Comparing functional recovery after custom or standard total knee replacement

Basic Results Summary

Participant Flow

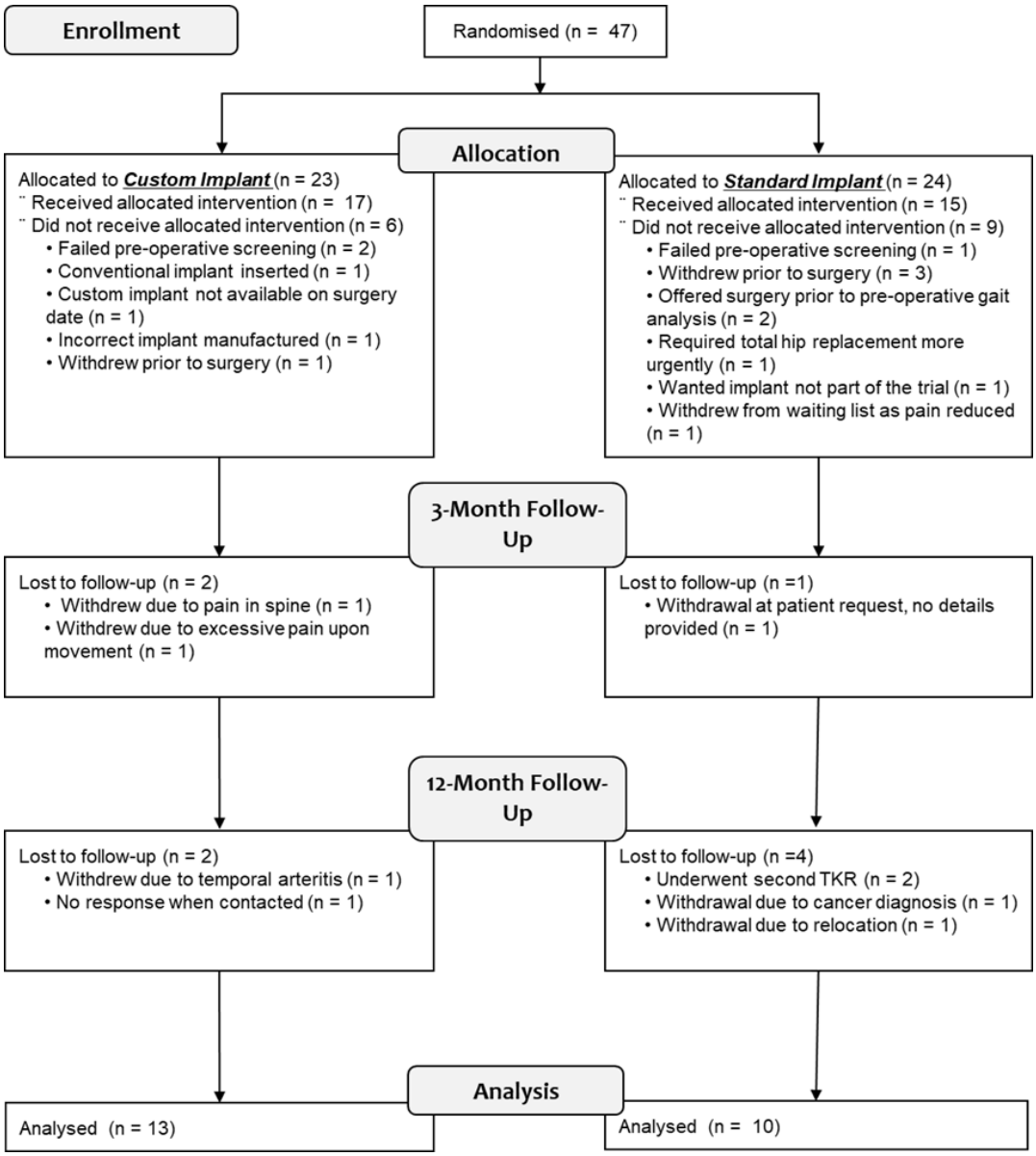

Figure 1. Consort flow diagram depicting the patient recruitment, randomisation and follow up over the course of the study

Baseline Characteristics

Table 1. Descriptive characteristics (mean (standard deviation [SD]) for healthy controls and patients within the standard (sTKA) or custom (cTKA) implant groups

	Healthy (n = 15)	**sTKA (n = 10)**	**cTKA (n = 13)**
Age (years)	68 (7)	71 (7)	73 (6)
Height (m)	1.67 (0.07)	1.65 (0.12)	1.67 (0.08)
Mass (kg)	81 (17)	89 (22)	81 (12)
BMI (kg/m^2)	29 (5)	32 (4)	29 (4)
Gender (M:F)	8:7	5:5	7:6
OKS	-	16 (5)	22 (6)
EQ-5D-5L (Score)	-	0.562 (0.192)	0.620 (0.195)
EQ-5D-5L (VAS)	-	69 (18)	72 (16)
ABC	-	51 (28)	53 (30)

BMI = Body Mass Index; OKS = Oxford Knee Score; EQ-5D-5L = EuroQol 5-dimension quality of life questionnaire; ABC = Activities and Specific Balance Confidence Scale; GAI = Gait Abnormality Index

Outcome Measures

Table 1. Descriptive characteristics (mean (standard deviation [SD]) for healthy controls and patients within the standard (sTKA) or custom (cTKA) implant groups

	sTKA			cTKA		
	Preoperative	**3-months**	**12-months**	**Preoperative**	**3-months**	**12-months**
OKS	16 (5)	34 (10)	36 (9)	22 (6)	36 (7)	40 (11)
EQ-5D-5L (Score)	0.562 (0.192)	0.858 (0.088)	0.842 (0.087)	0.620 (0.195)	0.846 (0.092)	0.836 (0.244)
EQ-5D-5L (VAS)	69 (18)	90 (13)	83 (13)	72 (16)	78 (16)	82 (17)
ABC	51 (28)	79 (22)	76 (27)	53 (30)	82 (22)	85 (27)
FJS	-	35 (26)	44 (35)	-	31 (19)	59 (28)
GAI (a.u)	1.10 (0.20)	1.18 (0.26)	1.08 (0.19)	1.35 (0.36)	1.15 (0.32)	1.06 (0.30)
GRF	N/A	N/A	N/A	N/A	N/A	N/A
Knee RoM (°)	96.0 (17.6)	89.3 (16.0)	N/A	93.7 (13.6)	91.4 (10.7)	N/A

FJS = Forgotten Joint Score; GAIT = Gait Abnormality Index a summary metric calculated from hip, knee and ankle joint motion and loading patterns; GRF = Ground Reaction Force; Knee RoM = Knee flexion and extension range of motion; N/A = Not Available currently

NOTE: Sit-to-stand and stair ascent and descent data not available at this time. Unfortunately, due to technical issues segmental acceleration and muscular activation patterns were not able to be collected during the study.

Adverse Events

There were no adverse events associated with this study.