		
Physiological stability		
Impairment		
Cognition		
Movement/posture		
Excretion		
Sensory functions		
Emotions		
Pain		
Swallow/eating		
Endurance/fatigue		
Activities		
Mobility		
Dexterity		
Personal activities		
Communication		
Social interaction		
Domestic/household		
Vocational		
Social Roles		
Role functions		
Total - patient		

OCCAM-Case
Contextual case-complexity factors

Domain/item	Sc	Comment
Physical context		
Accommodation		
Adaptation/equipment		
Social context		
Support from others		
Adverse effect others		
Personal context		
Personal beliefs		
Childhood		
Time		
Prognosis		
Healthcare		
History		
Organisations involved		
Total - context		

Add other comments here:

The Oxford Case Complexity Assessment Measure (OCCAM)

Domain	Score levels		Comment & guidance
Pathology			Disease and physiology
Number of active diseases. <i>Last two weeks</i>	0	Only one active disease	<p><i>Consider disorders affecting organs. Only major psychiatric diagnoses are considered diseases (e.g. psychotic disorders).</i></p> <p>An active disease is a pathology, preferably proven, that requires continuing positive action (diagnosis and/or initiation or monitoring of specific treatment)</p> <p>Secondary pathology (i.e. 'complications') is considered as a separate disease.</p>
	1	Two active diseases,	
	2	Three active diseases	
	3	Four or more active diseases	
Physiological stability. <i>Last two weeks</i>	0	Stable; no concerns about any system	<p><i>Consider physiological stability, judged by frequency of monitoring (more than daily = unstable).</i></p> <p>Domains:</p> <ul style="list-style-type: none"> ◆ Respiration and breathing ◆ Heart and circulation ◆ Neurological and level of consciousness ◆ Blood, temperature, renal function
	1	One domain needs monitoring, or is unstable	
	2	Two domains are unstable	
	3	Three domains are unstable	
Impairment			Symptoms, signs, experience
Cognition <i>Last two weeks</i>	0	No impairment of any cognitive process	<p><i>The impairment is considered significant if it is sufficient to cause disruption of activities.</i></p> <p>Consider three domains:</p> <ul style="list-style-type: none"> ◆ Memory & attention; e.g. forgetful, easily distracted, confused about facts. ◆ Perception & analysis; e.g. misunderstands situations, misinterprets sensory input, confused about situation ◆ Initiation & planning; e.g. does not initiate and/or sequence activities successfully, confused about actions
	1	Significant impairment in one domain	
	2	Significant impairment in two domains	
	3	Significant impairment in three domains	
Movement & posture <i>Last two weeks</i>	0	No motor impairment	<p><i>This considers motor control of the limbs and trunk (not face).</i></p> <p>The types of impairment may include:</p> <ul style="list-style-type: none"> ◆ Ataxia / in-coordination / unsteadiness ◆ Weakness / paralysis (any cause) ◆ Involuntary movement / tremor ◆ Restricted range of movement at joints (any cause)
	1	One limb only affected	
	2	Two limbs, or trunk and one limb affected	
	3	Greater amount affected	

Domain		Score levels	Comment & guidance
Excretion <i>Last two weeks</i>	0	Full control bowels and bladder	<i>This considers control over excretion; toileting is different.</i>
	1	Reduced control of bowel or bladder	Reduced control means any alteration such as needing to wake at night, having to go quickly, occasional incontinence.
	2	Reduced control of bowel and bladder; or complete loss of control over one	Catheterisation implies complete loss of control of bladder.
	3	No control over bowel or bladder	
Sensory functions <i>Last two weeks</i>	0	No alteration	<i>This refers to sensory pathways. For each domain, the alteration has to affect the person's functioning to be scored. Score using any aids used (glasses, hearing aid)</i>
	1	Alteration in one domain, affecting activities	Domains:
	2	Alteration in two domains, affecting activities	◆ Vision / seeing (inc. double vision); affects reading, finding way around, daily and leisure activities, safety.
	3	Alteration in three domains, affecting activities	◆ Hearing; affects communication, safety ◆ Somatic/visceral (i.e. bodily); affects mobility, dexterity, safety. Pain is considered separately.
Emotion <i>Last two weeks</i>	0	Normal emotions including non-disruptive changes appropriate to situation	<i>This refers to a person's emotional state (depression, anxiety, panic, fear), primarily judged by their self-report.</i>
	1	Minor distress, intermittently present, minor effect on life	<i>To be significant the disturbance should cause distress to the patient, or should alter life such as by changing sleep, avoiding social contact, stopping activities.</i>
	2	Moderate distress, present most of the day and altering life	<i>If fluctuates markedly, consider worst state lasting over one hour.</i>
	3	Severe distress, preventing many activities	
Pain <i>Last two weeks</i>	0	No significant pain; no regular medication	<i>This refers to the patient's self reported pain.</i>
	1	Regular, daily medication; controlled most of the time, not altering life (activities)	Medication refers to any drugs or other treatments (e.g. TENS) used to reduce, prevent or control pain.
	2	Regular medication; not well controlled, alters some life (activities)	Alteration in life means reducing, stopping or changing manner of any activity more than once a day
	3	Regular medication; poor control, most activities altered	Poor control means that patient is always suffering (their judgment)

Domain		Score levels	Comment & guidance
Swallow & eating <i>Last two weeks</i>	0 1 2 3	No problems chewing and swallowing One domain positive Two domains positive Three domains positive; or uses a gastrostomy, or other enteral feeding	<i>This refers to the process of ingesting food (nutrition) and fluid (hydration).</i> Domains: <ul style="list-style-type: none"> Speed/time taken. Positive if more than 30 minutes for main meal Alteration in diet or fluids. Positive if soft diet or thickened fluids. Safety. Positive if chokes more than once in a meal despite appropriate diet etc
Endurance (fatigue, shortness of breath, pain on exercise etc) <i>Last two weeks</i>	0 1 2 3	No limitation of normal activities by symptoms over at least 35 minutes Upper limit of a normal activity is 30 minutes Upper limit of a normal activity is 15 minutes Upper limit of a normal activity is 5 minutes or less	<i>This refers to a person's ability to continue at an activity without a symptom (such as fatigue, shortness of breath or pain) being the prime reason for stopping a normal activity sooner than desired and than would usually be achieved by most people.</i> Normal activity refers to any daily activity including reading or conversing; it does not include sport or keep fit activities. <i>In people with fluctuating endurance, consider the 'average' over the last two weeks.</i>
Activities			Goal directed behaviours, disability
Mobility <i>Last two weeks</i>	0 1 2 3	Normal independent mobility (RMI 14 or 15/15) Reduced walking, or uses any equipment from time to time (RMI 8 – 13/15) Needs equipment at all times, but can move self, with or without help (RMI 3 – 7/15) Unable to move at all without help (RMI 0 – 2/15)	<i>This refers to independent mobility of the person about their environment.</i> Equipment means anything not used normally (sticks, orthoses, wheelchairs, hoists, grab rails etc). Move self means getting from place to place under patient's own control which may include the use of a wheelchair by the patient. RMI = Rivermead Mobility Index score
Dexterity <i>Last two weeks</i>	0 1 2 3	Normal, bilateral arm function One arm affected but still some function, other arm full function Both arms affected, but with some function; or complete loss of one arm function Both arms affected, severe loss of function.	<i>This refers to the use of arms and hands.</i> Some function means can use in an activity separately or bimanually. Complete loss means not used for any activity even for assistance. Severe loss means unable to feed self using arms. Activities to consider are feeding, dressing and doing buttons, carrying things, using phones, cooking, grooming.

Domain		Score levels	Comment & guidance
Personal Activities <i>Last two weeks</i>	0	Independent (no hands-on or supervisory support) in all domains	<i>This refers to the range of personal care activities covered in Activity of Daily Living indices.</i>
	1	Support (hands-on, supervision) in one domain	<i>The following five domains should be considered:</i> <ul style="list-style-type: none"> ◆ Dressing and grooming (doing hair, washing face, shaving) ◆ Bathing/showering (washing all over) ◆ Feeding self ◆ Getting about within accommodation ◆ Using toilet, or managing excretion (e.g. colostomy, urine drainage devices)
	2	Support in two or three domains	
	3	Support in four or more domains	
Communication <i>Last two weeks</i>	0	Able to express self fully and understand others normally	<i>This refers to a person's ability to communicate their ideas and wishes, and to understand others.</i>
	1	Communication limited in some way, but competent for simple communication in both domains	<i>The following two domains or aspects are considered:</i> <ul style="list-style-type: none"> ◆ Being able to follow a three stage command ("before action 2, please undertake action 1"). The command may be given orally or in others ways (e.g. written, gesture) ◆ Being able to give a complex command ("Please do action 1 and then do unrelated action 2"). This may be orally or in other ways (e.g. by writing or using aid to communication, or gesture).
	2	Competent for simple communication only in one domain	
	3	No consistent communication	
Social interaction <i>Last two weeks</i>	0	Normal social interaction with others	<i>This refers to the style of interaction between the person and other people (family, friends, staff, public etc).</i>
	1	Interaction with others is reduced ; less initiation by the person and/or limited response to other people.	<i>Tolerated means that no-one is persistently upset or afraid, although they may avoid the person.</i> <i>Interaction refers to any aspect of the social behaviour – speech (e.g. swearing, threats), actions, or other features.</i>
	2	Interaction is occasionally upsetting to others (including aggression) but is tolerated, or places the person at risk.	<i>Level 2 includes threats, being rude or unpleasant, or being over-familiar and disinhibited sufficient to cause risk to the person of being taken advantage of (i.e. being a vulnerable adult)</i> <i>Occasional means no more than twice daily</i>
	3	Interaction is frequently and/or severely abnormal – physically aggressive, not tolerated	

Domain	Score levels	Comment & guidance
Domestic & household activities <i>Last two weeks</i>	0 Can undertake all household activities needed 1 Needs help in one domain 2 Needs help in two domains 3 Needs help in three or more domains	<p><i>This refers to activities undertaken in the house. If the person is in hospital or a residential place, score on what they have achieved in that setting even if not routinely done</i></p> <p><i>There are three domains:</i></p> <ul style="list-style-type: none"> ◆ Food preparation, cooking and washing up ◆ Keeping house adequately clean. ◆ Getting shopping (including any travel needed) but may use Internet
Vocational activities <i>Last two weeks</i>	Undertakes independently (without being prompted) activities: 0 in at least three domains. 1 in two domains. 2 in one domain 3 Not at all	<p><i>This refers to other productive or meaningful activities. If the person is in hospital or a residential setting, score what they have achieved in that setting even if not routinely done.</i></p> <p><i>There are four domains:</i></p> <ul style="list-style-type: none"> ◆ Productive work, paid or unpaid, including caring for dependents (adult or child) ◆ Housecare – gardening, D-I-Y around house, managing affairs ◆ Leisure activities and hobbies ◆ Social activities outside house - provided they are chosen and wanted by the person (i.e. not simply being taken somewhere as company)
Social roles		Participation in society
Role functions <i>Last month</i>	Has one or more roles in relation to: 0 Three domains 1 Two domains 2 One domain 3 None (may still have roles in own accommodation, e.g. with family)	<p><i>This refers to the person being an active participant in a social network or group with a specific status or role within that group.</i></p> <p><i>Note: roles entirely with people that share the accommodation and roles that relate only to paid carers are not included. For people in hospital or residential setting, it refers to the social contacts the person has with visitors from these domains.</i></p> <p><i>There are three domains:</i></p> <ul style="list-style-type: none"> ◆ Family from outside accommodation ◆ Friends from outside accommodation ◆ People from organisations (work, clubs etc)
Physical context		Physical environment

Domain	Score levels	Comment & guidance
Accommodation <i>Occupied or available now</i>	<p>Number of domains failed:</p> <p>0 No problems in any domain</p> <p>1 One domain fails</p> <p>2 Two domains fail</p> <p>3 Three domains fail: no accommodation available, or available accommodation cannot be adapted to needs</p>	<p><i>This refers to the accommodation available to the person now, usually that lived in prior to admission (or lived in now if not in hospital).</i></p> <p><i>It is graded (0-3) according to its suitability or availability for the patient as she/he is at the time of assessment and according to the safety of person in accommodation.</i></p> <p><i>There are three domains:</i></p> <ul style="list-style-type: none"> ◆ <i>Having accommodation available that could if necessary be adapted</i> ◆ <i>Getting into and out of house safely</i> ◆ <i>Getting to toilet, kitchen, living area, bathroom and bedroom</i>
Adaptations / equipment needed. <i>Last two weeks</i>	<p>0 Does not need / use any specific change in context</p> <p>1 Needs change in one domain</p> <p>2 Needs change in two domains</p> <p>3 Needs change in three domains</p>	<p><i>This refers to any equipment or change that the person requires that is specific to them and is a response to their condition. The domains are based on (a) size and (b) being fixed in space.</i></p> <p><i>The score concerns equipment/adaptations needed, and anything already provided or changed is not scored.</i></p> <p><i>There are three domains:</i></p> <ul style="list-style-type: none"> ◆ <i>Small, movable, peri-personal: orthoses, prostheses, adapted small items, clothes, portable mobility aids, communication aids etc</i> ◆ <i>Large, but personal: wheelchairs, special seating etc</i> ◆ <i>Fixed, environmental: rails, ramps, lifts, hoists etc. This usually applies to the home, and if someone is in hospital this is scored in relation to their anticipated accommodation.</i>
Social context		Social support and network
Support from family and friends <i>Last two weeks</i>	<p>Has active support available from:</p> <p>0 Three or four domains</p> <p>1 Two domains</p> <p>2 One domain</p> <p>3 No domain</p>	<p><i>Active support refers to an expressed commitment to visit and provide emotional or practical support even if the person is not initiating it.</i></p> <p><i>For someone in hospital or a residential setting, score according to support received or credibly offered on discharge.</i></p> <p><i>Domains:</i></p> <ul style="list-style-type: none"> ◆ <i>Family/friends living in same accommodation</i> ◆ <i>Family living outside accommodation</i> ◆ <i>Friends from outside accommodation</i> ◆ <i>People from organisations (work, clubs etc)</i>

Domain	Score levels	Comment & guidance
Needs of family and friends <i>Last two weeks</i>	Added input needed in: 0 No domains 1 One domain 2 Two domains 3 All three domains	<p><i>This refers to the attitudes, expectations and behaviours of family and others closely related to the patient, concerning their influence upon the patient's health-related behaviour.</i></p> <p><i>Consider three domains that others may influence:</i></p> <ul style="list-style-type: none"> ◆ <i>Encouragement of the patient to go against advice (passive)</i> ◆ <i>Involvement of the patient in activities against patient's best interests (active)</i> ◆ <i>Requiring/demanding input for themselves from services, including having previously been dependent upon the patient</i>
Personal context		Personal attributes
Personal beliefs <i>Last two weeks</i>	0 Understands and accepts situation and expected future 1 Understands situation and expected future; complies with plans but expresses frequent reservations 2 Actions show failure of understanding of or agreement with situation and plans; still complies occasionally 3 Seems to have minimal or no agreement or understanding; no compliance	<p><i>This section concerns the attitude and expectation of the patient in relation to their illness. It encompasses the phenomenon of insight (= failure of understanding).</i></p> <p><i>The scoring depends upon a judgment based on:</i></p> <ul style="list-style-type: none"> ◆ <i>Actions rather than words; if a person acts one way and talks another, base grading on action</i> ◆ <i>Frequency and consistency of actions and words; occasional comments can be discounted</i>
Childhood <i>Past history</i>	0 Stable childhood with two parents until 16 years 1 Experienced trouble in one domain 2 Experienced trouble in two domains 3 Experienced trouble in three domains	<p><i>This concerns the patient's background upbringing; the answer is based on best available evidence which may often be incomplete. (It is not always appropriate to raise these issues directly, though it may help.)</i></p> <p><i>There are three domains:</i></p> <ul style="list-style-type: none"> ◆ <i>Disrupted parenting: death, divorce, domestic violence etc</i> ◆ <i>Abuse reported: psychological, emotional, sexual</i> ◆ <i>Disrupted schooling: moving schools, truanting, excluded from school</i>
Time		History and prognosis

Domain	Score levels	Comment & guidance
Prognosis for condition <i>At time of scoring</i>	0 Condition stable, life expectancy over one year 1 Condition likely to improve, life expectancy over one year 2 Condition likely to deteriorate, life expectancy over 12 months 3 Condition <ul style="list-style-type: none"> • fluctuates markedly, or • unpredictable, or • life expectancy under one year 	<p>This refers to overall prognosis taking into account all diseases and any other factors such as seizures, skin pressure ulcers, and infections.</p> <p>Condition refers to the person's overall state, whatever the causes are. It includes but is not limited to the main diagnosis.</p> <p>The factors to consider are:</p> <ul style="list-style-type: none"> • change: improving, stable, or worsening • life expectancy: more or less than 12 months • predictability: marked fluctuation over four weeks, or very unpredictable over four months
Healthcare		Organisation/history
History of healthcare use <i>Up to this point</i>	Use of hospitals 0 Only used for this condition and only used over last one year 1 One domain positive 2 Two domains positive 3 Three domains positive	<p>This refers to use of hospital (secondary or tertiary) care health resources. The use of general practitioner services or community services is not considered.</p> <p>Three domains of hospital use considered:</p> <ul style="list-style-type: none"> ◆ Used for other conditions (not only main condition) ◆ Involved for more than one year ◆ More than one inpatient spell
Organisations involved <i>At the time of scoring</i>	0 Only own service/organisation involved 1 One other service group actively involved 2 Two other service groups actively involved 3 Three or more service groups actively involved	<p>This refers to other organisations actively involved (over and above current organisation).</p> <p>Active involvement means accepting a continuing responsibility (i.e. the case is 'active'), not just being available.</p> <p>Organisations to consider include:</p> <ul style="list-style-type: none"> ◆ Other local secondary care (hospital) services outside own service ◆ Tertiary health care (regional or national services) ◆ Community care services (excluding general practitioner) ◆ Social services ◆ Housing services ◆ Employment or education services