

Supplementary Material

10.1302/0301-620X.106B10.BJJ-2024-0466.R1

Table i. Descriptive analysis of statements included in the Delphi survey Round 1.

Statement	Respondent	n	Respondent scoring, n (%)			Median	IOR
			1 to 3	4 to 6	7 to 9	Wealan	
Definition							
1. ITW is defined as bilateral toe walking that started	All participants	216	6 (3)	29 (13)	181 (84)	8	7 to 9
from initiation of walking and is not associated with any known neurological condition, and persistent beyond the	Orthopaedic consultants, fellows, specialists	94	4 (4)	13 (14)	77 (82)	8	7 to 9
age of two.	Physiotherapists, ANPs	122	2 (2)	16 (13)	104 (85)	8	7 to 9
2. Autism spectrum disorder (ASD) / ADHD are not	All participants	207	21 (10)	52 (25)	134 (65)	7	6 to 9
considered as one of the neurological conditions.	Orthopaedic consultants, fellows, specialists	90	14 (16)	18 (20)	58 (64)	7	5 to 9
	Physiotherapists, ANPs	117	7 (6)	34 (29)	76 (65)	7	6 to 9
Primary referral process							
3. Every referral of ITW should first be seen by an	All participants	218	15 (7)	29 (13)	174 (80)	8	7 to 9
experienced practitioner that can assess, identify, diagnose and refer to a developmental paediatrician/	Orthopaedic consultants, fellows, specialists	95	7 (7)	15 (16)	73 (77)	8	7 to 9
paediatric neurologist when appropriate.	Physiotherapists, ANPs	123	8 (7)	14 (11)	101 (82)	8	7 to 9

4. Assessment should involve family history,	All participants	218	2 (1)	8 (4)	208 (95)	9	8 to 9		
developmental history, basic musculoskeletal and	Orthopaedic	95	1 (1)	6 (6)	88 (93)	9	8 to 9		
neurological examinations including range, strength,	specialists								
gait.	Physiotherapists, ANPs	123	1 (1)	2 (2)	120 (98)	9	9 to 9		
5. Primary assessment should include creatine kinase	All participants	208	103 (50)	70 (34)	35 (17)	4	2 to 6		
test.	Orthopaedic consultants, fellows, specialists	95	46 (48)	30 (32)	19 (20)	4	2 to 6		
	Physiotherapists, ANPs	113	57 (50)	40 (35)	16 (14)	3	2 to 5		
6. Creatine kinase is not required as part of ITW primary	All participants	207	62 (30)	65 (31)	80 (39)	6	3 to 7		
assessment.	Orthopaedic consultants, fellows, specialists	93	23 (25)	32 (34)	38 (41)	6	4 to 8		
	Physiotherapists, ANPs	114	39 (34)	33 (29)	42 (37)	5	3 to 7		
7. In the case of any abnormal / positive findings in the	All participants	218	2 (1)	7 (3)	209 (96)	9	8 to 9		
neurological examination, a referral should be made to the appropriate specialist with consideration of further	Orthopaedic consultants, fellows, specialists	95	1 (1)	4 (4)	90 (95)	9	8 to 9		
diagnostic tests and imaging.	Physiotherapists, ANPs	123	1 (1)	3 (2)	119 (97)	9	9 to 9		
Treatment Decision									
8. The aim of primary treatment is not solely to address	All participants	214	6 (3)	24 (11)	184 (86)	8	7 to 9		
toe walking but to manage the symptoms affecting the child who toe walks.	Orthopaedic consultants, fellows, specialists	93	4 (4)	15 (16)	74 (80)	8	7 to 9		
	Physiotherapists, ANPs	121	2 (2)	9 (7)	110 (91)	8	7 to 9		
9. Passive ankle dorsiflexion in patients with ITW should	All participants	218	39 (18)	82 (38)	97 (44)	6	4 to 8		
be measured on the couch with a goniometer.	Orthopaedic consultants, fellows, specialists	95	31 (33)	40 (42)	24 (25)	5	3 to 6.5		
	Physiotherapists, ANPs	123	8 (7)	42 (34)	73 (59)	7	6 to 8		
10. Passive ankle dorsiflexion in patients with ITW should	All participants	211	78 (37)	87 (41)	46 (22)	5	3 to 6		
be measured in weightbearing using a weightbearing lunge test.	Orthopaedic consultants, fellows, specialists	94	51 (54)	32 (34)	11 (12)	3	2 to 5		
	Physiotherapists, ANPs	117	27 (23)	55 (47)	35 (30)	6	4 to 7		
11. Joint contracture relevant to ITW gait is loss of	All participants	199	48 (24)	76 (38)	75 (38)	6	4 to 7		
previously documented range.	Orthopaedic consultants, fellows, specialists	87	26 (30)	36 (41)	25 (29)	5	3 to 7		
	Physiotherapists, ANPs	112	22 (20)	40 (36)	50 (45)	6	4 to 7		
The following three statements will define joint contract	ure in children <u>und</u>	der the ag	e of 8 years	<u>old</u>					
	All participants	203	29 (14)	51 (25)	123 (61)	7	5 to 8		

12. Joint contracture relevant to ITW gait is defined as ankle equinus (passive ADKE <0).	Orthopaedic consultants, fellows, specialists	88	14 (16)	24 (27)	50 (57)	7	4 to 8
	Physiotherapists, ANPs	115	15 (13)	27 (23)	73 (63)	7	5 to 9
13. Joint contracture relevant to ITW gait is defined as	All participants	203	58 (29)	65 (32)	80 (39)	6	3 to 7
passive ADKE <5-10.	Orthopaedic consultants, fellows, specialists	88	29 (33)	30 (34)	29 (33)	5	3 to 7
	Physiotherapists, ANPs	115	29 (25)	35 (30)	51 (44)	6	3.5 to 8
14. Joint contracture relevant to ITW gait is defined as	All participants	203	101 (50)	47 (23)	55 (27)	4	1 to 7
passive ADKE <10-15.	Orthopaedic consultants, fellows, specialists	87	41 (47)	23 (26)	23 (26)	4	2 to 7
	Physiotherapists, ANPs	116	60 (52)	24 (21)	32 (28)	3	1 to 7
The following three statements will define joint contracture	e in children <u>over tl</u>	<u>he age of</u>	<u>8 years old</u>				
15. Joint contracture relevant to ITW gait defined as ankle	All participants	196	22 (11)	44 (22)	130 (66)	7	6 to 9
equinus (passive ADKE <0)	Orthopaedic consultants, fellows, specialists	84	9 (11)	23 (27)	52 (62)	7	5 to 8
	Physiotherapists, ANPs	112	13 (12)	21 (19)	78 (70)	7.5	6 to 9
16. Joint contracture relevant to ITW gait is defined as	All participants	199	60 (30)	72 (36)	67 (34)	5	3 to 7
passive ADKE <5-10.	Orthopaedic consultants, fellows, specialists	84	30 (36)	31 (37)	23 (27)	5	3 to 7
	Physiotherapists, ANPs	115	30 (26)	41 (36)	44 (38)	6	3 to 7
17. Joint contracture relevant to ITW gait is defined as	All participants	198	100 (51)	46 (23)	52 (26)	3	1 to 7
passive ADKE <10-15.	Orthopaedic consultants, fellows, specialists	85	35 (41)	26 (31)	24 (28)	5	2 to 7
	Physiotherapists, ANPs	113	65 (58)	20 (18)	28 (25)	3	1 to 6
18. Asymptomatic ITW without ankle joint contracture	All participants	212	54 (25)	54 (25)	104 (49)	6	3 to 8
should not be treated.	Orthopaedic consultants, fellows, specialists	93	22 (24)	21 (23)	50 (54)	7	4 to 9
	Physiotherapists, ANPs	119	32 (27)	33 (28)	54 (45)	6	3 to 8
19. Every ITW should be treated.	All participants	213	137 (64)	32 (15)	44 (21)	2	1 to 6
	Orthopaedic consultants, fellows, specialists	94	68 (72)	7 (7)	19 (20)	2	1 to 4.75
	Physiotherapists, ANPs	119	69 (58)	25 (21)	25 (21)	3	1 to 6
20. An indication for treatment of ITW is pain.	All participants	216	16 (7)	49 (23)	151 (70)	7	6 to 9
	Orthopaedic consultants, fellows, specialists	94	11 (12)	21 (22)	62 (66)	7	6 to 8
	Physiotherapists, ANPs	122	5 (4)	28 (23)	89 (73)	8	6 to 9

21 An indication for treatment of ITW is emotional	All participants	216	16 (7)	74 (34)	126 (58)	7	6 to 8
effects on the national including their activity participation	Orthopaedic	94	11 (12)	32 (34)	51 (54)	7	6 to 8
(subjective)	consultants, fellows,		. ,				
	Physiotherapists, ANPs	122	5 (4)	42 (34)	75 (61)	7	6 to 8
Primary treatment			1 - 1 /			1	
22 Non-surgical treatment should always be the first	All participants	217	16 (7)	21 (10)	180 (83)	9	7 to 9
choice of treatment	Orthopaedic	95	11 (12)	12 (13)	72 (76)	8	7 to 9
	consultants, fellows, specialists			(,	(,		
	Physiotherapists, ANPs	122	5 (4)	9 (7)	108 (89)	9	8 to 9
23. Primary treatment includes education and advice,	All participants	215	10 (5)	19 (9)	186 (87)	9	7 to 9
stretching, strengthening, casting, and day and night splints as decided by the treating physiotherapists based	Orthopaedic consultants, fellows, specialists	92	9 (10)	9 (10)	74 (80)	8	7 to 9
on the clinical examination.	Physiotherapists, ANPs	123	1 (1)	10 (8)	112 (91)	9	8 to 9
24. Primary treatment can be provided by any	All participants	212	34 (16)	30 (14)	148 (70)	8	6 to 9
experienced health practitioner (e.g. physiotherapist, orthotist, plaster technician).	Orthopaedic consultants, fellows, specialists	94	7 (7)	12 (13)	75 (80)	8	7 to 9
	Physiotherapists, ANPs	118	27 (23)	18 (15)	73 (62)	7	4 to 9
25. Stretching programmes can be provided if	All participants	216	17 (8)	46 (21)	153 (71)	7.5	6 to 9
dorsiflexion range allows heel contact in weightbearing.	Orthopaedic consultants, fellows, specialists	95	8 (8)	23 (24)	64 (67)	7	6 to 9
	Physiotherapists, ANPs	121	9 (7)	23 (19)	89 (74)	8	6 to 9
26. Serial casting can be attempted to reduce equinus	All participants	216	9 (4)	35 (16)	172 (80)	8	7 to 9
contractures.	Orthopaedic consultants, fellows, specialists	95	7 (7)	16 (17)	72 (76)	8	7 to 9
	Physiotherapists, ANPs	121	2 (2)	19 (16)	100 (83)	8	7 to 9
27. Heel contact should be achieved in weightbearing	All participants	210	19 (9)	33 (16)	158 (75)	7	7 to 9
casts with wedging as required.	Orthopaedic consultants, fellows, specialists	91	15 (16)	21 (23)	55 (60)	7	5 5 to 8
	Physiotherapists, ANPs	119	4 (3)	12 (10)	103 (87)	8	7 to 9
28. Night splints could be provided if plantigrade or	All participants	214	43 (20)	63 (29)	108 (50)	7	5 to 8
greater in knee flexion.	Orthopaedic consultants, fellows, specialists	94	23 (24)	32 (34)	39 (41)	6	4 to 7
	Physiotherapists, ANPs	120	20 (17)	31 (26)	69 (58)	7	5 to 8
29. Carbon fibre insoles could be offered to reduce toe	All participants	191	69 (36)	71 (37)	51 (27)	5	2 to 7
walking.	Orthopaedic consultants, fellows, specialists	83	36 (43)	26 (31)	21 (25)	4	2 to 6.5

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	Physiotherapists, ANPs	108	33 (31)	45 (42)	30 (28)	5	3 to 7
30. Botulinum toxin injection is not indicated in treating	All participants	190	38 (20)	28 (15)	124 (65)	8	4.25 to 9
ITW.	Orthopaedic consultants, fellows, specialists	95	21 (22)	14 (15)	60 (63)	8	4 to 9
	Physiotherapists, ANPs	95	17 (18)	14 (15)	64 (67)	8	6 to 9
31. Botulinum toxin injection can be indicated in treating	All participants	189	130 (69)	30 (16)	29 (15)	2	1 to 5
ITW.	Orthopaedic consultants, fellows, specialists	95	59 (62)	14 (15)	22 (23)	3	1 to 6
	Physiotherapists, ANPs	94	71 (76)	16 (17)	7 (7)	1.5	1 to 3
32. The aim of treatment is to address the indication/	All participants	212	11 (5)	43 (20)	158 (75)	8	6 to 9
symptom and hence the outcome of the treatment would be whether that goal was achieved.	Orthopaedic consultants, fellows, specialists	95	7 (7)	15 (16)	73 (77)	8	7 to 8
	Physiotherapists, ANPs	117	4 (3)	28 (24)	85 (73)	8	6 to 9
33. There is no need for follow up after successful	All participants	215	46 (21)	49 (23)	120 (56)	7	4.5 to 8
treatment and patients could be re-referred if needed.	Orthopaedic consultants, fellows, specialists	95	24 (25)	13 (14)	58 (61)	7	3.5 to 8
	Physiotherapists, ANPs	120	22 (18)	36 (30)	62 (52)	7	5 to 8
34. There is need for follow up for 12 months after	All participants	213	81 (38)	57 (27)	75 (35)	5	2 to 7
successful treatment.	Orthopaedic consultants, fellows, specialists	94	32 (34)	27 (29)	35 (37)	5	2 to 8
	Physiotherapists, ANPs	119	49 (41)	30 (25)	40 (34)	5	2 to 7
35. There is need for follow up for 24 months after	All participants	211	126 (60)	40 (19)	45 (21)	3	1 to 6
successful treatment.	Orthopaedic consultants, fellows, specialists	93	56 (60)	17 (18)	20 (22)	3	1 to 6
	Physiotherapists, ANPs	118	70 (59)	23 (19)	25 (21)	2.5	1 to 6
36. Following discharge from physiotherapy, patients and	All participants	218	1 (0)	11 (5)	206 (94)	9	8 to 9
families should be advised regarding potential risk factors for recurrence of ITW and how to seek re-referral	Orthopaedic consultants, fellows, specialists	95	1 (1)	8 (8)	86 (91)	8	7 to 9
into services if needed.	Physiotherapists, ANPs	123	0 (0)	3 (2)	120 (98)	9	8 to 9
37. Failure of treatment is defined as the inability to	All participants	210	20 (10)	67 (32)	123 (59)	7	5 to 8
achieve the indication for intervention during an agreed time frame e.g. failure to reach plantigrade stance with 6	Orthopaedic consultants, fellows, specialists	93	6 (6)	33 (35)	54 (58)	7	5 to 8
weeks of casting.	Physiotherapists, ANPs	117	14 (12)	34 (29)	69 (59)	7	5 to 8
38. Recurrence of ITW is defined as ITW that was	All participants	215	5 (2)	29 (13)	181 (84)	8	7 to 9
previously treated successfully and now lost that improvement in symptoms (range, pain etc.).	Orthopaedic consultants, fellows, specialists	95	2 (2)	13 (14)	80 (84)	8	7 to 9
	Physiotherapists, ANPs	120	3 (3)	16 (13)	101 (84)	8	7 to 9

39. In the case of recurrence following a successful	All participants	216	11 (5)	36 (17)	169 (78)	8	7 to 9
intervention, there is room for another attempt in	Orthopaedic	95	10 (11)	17 (18)	68 (72)	8	6 to 9
'primary' treatment.	consultants, fellows,						
	Physiotherapists, ANPs	121	1 (1)	19 (16)	101 (83)	8	7 to 9
40. Patients with ITW that have ASD/ADHD should be	All participants	209	29 (14)	46 (22)	134 (64)	7	5 to 8
offered the same procedure with appropriate coupselling	Orthopaedic	94	13 (14)	16 (17)	65 (69)	7	6 to 8.75
regarding recurrence rates	consultants, fellows,	-	- ()		,		
	Physiotherapists, ANPs	115	16 (14)	30 (26)	69 (60)	7	5 to 8
11 Patients with ITW that have ASD/ADHD should not be	All participants	203	123 (61)	47 (23)	33 (16)	3	1 to 5
41. I allents with HW that have ASD/ADHD should not be	Orthopaedic	92	55 (60)	19 (21)	18 (20)	3	1 75 to 5
	consultants, fellows,	02	00 (00)	10 (21)	10 (20)	Ŭ	1.70 10 0
	specialists	111	00 (01)	00 (05)		0	1.1.5
	Filysiotilerapists, ANFS	111	68 (61)	28 (25)	15 (14)	3	1 to 5
Surgical treatment							
42. Referral for surgery is indicated when primary	All participants	215	19 (9)	58 (27)	138 (64)	7	6 to 8
treatment was not successful.	Orthopaedic	95	10 (11)	28 (29)	57 (60)	7	5.5 to 8
	consultants, fellows,						
	Physiotherapists, ANPs	120	9 (8)	30 (25)	81 (68)	7	6 to 9
43. The same indication for referral to primary treatment	All participants	206	59 (29)	54 (26)	93 (45)	6	3 to 7
are valid for surgical treatment.	Orthopaedic	94	27 (29)	22 (23)	45 (48)	6	3 to 8
	consultants, fellows,						
	Physiotherapists, ANPs	112	32 (29)	32 (29)	48 (43)	6	3 to 7
44. Parents should be involved in the treatment decision	All participants	218	2 (1)	10 (5)	206 (94)	9	8 to 9
making	Orthopaedic	95	1 (1)	4 (4)	90 (95)	9	8 to 9
indking.	consultants, fellows,		. ,	. ,			
	Physiotherapists, ANPs	123	1 (1)	6 (5)	116 (94)	9	8 to 9
45 Decision of surgery type (Hoke/ Open/	All participants	194	4 (2)	6 (3)	184 (95)	9	8 to 9
Gastroenomius) should be made by the operating	Orthopaedic	95	2 (2)	3 (3)	90 (95)	9	8 to 9
curgeon based on the elinical findings	consultants, fellows,	00	- (-/	0 (0)	00 (00)	Ũ	0.000
surgeon based on the chilical infulfigs.	specialists Physiotherapists ANPs	00	2 (2)	2 (2)	04 (05)	0	Q to Q
10. If other structures need addressing in surrow (a.g.	All participants	99	Z (Z)	3 (3)	94 (95)	9	8 to 9
46. If other structures need addressing in surgery (e.g.	Orthonaedic	160	8 (5) 7 (9)	20 (10)	120 (79)	0	7 to 9
plantar fascia or flexors) it can be added to the	consultants, fellows,	91	7 (8)	12 (13)	72 (79)	8	7 to 9
procedure.	specialists						
	Physiotherapists, ANPs	69	1 (1)	14 (20)	54 (78)	8	7 to 9
	All participants	194	21 (11)	43 (22)	130 (67)	7	5 to 9
	Orthopaedic consultants fellows	94	8 (9)	13 (14)	73 (78)	8	7 to 9
	specialists						

47. Patients with ITW that have ASD/ADHD should be offered the same procedure with appropriate counselling regarding recurrence rates.	Physiotherapists, ANPs	100	13 (13)	30 (30)	57 (57)	7	5 to 8
48. Patients with ITW that have ASD/ADHD should not be	All participants	190	105 (55)	52 (27)	33 (17)	3	1 to 6
considered for the same procedure as have high recurrence rates.	Orthopaedic consultants, fellows, specialists	93	57 (61)	19 (20)	17 (18)	3	1 to 5
	Physiotherapists, ANPs	97	48 (49)	33 (34)	16 (16)	4	1 to 6
49. Every surgical procedure should be followed by day	All participants	200	44 (22)	63 (32)	93 (47)	6	4 to 8
splints as a package treatment.	Orthopaedic consultants, fellows, specialists	94	33 (35)	22 (23)	39 (41)	5	3 to 8
	Physiotherapists, ANPs	106	11 (10)	41 (39)	54 (51)	7	5 to 8
50. Every surgical procedure should be followed by night	All participants	206	52 (25)	53 (26)	101 (49)	6	3.25 to 8
splints as a package treatment.	Orthopaedic consultants, fellows, specialists	95	29 (31)	23 (24)	43 (45)	6	3 to 8
	Physiotherapists, ANPs	111	23 (21)	30 (27)	58 (52)	7	4 to 8
51. Every patient going through surgery should be	All participants	202	106 (52)	54 (27)	42 (21)	3	1 to 6
referred for a gait lab session before and after surgery.	Orthopaedic consultants, fellows, specialists	94	66 (7)	16 (17)	12 (13)	2	1 to 4
	Physiotherapists, ANPs	108	40 (37)	38 (35)	30 (28)	4	3 to 7
52. There is a need for a follow up after surgical	All participants	206	34 (17)	45 (22)	127 (62)	7	5 to 9
intervention for 12 months.	Orthopaedic consultants, fellows, specialists	95	26 (27)	19 (20)	50 (53)	7	3 to 9
	Physiotherapists, ANPs	111	8 (7)	26 (23)	77 (69)	8	6 to 9
53. There is a need for a follow up after surgical	All participants	197	100 (51)	56 (28)	41 (21)	3	2 to 6
intervention for 24 months.	Orthopaedic consultants, fellows, specialists	95	52 (55)	24 (25)	19 (20)	3	2 to 6
	Physiotherapists, ANPs	102	48 (47)	32 (31)	22 (22)	4	2 to 6
54. Outcomes should be measured and documented after	All participants	218	3 (1)	6 (3)	209 (96)	9	8 to 9
any intervention.	Orthopaedic consultants, fellows, specialists	95	3 (4)	4 (4)	88 (93)	8	8 to 9
	Physiotherapists, ANPs	123	0 (0)	2 (2)	121 (98)	9	9 to 9

ADHD, attention deficit hyperactivity disorder; ADKE, ankle dorsiflexion knee extended; ANP, advanced nursing practitioner; ASD, autism spectrum disorder; ITW, idiopathic toe walking.

Table ii. Descriptive analysis of statements included in the Delphi survey Round 2.

Statement	Respondent	n	Respondent scoring, n (%)			Median	IQR
			1 to 3	4 to 6	7 to 9	-	
Definition					· ·		
2. ASD/ADHD can co-exist with ITW and is not an	All participants	213	6 (3)	33 (15)	174 (82)	8	7 to 9
exclusion to the diagnosis.	Orthopaedic consultants, fellows, specialists	99	1 (1)	19 (19)	79 (80)	8	7 to 9
	Physiotherapists, ANPs, Consultant nurse	114	5 (4)	14 (12)	95 (83)	8	7 to 9
Primary referral process							
5. Initial assessment should always include creatine	All participants	203	125 (62)	52 (26)	26 (13)	3	1 to 5
kinase test.	Orthopaedic consultants, fellows, specialists	100	54 (54)	29 (29)	17 (17)	3	1 to 5
	Physiotherapists, ANPs, Consultant nurse	103	71 (69)	23 (22)	9 (9)	3	1 to 4
Treatment decision							
9. Passive ankle dorsiflexion in patients with ITW	All participants	218	1 (0)	11 (5)	206 (94)	9	8 to 9
should be measured in knee flexion and extension in a	Orthopaedic consultants, fellows, specialists	102	1 (1)	6 (6)	95 (93)	9	8 to 9
consistent manner with the heel in neutral position.	Physiotherapists, ANPs, Consultant nurse	116	0 (0)	5 (4)	111 (96)	9	8 to 9
11. Joint contracture relevant to ITW gait is loss of any	All participants	213	19 (9)	47 (22)	147 (69)	7	6 to 8
expected dorsiflexion range.	Orthopaedic consultants, fellows, specialists	99	11 (11)	25 (25)	63 (64)	7	5.5 to 8
	Physiotherapists, ANPs, Consultant nurse	114	8 (7)	22 (19)	84 (74)	7	6 to 8
The following three statements will define joint contract	ure in children <u>under</u>	the age of	of 8 years old	/			
12. Ankle contracture relevant to ITW gait is defined as	All participants	213	11 (5)	21 (10)	181 (85)	8	7 to 9
patient who is unable to dorsiflex to plantigrade.	Orthopaedic consultants, fellows, specialists	99	6 (6)	13 (13)	80 (81)	8	7 to 9
	Physiotherapists, ANPs, Consultant nurse	114	5 (4)	8 (7)	101 (89)	9	8 to 9
13. Ankle contracture relevant to ITW gait is defined as	All participants	212	45 (21)	68 (32)	99 (47)	6	5 to 7
patient who is able to dorsiflex to plantigrade and not	Orthopaedic consultants, fellows, specialists	98	29 (30)	34 (35)	35 (36)	5	3 to 7
beyond.	Physiotherapists, ANPs, Consultant nurse	114	16 (14)	34 (30)	64 (56)	7	5 to 8
14. Ankle contracture relevant to ITW gait is defined as	All participants	212	175 (83)	19 (9)	18 (8)	2	1 to 3
patient who is able to dorsiflex to 10 degrees of dorsiflexion and not beyond	Orthopaedic consultants, fellows, specialists	97	79 (81)	9 (9)	9 (9)	1	1 to 3
	Physiotherapists, ANPs, Consultant nurse	115	96 (83)	10 (9)	9 (8)	2	1 to 3

<i>The following</i> three <i>statements will define joint contracture in children <u>over the age of 8 years old</u></i>										
15. Ankle contracture relevant to ITW gait is defined as	All participants	215	11 (5)	15 (7)	189 (88)	9	8 to 9			
patient who is unable to dorsiflex to plantigrade.	Orthopaedic consultants, fellows, specialists	100	7 (7)	9 (9)	84 (84)	9	8 to 9			
	Physiotherapists, ANPs, Consultant nurse	115	4 (3)	6 (5)	105 (91)	9	8 to 9			
16. Ankle contracture relevant to ITW gait is defined as	All participants	213	43 (20)	77 (36)	93 (44)	6	5 to 7			
patient who is able to dorsiflex to plantigrade and not	Orthopaedic consultants, fellows, specialists	98	24 (24)	31 (32)	43 (44)	6	4 to 7			
	Physiotherapists, ANPs, Consultant nurse	115	19 (17)	46 (40)	50 (43)	6	5 to 7			
17. Ankle contracture relevant to ITW gait is defined as	All participants	213	179 (84)	28 (13)	6 (3)	1	1 to 3			
patient who is able to dorsiflex to 10 degrees of	Orthopaedic consultants, fellows, specialists	100	83 (83)	13 (13)	4 (4)	1	1 to 3			
dorsinexion and not beyond.	Physiotherapists, ANPs, Consultant nurse	113	96 (85)	15 (13)	2 (2)	1	1 to 2			
18. Asymptomatic ITW without ankle joint contracture	All participants	216	19 (9)	44 (20)	153 (71)	8	6 to 9			
should not be treated.	Orthopaedic consultants, fellows, specialists	101	10 (10)	19 (19)	72 (71)	8	6 to 9			
	Physiotherapists, ANPs, Consultant nurse	115	9 (8)	25 (22)	81 (70)	9	5.5 to 9			
19. Every ITW should be treated.	All participants	215	196 (91)	12 (6)	7 (3)	1	1 to 2			
	Orthopaedic consultants, fellows, specialists	102	95 (93)	2 (2)	5 (5)	1	1 to 2			
	Physiotherapists, ANPs, Consultant nurse	113	101 (89)	10 (9)	2 (2)	1	1 to 2			
20. Lower limb pain can be an indication for treating	All participants	217	7 (3)	20 (9)	190 (88)	8	7 to 9			
ITW.	Orthopaedic consultants, fellows, specialists	101	5 (5)	13 (13)	83 (82)	8	7 to 9			
	Physiotherapists, ANPs, Consultant nurse	116	2 (2)	7 (6)	107 (92)	9	8 to 9			
21. Psychosocial impact can be an indication for	All participants	217	15 (7)	68 (31)	134 (62)	7	6 to 8			
treatment of ITW.	Orthopaedic consultants, fellows, specialists	102	7 (7)	32 (31)	63 (62)	7	6 to 8			
	Physiotherapists, ANPs, Consultant nurse	115	8 (7)	36 (31)	71 (62)	7	6 to 8			
Primary treatment										
24. Primary treatment can be provided by any trained	All participants	215	2 (1)	10 (5)	203 (94)	9	8 to 9			
and experienced health practitioner.	Orthopaedic consultants, fellows, specialists	102	1 (1)	6 (6)	95 (93)	9	8 to 9			
	Physiotherapists, ANPs, Consultant nurse	113	1 (1)	4 (4)	108 (96)	9	8 to 9			
25. Stretching programmes can be provided even if	All participants	218	4 (2)	14 (6)	200 (92)	9	8 to 9			
dorsiflexion range allows heel contact in weightbearing.	Orthopaedic consultants, fellows, specialists	102	1 (1)	8 (8)	93 (91)	9	8 to 9			
	Physiotherapists, ANPs, Consultant nurse	116	3 (3)	6 (5)	107 (92)	9	8 to 9			

27. Heel contact should be achieved in weightbearing	All participants	206	11 (5)	38 (18)	157 (76)	8	7 to 9
casts with heel raise to accommodate plantarflexion	Orthopaedic consultants,	97	10 (10)	24 (25)	63 (65)	7	6 to 9
	fellows, specialists	-				-	
	Physiotherapists, ANPs,	109	1 (1)	14 (13)	94 (86)	8	7 to 9
28 Night splints could be provided to maintain range of	All participants	218	34 (16)	49 (22)	135 (62)	7	6 to 8
20. Night spints could be provided to maintain range of	Orthopaedic consultants.	102	18 (18)	10 (10)	65 (64)	7	6 to 8
motion.	fellows, specialists	102	10 (10)	13 (13)	03 (04)	/	0100
	Physiotherapists, ANPs, Consultant nurse	116	16 (14)	30 (26)	70 (60)	7	5 to 8
29. Carbon fibre insoles could be offered to reduce toe	All participants	193	91 (47)	64 (33)	38 (20)	4	2 to 6
walking.	Orthopaedic consultants, fellows specialists	90	52 (58)	25 (28)	13 (14)	3	1 to 5
	Physiotherapists, ANPs,	103	39 (38)	39 (38)	25 (24)	5	2 to 6
33 There is no need for follow up after successful	All participants	218	29 (13)	25 (11)	164 (75)	8	7 to 9
treatment and patients could be re-referred if needed.	Orthopaedic consultants,	102	15 (15)	15 (15)	72 (71)	8	6 to 9
	Physiotherapists, ANPs, Consultant purse	116	14 (12)	10 (9)	92 (79)	8	7 to 9
34. There is need for follow up for 12 months after	All participants	217	129 (59)	42 (19)	46 (21)	2	1 to 6
successful treatment.	Orthopaedic consultants, fellows, specialists	102	58 (57)	21 (21)	23 (23)	3	1 to 6
	Physiotherapists, ANPs, Consultant nurse	115	71 (62)	21 (18)	23 (20)	2	1 to 5
37. Failure of treatment is defined as the inability to	All participants	216	8 (4)	53 (25)	155 (72)	7	6 to 8
achieve the shared goal for intervention during an	Orthopaedic consultants, fellows, specialists	101	6 (6)	29 (29)	66 (65)	7	6 to 8
agreed time frame e.g. failure to reach plantigrade stance with 6 weeks of casting.	Physiotherapists, ANPs, Consultant nurse	115	2 (2)	24 (21)	89 (77)	7	7 to 8
40. Patients with ITW that have ASD/ADHD should be	All participants	216	7 (3)	10 (5)	199 (92)	9	7 to 9
offered treatment with appropriate counselling	Orthopaedic consultants, fellows, specialists	101	3 (3)	7 (7)	91 (90)	9	7 to 9
regarding recurrence rates.	Physiotherapists, ANPs, Consultant nurse	115	4 (3)	3 (3)	108 (94)	9	7.5 to 9
Surgical Treatment							
42 Referral for surgery is indicated when primary	All participants	214	11 (5)	36 (17)	167 (78)	7	7 to 8
treatment was not successful.	Orthopaedic consultants,	101	5 (5)	17 (17)	79 (78)	7	7 to 8
	Physiotherapists, ANPs, Consultant nurse	113	6 (5)	19 (17)	88 (78)	7	7 to 8
43. The same indication for referral to primary	All participants	206	30 (15)	53 (26)	123 (60)	7	5 to 7
treatment are valid for surgical treatment.	Orthopaedic consultants, fellows, specialists	101	14 (14)	30 (30)	57 (56)	7	5 to 8
	Physiotherapists, ANPs, Consultant nurse	105	16 (15)	23 (22)	66 (63)	7	5 to 7
	All participants	210	35 (17)	62 (30)	113 (54)	7	5 to 8

49. Every surgical procedure should be followed by day splints as a package treatment.	Orthopaedic consultants, fellows, specialists	102	23 (23)	23 (23)	56 (55)	7	4 to 8
	Physiotherapists, ANPs, Consultant nurse	108	12 (11)	39 (36)	57 (53)	7	5 to 9
50. Every surgical procedure should be followed by night splints as a package treatment.	All participants	209	46 (22)	43 (21)	120 (57)	7	4 to 9
	Orthopaedic consultants, fellows, specialists	102	25 (25)	23 (23)	54 (53)	7	4 to 9
	Physiotherapists, ANPs, Consultant nurse	107	21 (20)	20 (19)	66 (62)	7	5 to 9
51. Every patient going through surgery should be	All participants	212	167 (79)	35 (17)	10 (5)	1	1 to 3
referred for a gait analysis session in a gait lab.	Orthopaedic consultants, fellows, specialists	101	79 (78)	16 (16)	6 (6)	1	1 to 3
	Physiotherapists, ANPs, Consultant nurse	111	88 (79)	19 (17)	4 (4)	1	1 to 3
52. There is a need for a follow up after surgical	All participants	209	22 (11)	30 (14)	157 (75)	9	7 to 9
intervention for at least 12 months.	Orthopaedic consultants, fellows, specialists	101	14 (14)	16 (16)	71 (70)	8	6 to 9
	Physiotherapists, ANPs, Consultant nurse	108	8 (7)	14 (13)	86 (80)	9	7 to 9

ADHD, attention deficit hyperactivity disorder; ADKE, ankle dorsiflexion knee extended; ANP, advanced nursing practitioner; ASD, autism spectrum disorder; ITW, idiopathic toe walking.