

Attachment E - Modified Barthel Index

Sources:

Shah, S., Vanclay, F., Cooper, B. (1989). Improving the sensitivity of the Barthel Index for stroke rehabilitation. *Journal of Clinical Epidemiology*, 42(8), 703-709.

Shah, S. (1998). Modified Barthel Index or Barthel Index (Expanded). In S. Salek. (Ed). Compendium of quality of life instruments Part II. Chichester: Wiley and Sons.

(Notes in parenthesis are to facilitate application)

Personal Hygiene

1. The patient is unable to attend to personal hygiene and is dependent in all aspects.

[Patient is totally dependent on assistance to brush teeth/denture, comb hair, wash hands, wash face, shave and/or apply make-up.]

2. Assistance is required in all steps of personal hygiene.

[Patient may complete one or two of the above activities. Generally requires assistant to provide more effort than self for each of the activities, loosen dentures, shave etc.]

3. Some assistance is required in one or more steps of personal hygiene.

[Assistance is required in applying make-up, help to wash one hand, help to apply pressure to brush teeth, shave under chin, comb back of hair, help to dry one hand. Needs constant cueing or coaxing to complete tasks.]

4. Patient is able to conduct his/her own personal hygiene but requires minimal assistance before and/or after the operation.

[There may be concerns about safety such as plugging in plug, fixing a razor blade, hot water or some assistance may be required with set up and/or tidy up or smoothing smudged make-up.]

5. The patient can wash his/her hands and face, comb hair, clean teeth and shave. A male patient may use any kind of razor but must insert the blade, or plug in the razor without help, as well as retrieve it from the drawer or cabinet. A female patient must apply own make-up, if used, but need not braid or style her hair.

[Patient can perform all personal hygiene tasks independently and safely.]

Bathing Self

1. Total dependence in bathing self.

[Patient is totally dependent in bathing self, or bathing is not performed or drying all parts of the body is not performed.]

2. Assistance is required in all aspects of bathing.

[Patient requires assistance and direction in all aspects of bathing. Maybe able to wash chest and both arms.]

3. Assistance is required with either transfer to shower/bath or with washing and drying; including inability to complete a task because of condition or disease, etc.

[Assistance is required with either transfer to shower/bath or washing/drying. Help with bathmit, soap, towel, wash cloth, upper and/or lower limbs may be required. Patient may need cueing, coaxing and supervision.]

4. Supervision is required for safety in adjusting the water temperature, or in the transfer.

[Bathing may take more than three times the normal time. Assistance may be required to set up bathing equipment, the water, washing material, etc. Some prompting or supervision with transfers may be required.]

5. The patient may use a bath tub, shower, or take a complete sponge bath. The patient must be able to do all the steps of whichever method is employed without another person being present.

[Patient may use specialised equipment, long-handled sponge to wash legs and feet. Patient is able to complete all steps independently, and may take up to twice the normal time to complete the tasks.]

Feeding

1. Dependent in all aspects and needs to feed.

[Patient only chews and swallows food while an assistant scoops and brings it to mouth. Maximum help with tube feeding such as pouring, connecting, purging, regulating the rate is required.]

2. Can manipulate an eating device, usually a spoon, but someone must provide active assistance during the meal.

[Patient can bring food to mouth but an assistant scoops all food onto the utensil.]

3. Able to feed self with supervision. Assistance is required with associated tasks such as putting milk and sugar into tea, adding salt and pepper, spreading butter, turning a plate or other "set up" activities.

[Patient scoops food, brings it to mouth, and eats. May need assistance with pouring, drinking, opening containers and/or cutting meat, with application of cuff, orthosis, prosthesis. Assistance with set up is required. Standing by cueing, coaxing and supervision throughout meal may be required for possible choking and eating in a hurry.]

4. Independence in feeding with prepared tray except assistance may be required to cut meat, open milk carton, jar lid etc. Presence of another person is not required.

[Longer than usual time is taken to eat. There may be some concern for safety due to quality of swallowing or may require modified food for consistency, but no further help from assistant is required.]

5. The patient can feed self from tray or table when someone puts the food within reach. The client must put on an assistive device if needed, cut the food, and, if desired, use salt and pepper, spread butter etc.

[The patient is able to use spoon, fork, cup, glass, long straw, adapted devices, cuff, opens containers, pours liquid, and cuts meat with no risk. No help required.]

Toilet

1. Fully dependent in toileting.

[Patient is dependent in all aspects of toileting.]

2. Assistance required in all aspects of toileting.

[Patient requires maximal assistance with transfers, clothing adjustment, use of toilet paper and perineal hygiene.]

3. Assistance may be required with management of clothing, transferring, or washing hands.

[Supervision and assistance with transfer/balance while washing hands, adjusting clothing, with zipping/unzipping fly/skirt, may be required.]

4. Supervision may be required for safety with normal toilet. A commode may be used at night but assistance is required for emptying and cleaning.

[Supervision for safety, initial preparation such as handing the patient the toilet tissue may be required. May use commode at night. Prompting and cueing to locate toilet may be required.]

5. The patient is able to get on and off the toilet, fasten and unfasten clothes, prevent soiling of clothes and use of toilet paper without help. If necessary, the client may use a bedpan or commode, or urinal at night, but must be able to empty it and clean it.

[Patient adjusts clothing prior to using the toilet, wipes front or back, approaches, gets on and off the toilet, adjusts clothing after using the toilet, and fastens clothing. Can use required equipment such as tongs, dressing stick, zipper-pull, or grab bars. Maintains balance and is safe.]

Stair Climbing

1. The patient is unable to climb stairs.

[The stairs imply a flight of stairs.]

2. Assistance is required in all aspects of stair climbing, including assistance with walking aids.

3. The patient is able to ascend/descend but is unable to carry walking aids, and needs supervision and assistance.

4. Generally, no assistance is required. At times, supervision is required for safety due to morning stiffness, shortness of breath, etc.

5. The patient is able to go up and down a flight of stairs safely without help or supervision. The patient is able to use hand rails, cane or crutches when needed and is able to carry these devices as he/she ascends or descends.

[Patient adjusts clothing prior to using the toilet, wipes front or back, approaches, gets on and off the toilet, adjusts clothing after using the toilet, and fastens clothing. Can use required equipment such as tongs, dressing stick, zipper-pull, or grab bars. Maintains balance and is safe.]

Dressing

1. The patient is dependent in all aspects of dressing and is unable to participate in the activity.

[Patient may lean forwards, backwards, may be able to use bed side rails, may thread a sleeve or bring a garment together, but the assistant dresses client totally. If patient wears a gown, the score is 0.]

2. The patient is able to participate to some degree, but is dependent in all aspects of dressing.

[Patient requires maximal assistance in set up dressing. Patient may wear a sweat shirt on his upper body and thread the sleeves, but assistant brings it over the head. Patient can thread bra straps but the assistant fits and fastens the bra hook. Patient may assist pulling the pant legs but the assistant completes the lower limb dressing.]

3. Assistance is needed in putting on and/or removing any clothing.

[Assistance is needed in obtaining clothing, applying devices, and initiating and completing upper and lower extremity dressing and undressing.]

4. Only minimal assistance is required with fastening clothing, such as buttons, zips, bra, shoes, etc.

[Patient may require start up assistance but patient dresses and undresses. Assistant may obtain clothing from closet, may assist in application of orthosis or prosthesis, and may assist with fastening clothing, buttons, zips, bra etc. Coaxing, prompting and/or cueing on sequencing may be required and dressing may take up to three times the normal time.]

5. The patient is able to put on, remove and fasten clothing, tie shoe laces, or put on, fasten and remove corset or brace as prescribed.

[Patient is able to obtain clothes, put on, remove and fasten clothing and shoe laces, or put on, fasten and remove corset, brace or prosthesis as prescribed. Patient manages underpants slacks, skirt, belt, stockings and shoe laces. Patient manages bra, turtle necks, zippers, buttons and snaps, and can use special adaptive closure such as velcro and zipper pull, and dressing stick, reacher, sock aid, and completes task in reasonable time.]

Bowel Control

1. The patient is bowel incontinent.

[The patient needs to wear diapers, or absorbent pads.]

2. The patient needs help to assume appropriate position, and with bowel movement facilitatory techniques.

[Despite assistance, patient may be soiled frequently and necessitates wearing absorbent pads.]

3. The patient can assume appropriate position, but cannot use facilitatory techniques, or clean self without assistance, and has frequent accidents.

Assistance is required with incontinence aids, such as pads etc.

[Patient can assume position, but has occasional accidents, needs assistance to clean self and/or to apply incontinence aids.]

4. The patient may require supervision with the use of suppository or enema, and has occasional accidents.

[Patient requires supervision with the use of suppository, enema, or an external device. Bowel accidents are rare, and prompting, cueing and adherence to the routine to maintain continence may be required.]

5. The patient can control bowels completely and has no accidents. Can use suppository, or take an enema when necessary.

[Patient can control bowels completely and intentionally and has no accidents, can use digital stimulation or stool softeners, suppositories, laxative use, or enemas on a regular basis. If patient has colostomy he/she maintains it.]

Bladder Control

1. The patient is dependent in bladder management, is incontinent, or has indwelling catheter.

[Patient may be catheterised, is incontinent of urine day and night, wet on daily basis. External catheter, drainage bag, night bag, all require to be cared for by assistant.]

2. The patient is incontinent but is able to assist with the application of an internal or external device.

[Patient requires to be positioned but can hold bedpan or urinal in place. External urinary drainage devices, tubing drainage bag, all require to be cared for. Patient is incontinent but able to assist with application of devices.]

3. The patient is generally dry by day, but not at night, and needs assistance with devices.

[Patient voids but needs help in positioning self, equipment, pads, and other devices. Can place penis in the urinal, hold legs apart, insert catheter, and is occasional incontinent. Coaxing, cueing and supervision may be required.]

4. The patient is generally dry by day and night but may have an occasional accident, or need minimal assistance with internal or external devices.

[If unable to find toilet or of not quick enough, patient may have an accident. May require minimal assistance with set-up and/or devices, may need medication to maintain voiding pattern. Prompting, cueing and adherence to the routine to maintain continence may be required.]

5. The patient is able to control bladder day and night and/or is independent with internal or external devices.

[Patient is independent, is continent, and independent in the use of equipment required and use of medication. Is able to change pads, diapers, before soiling.]

Ambulation

1. Dependent in ambulation.

[Patient does not ambulate. To attempt to ambulate requires two assistants.]

2. Constant presence of one or more assistants is required during ambulation.

[Patient requires maximal assistance to ambulate.]

3. Assistance is required with reaching aids and/or their manipulation. One person is required to offer assistance.

[Patient requires assistant to reach for walking aids and to provide a steady effect around corners, over thresholds, and over rougher terrains, but is able to ambulate.]

4. The patient is independent in ambulation but unable to walk 50m without help or supervision is needed for confidence or safety in hazardous situations.

[Patient may require cueing and prompting, and more than reasonable time to complete distances.]

5. The patient must be able to wear braces if required, lock and unlock these braces, assume standing position, sit down and place the necessary aids in position for use. The patient must be able to use crutches, canes, or walkerette and walk 50m/yds without help or supervision.

[Patient walks length of corridor back and forth. There is no concern for safety, falling or wandering. Patient is independent with walker, cane, prosthesis, orthosis, special shoe etc.]

Do not score ambulation if patient is unable to ambulate and is trained in wheelchair management.

Or Wheelchair

1. Dependent in wheelchair ambulation.

2. The patient can propel self short distances on flat surface but assistance is required for all other steps of wheelchair management.

[Assistant needs to push wheelchair for the majority of the time, is especially required to apply brakes, adjust armrests, cushion, manoeuvre around furniture, over ledges, loose rugs, and rougher terrains.]

3. Presence of one person is necessary and constant assistance is required to manipulate chair to table, bed, etc.

[Patient can propel wheelchair, but needs assistance with manoeuvring in and around furniture and in limited spaces.]

4. The patient can propel self for a reasonable duration over regularly encountered terrain. Minimal assistance may be required in tight corners.

[Occasional verbal prompting and assistance with manoeuvring in limited spaces may be required.]

5. To propel wheelchair independently the patient must be able to go around corners, turn around, manoeuvre the chair to a table, bed, toilet, etc. The patient must be able to push the chair at least 50 m/yards.

Not applicable if patient is able to ambulate.

Chair/bed transfers

1. Unable to participate in transfer. Two attendants are required to transfer the patient with or without a mechanical device.

2. Able to participate, but maximum assistance of one other person is required in all aspects of the transfer.

3. The transfer requires assistance of one other person. Assistance may be required in any aspect of the transfer.

4. The presence of another person is required, either as a confidence measure, or to provide supervision for safety.

[Can position sliding board or move footrest or set-up, position chair, and lock brakes. Minimal help is required.]

5. The patient can safely approach the bed in a wheelchair, lock the brakes, lift the footrests, move safely to bed, lie down, come to a sitting position on the side of the bed, change the position of the wheelchair, transfer back into it safely. The patient must be independent in all phases of the activity.

[Patient can come to a standing position if walking is the mode of locomotion. If walking, client approaches, sits down, and gets to a standing position from a regular chair, transfers from bed to chair, performs tasks safely. Can approach, enter, and leave a tub or shower stall. Patient may use a sliding board, a lift, grab bars, or special seat. Patient may take more than the usual time, but less than three times the usual time to perform tasks.]

The following Table sets out the way in which the Modified Barthel Index is scored

Item	Unable to perform task	Substantial help required	Moderate help provided	Minimal help required	Fully independent
Personal hygiene	0	1	3	4	5
Bathing self	0	1	3	4	5
Feeding	0	2	5	8	10
Toilet	0	2	5	8	10
Stair climbing	0	2	5	8	10
Dressing	0	2	5	8	10
Bowel control	0	2	5	8	10
Bladder control	0	2	5	8	10
Ambulation	0	3	8	12	15
or Wheelchair*	0	1	3	4	5
Chair/Bed transfer	0	3	8	12	15

*Score only if patient is unable to ambulate and is trained in wheelchair management

The following Table sets out the dependency needs

Categories	MBI Total Scores	Dependency Level	Hours of Help Required per Week (maximum)
1	0 - 24	Total	27.0
2	25 - 49	Severe	23.5
3	50-74	Moderate	20.0
4	75 – 90	Mild	13.0
5	91 - 99	Minimal	< 10.0

Example

A.D.L INDEX						
PATIENTS NAME: FILE NO:						
ITEMS	ADMISSION DATE	IN-CARE DATE	IN-CARE DATE	IN-CARE DATE	DISCHARGE DATE	FOLLOW-UP DATE
Personal hygiene	&					

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