



Supplementary Material

10.1302/0301-620X.00.BJJ2020-2321.R2

Table i. Demographic data of included children and the caregivers that accompanied them during the interview.

Participant	Parent	Fracture site	Age, yrs	Sex	Fracture side	Inpatient stay	Treatment
001	Mother	Elbow	9	F	R	N	Sling
002	Mother	Shoulder	4	F	R	N	Sling
003	Dad	Wrist	13	M	L	N	Cast
004	Mother	Elbow	14	M	L	N	Sling
005	Mother	Shoulder	5	F	R	N	Cast
006	Mother	Lower leg	11	M	R	Y	Surgery + cast
007	Mother	Lower leg	11	M	R	Y	Cast
008	Mother	Wrist	12	M	R	N	Cast
009	Mother	Wrist	9	F	R	N	Cast
010	Mother	Elbow	6	F	L	Y	Surgery + cast
011	Mother + father	Wrist	4	M	L	N	Cast
012	Mother	Lower leg	7	M	R	N	Cast
013	Mother	Lower leg	12	F	L	Y	Surgery + cast
014	Mother	Elbow	7	F	R	Y	Cast

015	Mothe r	Wrist	8	M	L	N	Cast
016	Mothe r	Upper leg	3	M	L	Y	Traction
017	Mothe r	Elbow	7	F	L	Y	Surgery + cast
018	Mothe r	Lower leg	8	F	R	N	Cast
019	Mothe r	Forearm	10	F	R	N	Cast
020	Mothe r + father	Elbow	5	M	R	N	Sling

Table ii. Sample World Health Organization International Classification of Functioning, Disability and Health (WHO ICF) mapping.

Source	Verbatim quote	Code(s)	WHO ICF domain
Mother of 016	He fell off the monkey bars at school, he tried to jump from one bar to the other so he fell and obviously landed on his elbow, nobody saw what happened exactly. And then he was in a lot of pain and the arm started swelling so we came to the A&E	Pain. Limb swelling.	B280 Sensation of pain B820 Repair functions of the skin
003	Just not being able to use my left hand. I've had to do everything right handed.	Hand use.	D445 Hand and arm use
008	I noticed that I couldn't go swimming , I noticed that I couldn't go on any rides, I noticed that I could hardly do anything except for watch or play a weeny bit of video games	Swimming. Play and recreation. Using hands for video games.	D455(4) Swimming D920(0) Play D445 Fine hand use

007	The airbag because that hurt a lot it hurt because it hurt a lot it fully they had to deflate the airbag and they had to straighten it fully and they had to move my leg around a lot and I didn't have a cast on so it was hurting a lot it was	Pain Limb that needed straightening (objective deformity)	B280 Sensation of pain S750 Structure of lower extremity
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Table iii. Stakeholders involved in Delphi study arranged by professional group.

Group	First round, n (%)	Second round, n (%)	Retention from first round, %	Third round, n (%)	Retention from first round, %
Paediatric orthopaedic doctor	91 (44)	72 (46)	79	62 (43)	68
Therapist	27 (13)	17 (11)	61	14 (10)	50
Parent	26 (13)	19 (12)	73	19 (13)	73
Other doctor	25 (12)	21 (13)	84	20 (14)	80
Nurse	19 (9)	14 (9)	74	15 (10)	79
Researcher / systematic reviewer	7 (3)	5 (3)	71	4 (3)	57
Teacher	4 (2)	4 (3)	100	4 (3)	100
Other	6 (3)	6 (4)	100	5 (3)	83

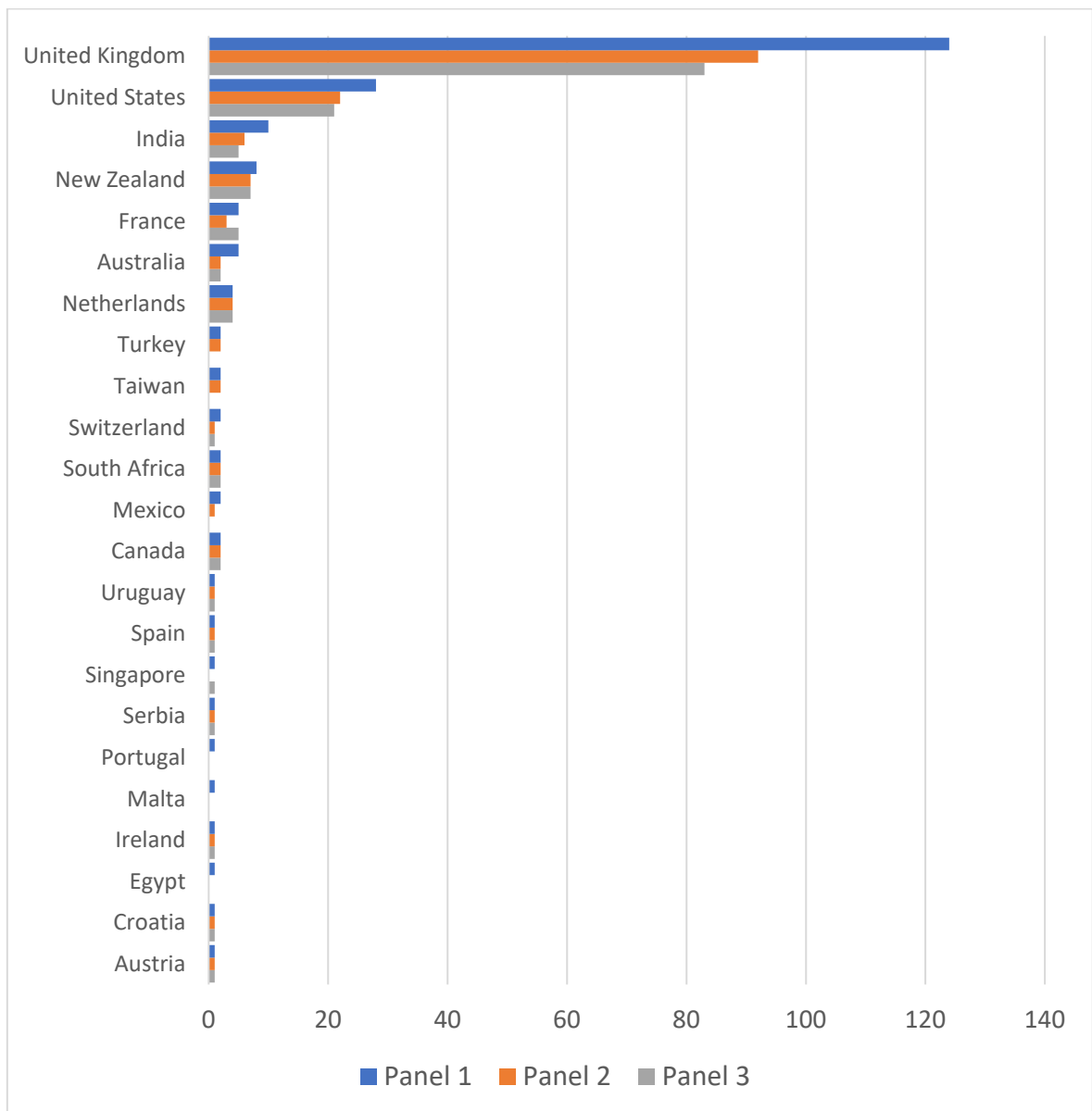


Figure a. Country of origin for Delphi panellists in first, second, and third round panels.

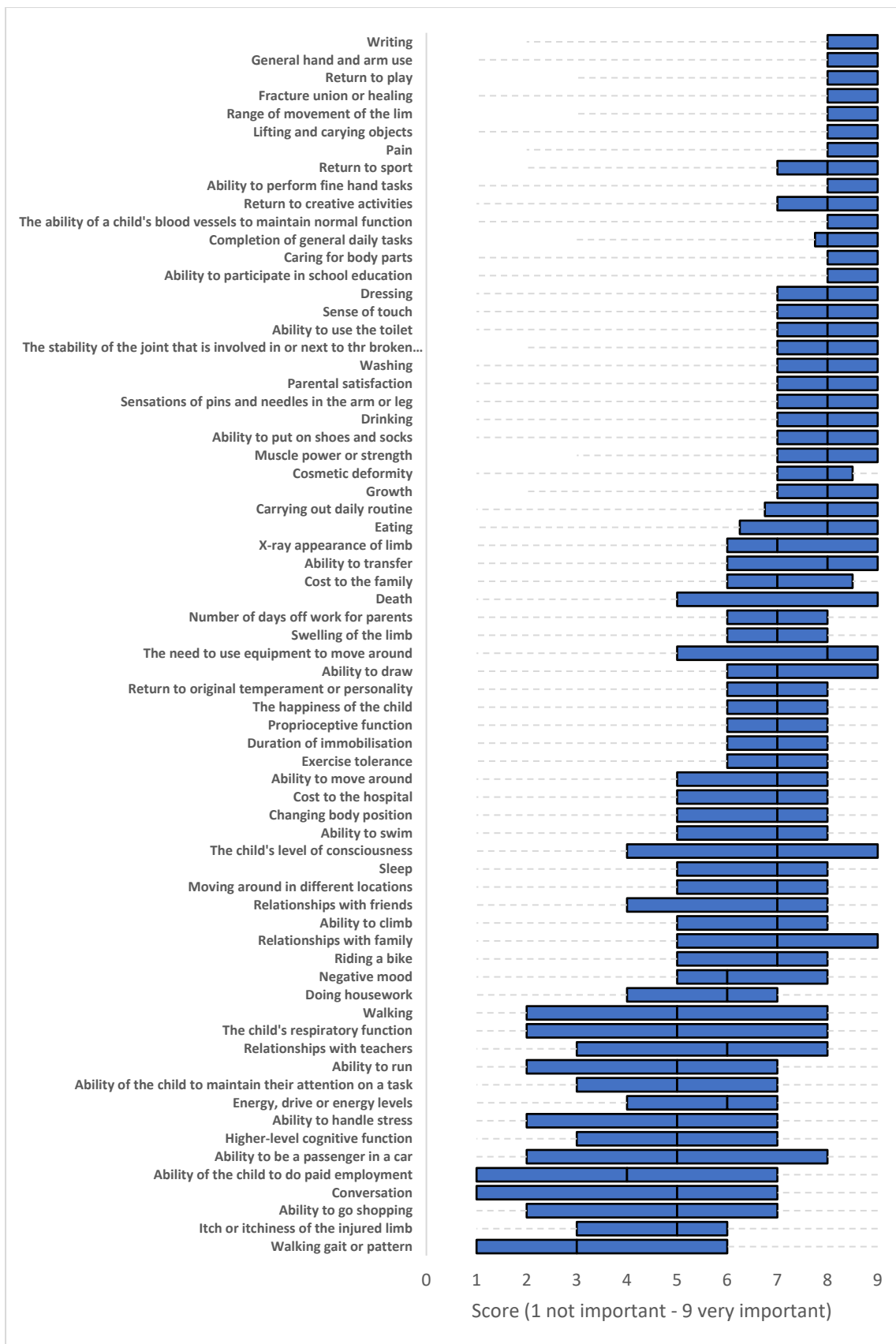


Figure b. Upper limb outcome scores for first round Delphi.

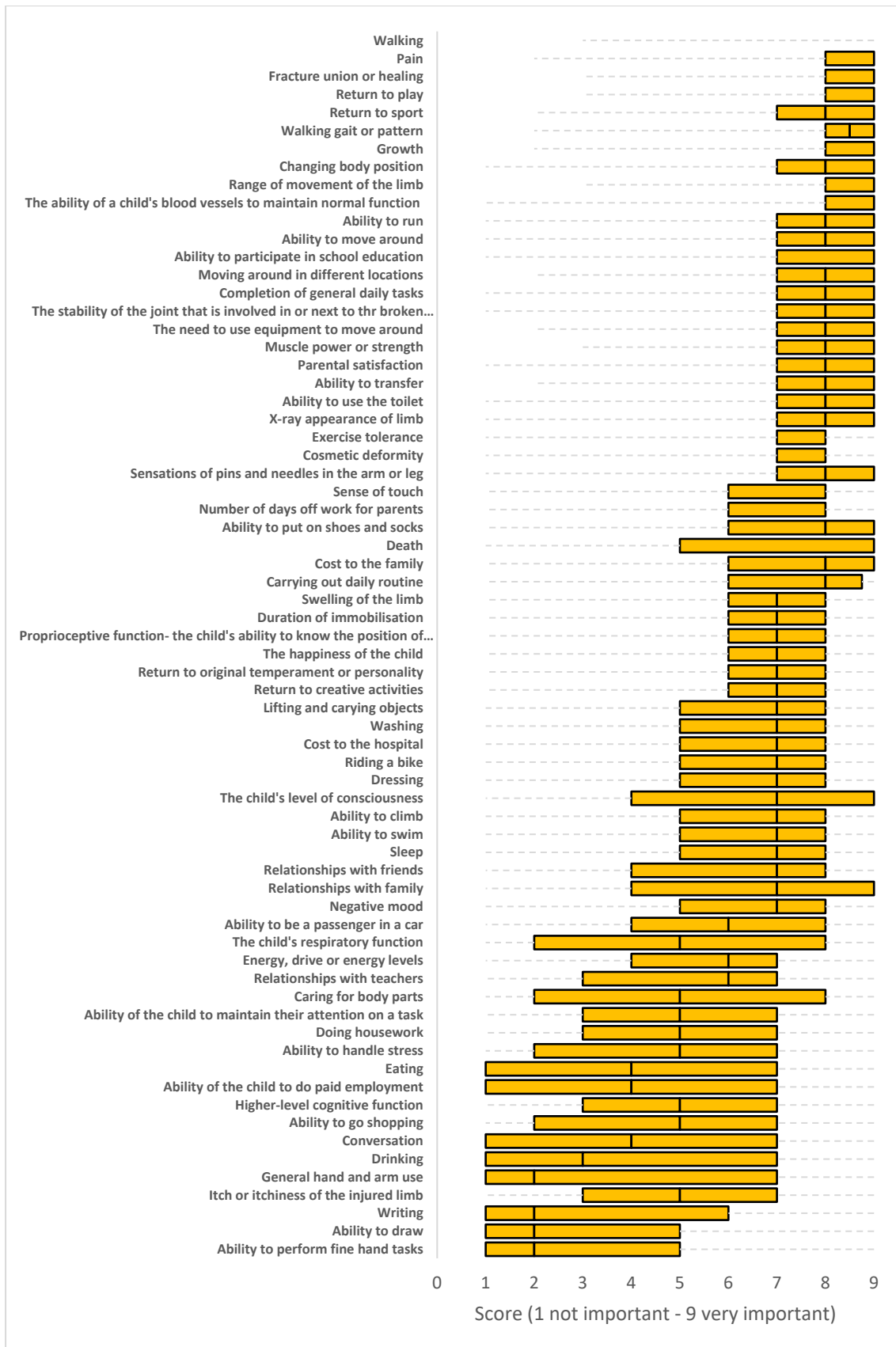


Figure c Lower limb outcome scores for first round Delphi.

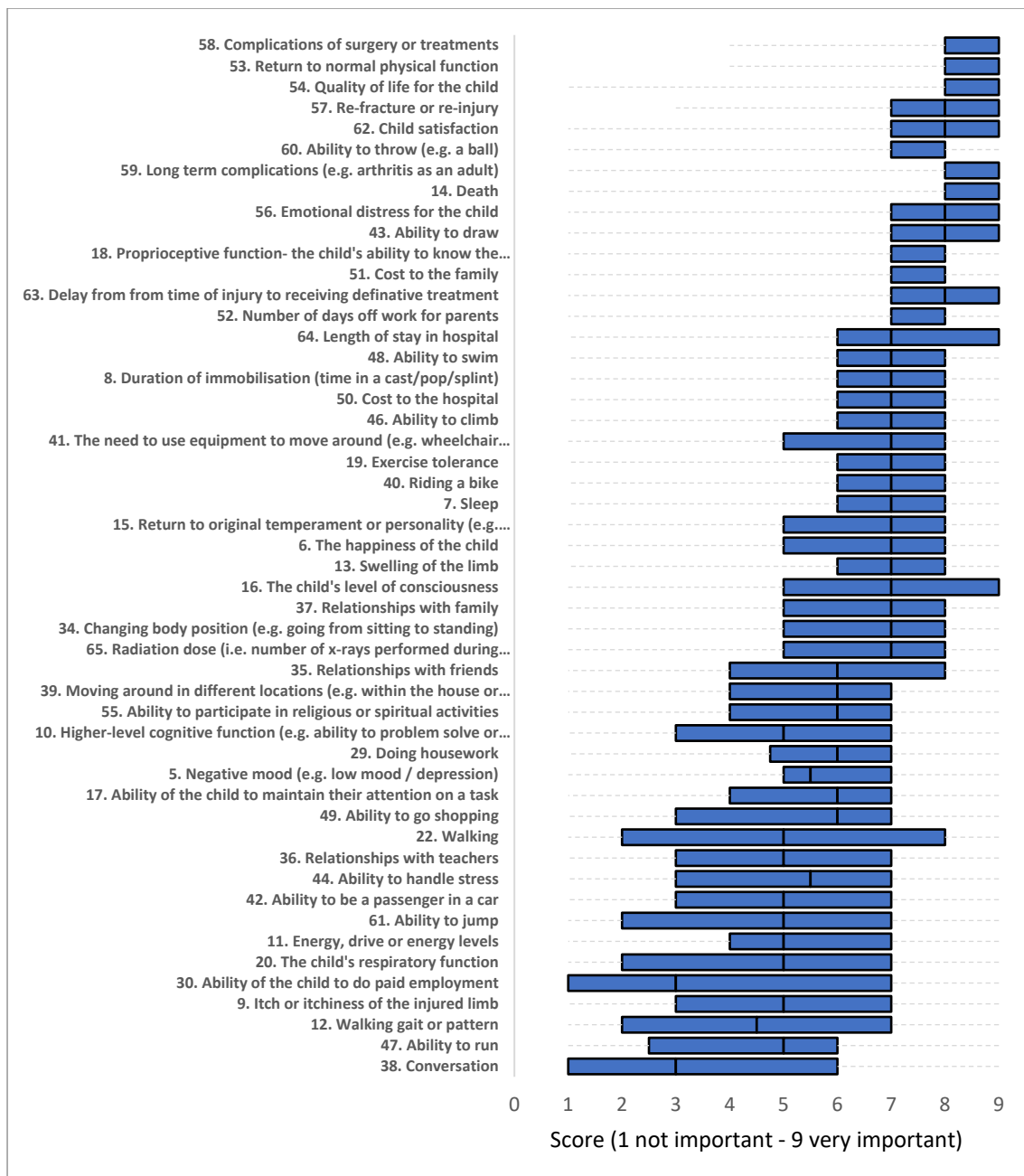


Figure d. Upper limb outcome scores for second round Delphi.

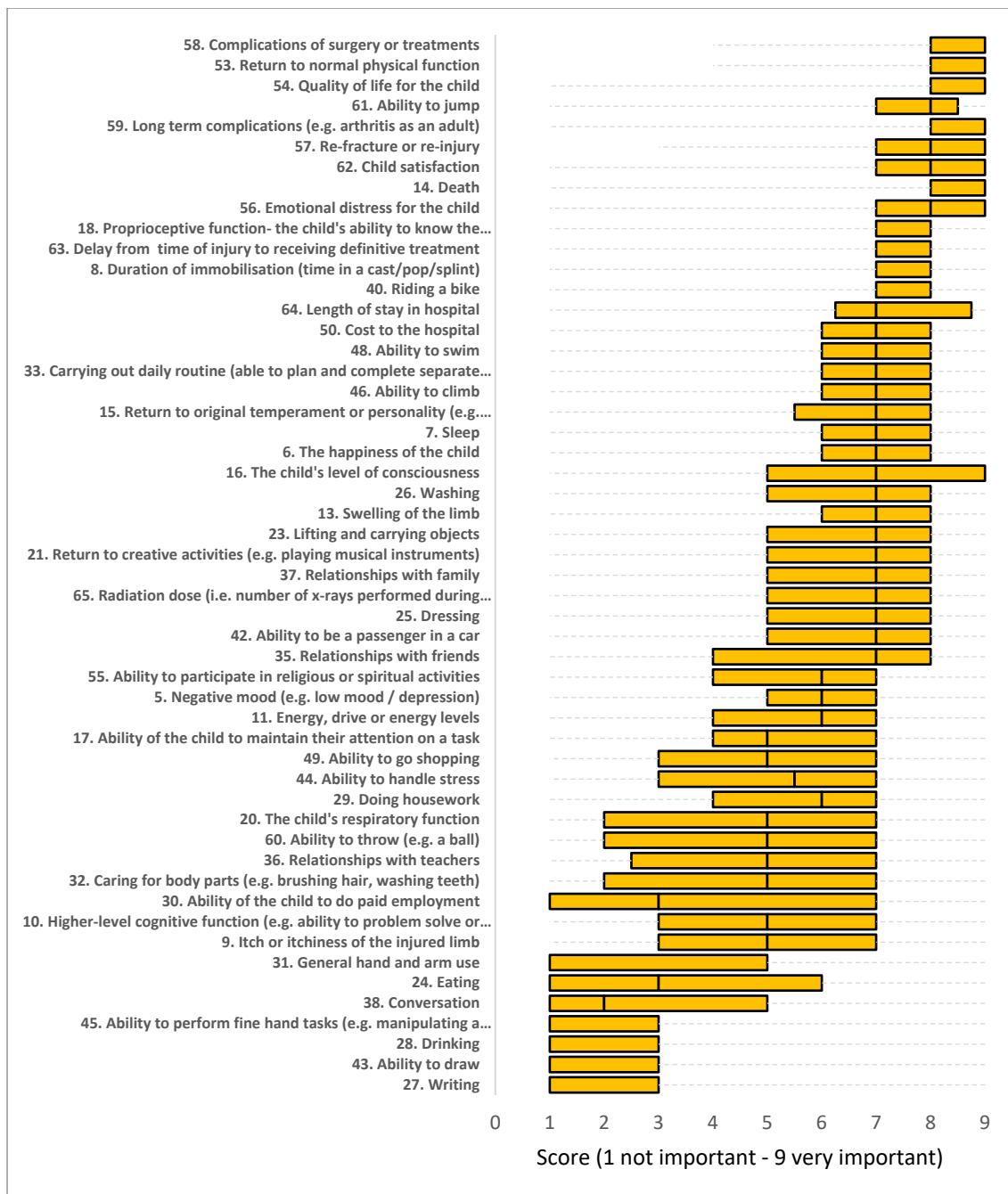


Figure e. Lower limb outcome scores for second round Delphi.

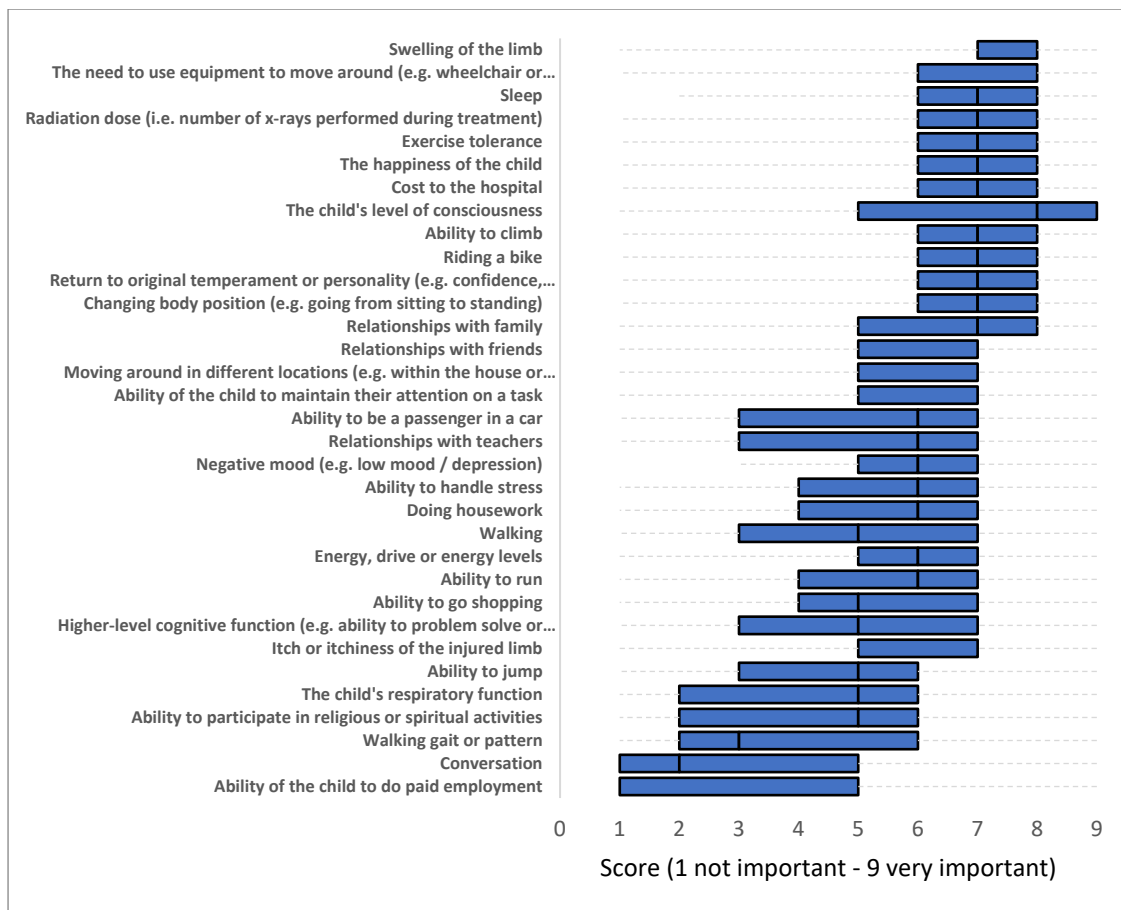


Figure f. Upper limb outcome scores for third round Delphi.

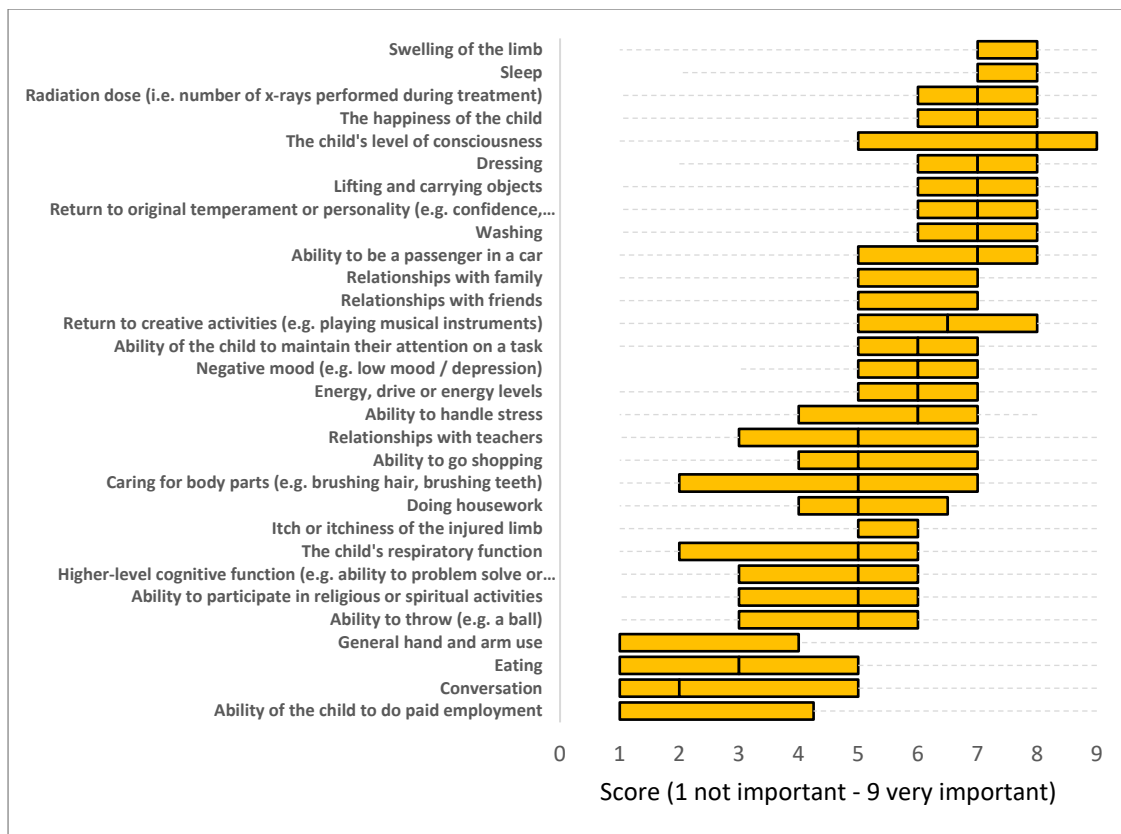


Figure g. Lower limb outcome scores for third round Delphi.

Supplementary figures and tables for consensus meeting

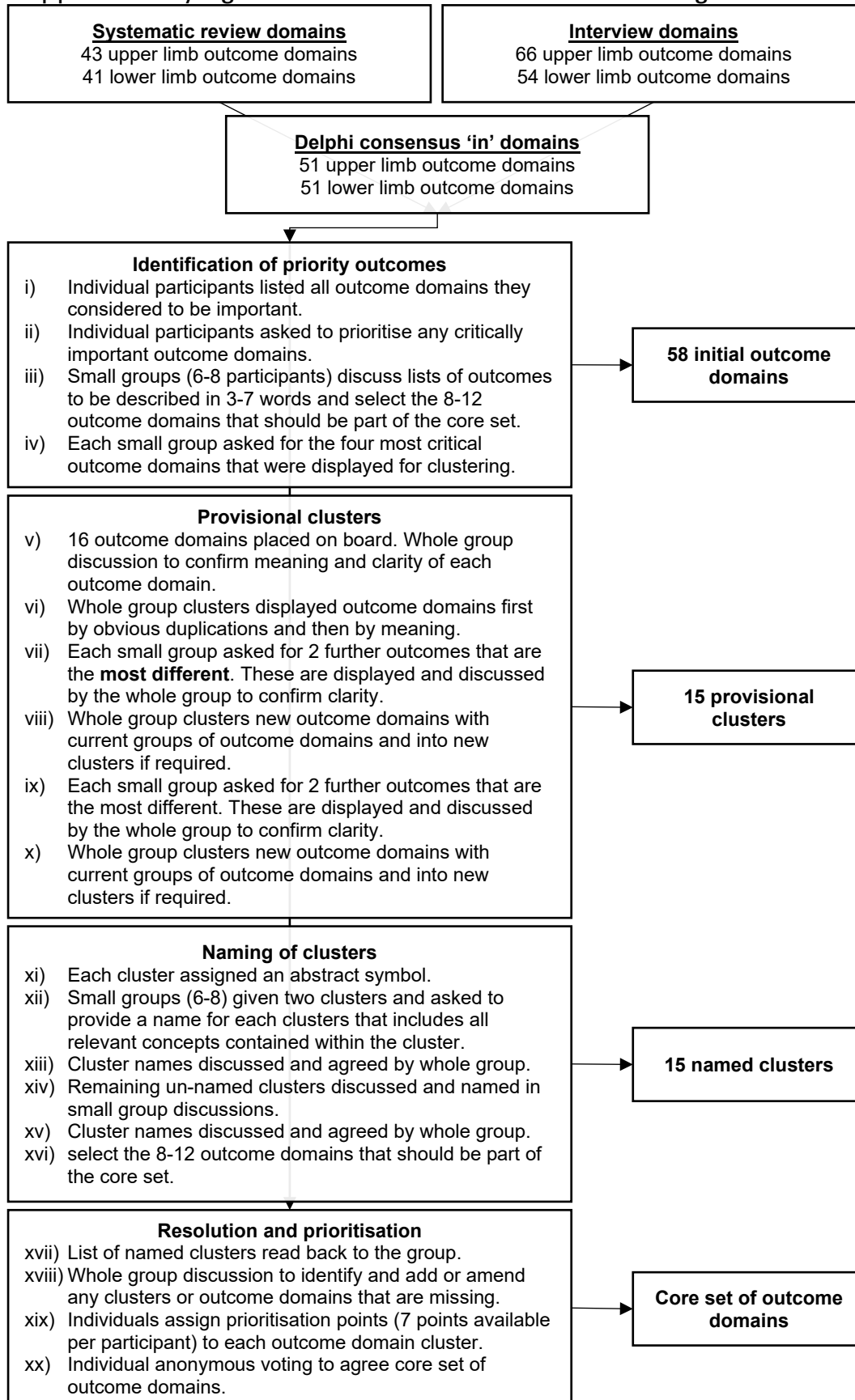


Figure h. Flow chart for consensus meeting process.

Table iv. Voting scores for general set of outcome domains. Uncertainty of final score calculated using binomial exact confidence intervals (CI).

Outcome domain (general set)	All participants, % (95% CI)	All non-doctor participants, % (95% CI)	Parents and patients, % (95% CI)
Pain & discomfort	100 (88.4 to 100)	100 (80.5 to 100)	100(66.4 to 100)
Return to physical and recreational activities	100 (88.4 to 100)	100 (80.5 to 100)	100 (66.4 to 100)
Emotional & psychosocial wellbeing	100 (88.4 to 100)	100 (80.5 to 100)	100 (66.4 to 100)
Complications from the injury and its treatment	96.7 (82.8 to 99.9)	100 (80.5 to 100)	100 (66.4 to 100)
Return to baseline activities of daily living	96.7 (82.8 to 99.9)	100 (80.5 to 100)	100 (66.4 to 100)
Participation in learning	93.3 (77.9 to 99.2)	94.1 (71.3 to 99.9)	100 (66.4 to 100)
Appearance & deformity	93.3 (77.9 to 99.2)	100 (80.5 to 100)	100 (66.4 to 100)
Time to union	80.0 (61.4 to 92.3)	100 (80.5 to 100)	100 (66.4 to 100)
Cost to family	70.0 (50.6 to 85.3)	82.4 (56.6 to 96.2)	100 (66.4 to 100)
Ability to sleep	66.7 (47.2 to 82.7)	76.5 (50.1 to 93.2)	77.8 (40.4 to 97.2)
Range of movement	63.3 (43.9 to 80.1)	76.5 (50.1 to 93.2)	77.8 (40.4 to 97.2)
The cost of treatment	56.7 (37.4 to 74.5)	64.7 (38.3 to 85.8)	66.7 (29.9 to 92.5)
Service user satisfaction	53.3 (34.3 to 71.7)	70.6 (44.0 to 89.7)	55.6 (21.2 to 86.3)
Recovery of mobility	40.0 (22.7 to 59.4)	52.9 (27.8 to 77.0)	55.6 (21.2 to 86.3)
Recovery of manual dexterity	10.0 (2.1 to 26.5)	11.8 (1.5 to 36.4)	22.2 (2.8 to 60.0)

Table v. Voting scores for upper limb set of outcome domains. Uncertainty of final score calculated using binomial exact confidence intervals (CI).

Outcome domain (upper limb)	All participants, % (95% CI)	All non-doctor participants, % (95% CI)	Parents and patients, % (95% CI)
Pain & discomfort	100 (88.4 to 100)	100 (80.5 to 100)	100 (66.4 to 100)
Return to physical and recreational activities	100 (88.4 to 100)	100 (80.5 to 100)	100 (66.4 to 100)
Emotional & psychosocial wellbeing	100 (88.4 to 100)	100 (80.5 to 100)	100 (66.4 to 100)
Complications from the injury and its treatment	96.7 (82.8 to 99.9)	100 (80.5 to 100)	100 (66.4 to 100)
Return to baseline activities of daily living	100 (88.4 to 100)	100 (80.5 to 100)	100 (66.4 to 100)
Participation in learning	93.3 (77.9 to 99.2)	100 (80.5 to 100)	100 (66.4 to 100)
Appearance & deformity	90.0 (73.5 to 97.9)	88.2 (63.6 to 98.5)	100 (66.4 to 100)
Time to union	80.8 (61.4 to 92.3)	100 (80.5 to 100)	100 (66.4 to 100)
Cost to family	66.7 (47.2 to 82.7)	76.5 (50.1 to 93.2)	100 (66.4 to 100)
Ability to sleep	66.7 (47.2 to 82.7)	76.5 (50.1 to 93.2)	77.8 (40.0 to 97.2)
Range of movement	63.3 (43.9 to 80.1)	70.6 (44.0 to 89.7)	77.8 (40.0 to 97.2)
The cost of treatment	56.7 (37.4 to 74.5)	64.7 (38.3 to 85.8)	66.7 (22.9 to 92.5)
Service user satisfaction	50.0 (31.3 to 68.7)	64.7 (38.3 to 85.8)	55.6 (21.2 to 86.3)
Recovery of mobility	40.0 (22.7 to 59.4)	52.9 (27.8 to 77.0)	55.6 (21.2 to 86.3)
Recovery of manual dexterity	100 (88.4 to 100)	100 (80.5 to 100)	100 (66.4 to 100)

Table vi. Voting scores for lower limb set of outcome domains. Uncertainty of final score calculated using binomial exact confidence intervals (CI).

Outcome domain (lower limb)	All participants, % (95% CI)	All non-doctor participants, % (95% CI)	Parents and patients, % (95% CI)
Pain & discomfort	100 (88.4 to 100)	100 (80.5 to 100)	100 (66.4 to 100)
Return to physical and recreational activities	100 (88.4 to 100)	100 (80.5 to 100)	100 (66.4 to 100)
Emotional & psychosocial wellbeing	100 (88.4 to 100)	100 (80.5 to 100)	100 (66.4 to 100)
Complications from the injury and its treatment	96.7 (82.8 to 99.9)	100 (80.5 to 100)	100 (66.4 to 100)
Return to baseline activities of daily living	96.7 (82.8 to 99.9)	100 (80.5 to 100)	100 (66.4 to 100)
Participation in learning	93.3 (77.9 to 99.2)	100 (80.5 to 100)	100 (66.4 to 100)
Appearance & deformity	90.0 (73.5 to 97.9)	88.2 (63.6 to 98.5)	100 (66.4 to 100)
Time to union	80.8 (61.4 to 92.3)	100 (80.5 to 100)	100 (66.4 to 100)
Cost to family	66.7 (47.2 to 82.7)	76.5 (50.1 to 93.2)	100 (66.4 to 100)
Ability to sleep	66.7 (47.2 to 82.7)	76.5 (50.1 to 93.2)	77.8 (40.0 to 97.2)
Range of movement	60.0 (40.6 to 77.3)	70.6 (44.0 to 89.7)	77.8 (40.0 to 97.2)
The cost of treatment	56.7 (37.4 to 74.5)	64.7 (38.3 to 85.8)	66.7 (29.9 to 92.5)
Service user satisfaction	50.0 (31.3 to 68.7)	64.7 (38.3 to 85.8)	55.6 (21.2 to 86.3)
Recovery of mobility	100 (88.4 to 100)	100 (80.5 to 100)	100 (66.4 to 100)
Recovery of manual dexterity	10.0 (2.1 to 26.5)	11.8 (1.5 to 36.4)	22.2 (2.8 to 60.0)

SECTION/TOPIC	ITEM No.	CHECKLIST ITEM	Page
TITLE/ABSTRACT			
Title Abstract	1a	Identify in the title that the paper reports the development of a COS	1
	1b	Provide a structured summary	1
INTRODUCTION			
Background and objectives	2a	Describe the background and explain the rationale for developing the COS	2
	2b	Describe the specific objectives with reference to developing a COS	2
Scope	3a	Describe the health condition(s) and population(s) covered by the COS	2
	3b	Describe the intervention(s) covered by the COS	2
	3c	Describe the setting(s) in which the COS is to be applied	2
METHODS			
Protocol/Registry Entry	4	Indicate where the COS development protocol can be accessed, if available and/or the study registration details	3
Participants	5	Describe the rationale for stakeholder groups involved in the COS development process, eligibility criteria for participants from each group and a description of how the individuals involved were identified	3
Information sources	6a	Describe the information sources used to identify an initial list of outcomes	3
	6b	Describe how outcomes were dropped/combined, with reasons (if applicable)	3
Consensus process	7	Describe how the consensus process was undertaken	3-4
Outcome scoring	8	Describe how outcomes were scored and scores summarised	3-4
Consensus definition	9a	Describe the consensus definition	4

	9b	Describe the procedure for determining how outcomes were included or excluded from consideration during the consensus process	4
Ethics and consent	10	Provide a statement regarding the ethics and consent issues for the study	12
RESULTS			
Protocol deviations	11	Describe any changes from the protocol (if applicable), with reasons, and a describe what impact these changes have on the results	4
Participants	12	Present data on the number and relevant characteristics of the people involved at all stages of COS development	Supplementary
Outcomes	13a	List all outcomes considered at the start of the consensus process	Supplementary
	13b	Describe any new outcomes introduced and any outcomes dropped, with reasons, during the consensus process	Supplementary
Core outcome set	14	List the outcomes in the final core outcome set	6
DISCUSSION			
Limitations	15	Discuss any limitations in the COS development process	11
Conclusions	16	Provide an interpretation of the final COS in the context of other evidence, and implications for future research	11-12
OTHER INFORMATION			
Funding	17	Describe sources of funding, role of funders	12
Conflicts of interest	18	Describe any conflicts of interest within the study team and how these were managed	12