

Table S1: Linking between Brief ICF Core Set for Rheumatoid Arthritis (RA) and the DASH.

Brief Core Set for RA ICF Components, Codes, Categories and Titles:	DASH Item (and ICF sub-codes if applicable)
<u>1 BODY FUNCTIONS:</u>	
b130 Energy and drive functions	
b134 Sleep functions	29. During the past week, how much difficulty have you had in sleeping because of the pain in your arm, shoulder or hand
b152 Emotional functions	
b180 Experience of self and time functions	
b1801 Body image	
b2800 Generalized pain	
b2801 Pain in body part	
b28010 Pain in head and neck	
b28013 Pain in back	
b28014 Pain in upper limb	24 Arm, shoulder or hand pain 25 Arm, shoulder or hand pain when performing specific activities
b28015 Pain in lower limb	
b28016 Pain in joints	24 Arm, shoulder or hand pain 25 Arm, shoulder or hand pain when performing specific activities.
b430 Haematological system functions	
b510 Ingestion functions	
b640 Sexual functions	
b7102 Mobility of joints generalized	19 Recreational activities in which you move your arm freely (e.g. playing Frisbee, badminton etc)
b715 Stability of joint functions	
b740 Muscle endurance functions	
b770 Gait pattern functions	

b7800 Sensation of muscle stiffness	28. Stiffness in your arm, shoulder or hand.
<u>2 BODY STRUCTURES:</u>	
s73001 Elbow joint	
s73011 Wrist joint	
s7302 Structure of hand	
s73021 Joints of hand and fingers	
s73022 Muscles of hand	
s75001 Hip joint	
s75011 Knee joint	
s7502 Structure of ankle and foot	
s760 Structure of trunk	
s7600 Structure of vertebral column	
s76000 Cervical vertebral column	
s770 Additional musculoskeletal structures related to movement	
s810 Structure of areas of skin	
<u>3 ACTIVITIES AND PARTICIPATION:</u>	
d170 Writing	2 Write
d360 Using communication devices and techniques	
d415 Maintaining a body position	
d430 Lifting and carrying objects	10 Carry a shopping bag or briefcase (4301 Carrying in the hands) 11 Carry a heavy object (over 10lbs/5 kgs). (d4301)
d449 Carrying, moving and handling objects, other specified and unspecified	1 Open a tight or new jar (d4453 turn or twist hands or arms) 3 Turn a key (d4453) 5 Push open a heavy door (d4451 Pushing) 6 Place an object on a shelf above your head (d4452 Reaching) 12 Change a light bulb overhead (d4453)

	17 Recreational activities which require little effort (e.g. card playing), knitting etc.) (d4400 picking up; d4401 grasping; d4402 manipulating; d4403 releasing)
	18 Recreational activities in which you take some force or impact through your arm, shoulder or hand (e.g. golf, hammering, tennis etc.) (d4454 Throwing)
d455 Moving around	
d460 Moving around in different locations	
d465 Moving around using equipment	
d470 Using transportation	20 Manage transport needs (getting from one place to another)
d475 Driving	20 Manage transport needs (getting from one place to another) (d4751 driving motorized vehicles)
d510 Washing oneself	14 Wash your back (d5100 Washing body parts)
d520 Caring for body parts	13 Wash or blow dry your hair (d5202 Caring for hair)
d530 Toileting	
d540 Dressing	15 Put on a jumper (d5400 Putting on clothes)
d550 Eating	16 Use a knife to cut food
d560 Drinking	
d570 Looking after one`s health	
d620 Acquisition of goods and services	
d630 Preparing meals	4 Prepare a meal
d640 Doing housework	7 Do heavy household jobs (e.g. wash windows, clean floors) (d6402 Clean living area)
d660 Assisting others	9 Make a bed
d760 Family relationships	22 During the past week, to what extent has your arm, shoulder or hand problem interfered with your normal social activities with family (d760), friends, neighbours or groups?
d770 Intimate relationships	21 Sexual activities (d7702 sexual relationships)
d859 Work and employment, other specified and unspecified	23 During the past week, were you limited in your work or other regular daily activities as a result of your arm, shoulder or hand problem?

d910 Community life

d920 Recreation and leisure

17 Recreational activities which require little effort (e.g. card playing, knitting etc.) (d920: cards (d9200 Play); knitting (d9203 Crafts)).

18 Recreational activities in which you take some force or impact through your arm, shoulder or hand (e.g. golf, hammering, tennis etc) (d9201 Sports; d9204 Hobbies)

19 Recreational activities in which you move your arm freely (e.g. playing Frisbee, badminton etc) (d9201 Sports)

4. ENVIRONMENTAL FACTORS:

e115 Products and technology for personal use in daily living

e310 Immediate family

e355 Health Professionals

e570 Social security services, systems and policies

e580 Health services, systems and policies

DASH items not included in the Brief ICF Core Set for RA:

<u>ICF Code, Category and Title:</u>	<u>DASH item</u>
b265 Touch function	26 Tingling (pins and needles) in your arm, shoulder or hand.
b730 Muscle power functions*	27 Weakness in your arm, shoulder or hand.
d650 Caring for household objects	8 Garden or outdoor property work (d6505 Taking care of plants, indoors and outdoors)
d750 Informal social relationships	22 During the past week, to what extent has your arm, shoulder or hand problem interfered with your normal social activities with family, friends (d7500 informal relationships with friends), neighbours (d7501 informal relationships with neighbours), or groups (d7504 informal relationships with peers)?
personal factor (pf)	30 I feel less capable, less confident or less useful because of my arm, shoulder or hand problem.

Key: * item is included in Comprehensive ICF Core Set for RA.

Table S2: Test retest reliability for the DASH (n=170), WORKDASH (n=53) and SPAMDASH (n=19) items (linear weighted kappas).

<

Weighted Kappa

0.609

Standard error

0.0324

95% CI

0.546 to 0.673

DASH17: Recreational activities – little effort

Weighted Kappa

0.579

Standard error

0.0376

95% CI

0.505 to 0.653

DASH18: Recreational activities – force or impact

Weighted Kappa

0.693

Standard error

0.0275

95% CI

0.639 to 0.747

DASH19: Recreational activities move arm freely

Weighted Kappa

0.641

Standard error

0.0322

95% CI

0.578 to 0.704

DASH20: Manage transport needs

Weighted Kappa

0.663

Standard error

0.0334

95% CI

0.597 to 0.728

Weighted Kappa

0.769

Standard error

0.0317

95% CI

0.707 to 0.831

DASH21: Sexual activities

Weighted Kappa

0.577

Standard error

0.0307

95% CI

0.517 to 0.637

DASH22: Past week – norm social act

Weighted Kappa

0.656

Standard error

0.0299

95% CI

0.598 to 0.715

DASH23: Past week – limited in work/ daily act

Weighted Kappa

0.596

Standard error

0.0342

95% CI

0.529 to 0.663

DASH24: Arm, shoulder, hand pain

Weighted Kappa

0.540

Standard error

0.0368

95% CI

0.467 to 0.612

DASH25: Arm, shoulder, hand pain – specific activity

Weighted Kappa

0.543

Standard error

0.0385

95% CI

0.467 to 0.618

DASH26: Tingling in arm, shoulder, hand

Weighted Kappa

0.565

Standard error

0.0351

95% CI

0.496 to 0.634

DASH27: Weakness in arm, shoulder, hand

Weighted Kappa

0.495

Standard error

0.0362

95% CI

0.424 to 0.566

DASH28: Stiffness in arm, shoulder, hand

Weighted Kappa

0.572

Standard error

0.0349

95% CI

0.503 to 0.64

DASH29: Sleeping difficulty due to arm, shoulder, hand pain

Weighted Kappa

0.564

Standard error

0.0344

95% CI

0.497 to 0.632

DASH30: Capability/ confidence due to arm, shoulder, hand

WM1: Work usual way	<table><tr><td>Weighted Kappa</td><td>0.618</td></tr><tr><td>Standard error</td><td>0.0627</td></tr><tr><td>95% CI</td><td>0.495 to 0.74</td></tr></table>	Weighted Kappa	0.618	Standard error	0.0627	95% CI	0.495 to 0.74
Weighted Kappa	0.618						
Standard error	0.0627						
95% CI	0.495 to 0.74						
WM2: Arm shoulder hand pain	<table><tr><td>Weighted Kappa</td><td>0.579</td></tr><tr><td>Standard error</td><td>0.0607</td></tr><tr><td>95% CI</td><td>0.46 to 0.698</td></tr></table>	Weighted Kappa	0.579	Standard error	0.0607	95% CI	0.46 to 0.698
Weighted Kappa	0.579						
Standard error	0.0607						
95% CI	0.46 to 0.698						
WM3: Working as well as I would like	<table><tr><td>Weighted Kappa</td><td>0.587</td></tr><tr><td>Standard error</td><td>0.0605</td></tr><tr><td>95% CI</td><td>0.469 to 0.706</td></tr></table>	Weighted Kappa	0.587	Standard error	0.0605	95% CI	0.469 to 0.706
Weighted Kappa	0.587						
Standard error	0.0605						
95% CI	0.469 to 0.706						
WM4: Working usual amount of time	<table><tr><td>Weighted Kappa</td><td>0.490</td></tr><tr><td>Standard error</td><td>0.0705</td></tr><tr><td>95% CI</td><td>0.352 to 0.629</td></tr></table>	Weighted Kappa	0.490	Standard error	0.0705	95% CI	0.352 to 0.629
Weighted Kappa	0.490						
Standard error	0.0705						
95% CI	0.352 to 0.629						

SPAM1: Play usual way	<table><tr><td>Weighted Kappa</td><td>0.694</td></tr><tr><td>Standard error</td><td>0.102</td></tr><tr><td>95% CI</td><td>0.493 to 0.894</td></tr></table>	Weighted Kappa	0.694	Standard error	0.102	95% CI	0.493 to 0.894
Weighted Kappa	0.694						
Standard error	0.102						
95% CI	0.493 to 0.894						
SPAM2: Arm shoulder hand pain	<table><tr><td>Weighted Kappa</td><td>0.716</td></tr><tr><td>Standard error</td><td>0.0807</td></tr><tr><td>95% CI</td><td>0.558 to 0.874</td></tr></table>	Weighted Kappa	0.716	Standard error	0.0807	95% CI	0.558 to 0.874
Weighted Kappa	0.716						
Standard error	0.0807						
95% CI	0.558 to 0.874						
SPAM3: Play as well as I would like	<table><tr><td>Weighted Kappa</td><td>0.770</td></tr><tr><td>Standard error</td><td>0.0669</td></tr><tr><td>95% CI</td><td>0.639 to 0.901</td></tr></table>	Weighted Kappa	0.770	Standard error	0.0669	95% CI	0.639 to 0.901
Weighted Kappa	0.770						
Standard error	0.0669						
95% CI	0.639 to 0.901						
SPAM4: Playing usual amount of time	<table><tr><td>Weighted Kappa</td><td>0.773</td></tr><tr><td>Standard error</td><td>0.0600</td></tr><tr><td>95% CI</td><td>0.655 to 0.89</td></tr></table>	Weighted Kappa	0.773	Standard error	0.0600	95% CI	0.655 to 0.89
Weighted Kappa	0.773						
Standard error	0.0600						
95% CI	0.655 to 0.89						

