RESULTS

The study's objectives were related to assessing the feasibility of conducting a large-scale RCT comparing the two interventions used in this study.

Baseline characteristics

Baseline characteristics are summarised by treatment group in Table 1.

Table 1: Baseline demographic and clinical characteristics

	Control (N=29)	Intervention (N=23)	Total (N=52)
Age (years)			
Mean (SD)	51.9 (9.8)	53.2 (8.2)	52.5 (9.0)
Median (IQR)	52.0 (46.0 57.0)	53.0 (46.0 59.0)	52.0 (46.0 58.5)
Missing (%)	0 (0.0)	0 (0.0)	0 (0.0)
Gender			
Male (%)	15 (51.7)	9 (39.1)	24 (46.2)
Female (%)	14 (48.3)	14 (60.9)	28 (53.8)
Missing (%)	0 (0.0)	0 (0.0)	0 (0.0)
Ethnicity			
White British (%)	11 (37.9)	4 (17.4)	15 (28.8)
White Irish (%)	1 (3.4)	0 (0.0)	1 (1.9)
White Other (%)	3 (10.3)	1 (4.3)	4 (7.7)
White and Asian (%)	1 (3.4)	1 (4.3)	2 (3.8)
Indian (%)	1 (3.4)	0 (0.0)	1 (1.9)
Bangladeshi (%)	5 (17.2)	5 (21.7)	10 (19.2)
Pakistani (%)	4 (13.8)	3 (13.0)	7 (13.5)
Other Asian* (%)	1 (3.4)	2 (8.7)	3 (5.8)
Caribbean (%)	1 (3.4)	2 (8.7)	3 (5.8)
African (%)	1 (3.4)	3 (13.0)	4 (7.7)
Other background (please specify) (%)**	0 (0.0)	1 (4.3)	1 (1.9)
Missing (%)	0 (0.0)	1 (4.3)	1 (1.9)
Duration of pain (weeks)**			
Mean (SD)	42.7 (48.1)	62.2 (47.5)	51.5 (48.3)
Median (IQR)	26.0 (20.0 52.0)	48.0 (26.0 78.0)	39.0 (26.0 77.0)
Missing (%)	2 (6.9)	1 (4.3)	3 (5.8)
Relevant medical history			
No (%)	9 (31.0)	8 (34.8)	17 (32.7)
Yes (%)	19 (65.5)	14 (60.9)	33 (63.5)
Missing (%)	1 (3.4)	1 (4.3)	2 (3.8)
If yes, number of medical conditions	N=19	N=14	N=33
Mean (SD)	2.0 (0.9)	2.2 (1.5)	2.1 (1.2)
Median (IQR)	2.0 (1.0 3.0)	2.0 (1.0 3.0)	2.0 (1.0 3.0)
Missing (%)	1 (5.3)	0 (0.0)	1 (3.0)
Has the participant ever smoked?			
No (%)	13 (44.8)	14 (60.9)	27 (51.9)
Yes (%)	16 (55.2)	8 (34.8)	24 (46.2)

	Missing (%)	0 (0.0)	1 (4.3)	1 (1.9)
Smoking status				
	Never smoked (%)	13 (44.8)	14 (60.9)	27 (51.9)
	Current smoker (%)	7 (24.1)	4 (17.4)	11 (21.2)
	Former smoker (%)	8 (27.6)	4 (17.4)	12 (23.1)
	Missing (%)	1 (3.4)	1 (4.3)	2 (3.8)
If current smokers, average number of cigarettes per day		N=7	N=4	N=11
	Mean (SD)	10.7 (6.4)	8.5 (8.2)	9.9 (6.8)
	Median (IQR)	10.0 (5.0 19.0)	9.0 (1.6 15.5)	10.0 (4.0 16.0)
	Missing (%)	0 (0.0)	0 (0.0)	0 (0.0)
If former smokers, number of years since last smoked		N=8	N=4	N=12
	Mean (SD)	9.1 (8.9)	19.8 (16.5)	12.6 (12.3)
	Median (IQR)	5.5 (3.5 13.0)	14.5 (8.0 31.5)	8.0 (4.5 17.0)
	Missing (%)	0 (0.0)	0 (0.0)	0 (0.0)
Does the participant drink alcohol				
	No (%)	7 (24.1)	3 (13.0)	10 (19.2)
	Yes (%)	9 (31.0)	5 (21.7)	14 (26.9)
	Missing (%)	13 (44.8)	15 (65.2)	28 (53.8)
If yes, average units of wine per week		N=9	N=5	N=14
	Mean (SD)	8.0 (6.6)	4.0 (.)	7.0 (5.7)
	Median (IQR)	7.0 (2.0 15.0)	4.0 (4.0 4.0)	5.5 (3.0 11.0)
	Missing (%)	6 (66.7)	4 (80.0)	10 (71.4)
If yes, average units of beer per week		N=9	N=5	N=14
	Mean (SD)	10.8 (10.3)	10.0 (.)	10.6 (8.9)
	Median (IQR)	6.5 (4.5 17.0)	10.0 (10.0 10.0)	8.0 (5.0 10.0)
	Missing (%)	5 (55.6)	4 (80.0)	9 (64.3)
If yes, average units of spirit per week		N=9	N=5	N=14
	Mean (SD)	0.5 (.)	5.6 (4.5)	4.3 (4.5)
	Median (IQR)	0.5 (0.5 0.5)	6.0 (0.9 10.0)	3.5 (0.7 8.0)
	Missing (%)	8 (88.9)	2 (40.0)	10 (71.4)

* 2 participants are regrouped to 'Other Asian' from 'Other' as they specified 'British Asian'.
** Other: 'British Mauritian'

*** Summary statistics for pain duration may be biased; database is set up to warn patients off from inputting values greater than 78 weeks. 7 patients (3 from control and 4 from intervention) put down 78 weeks as their length of pain duration. See figure A & B in Appendix C for histograms of pain duration overall and by treatment group.

Feasibility objectives

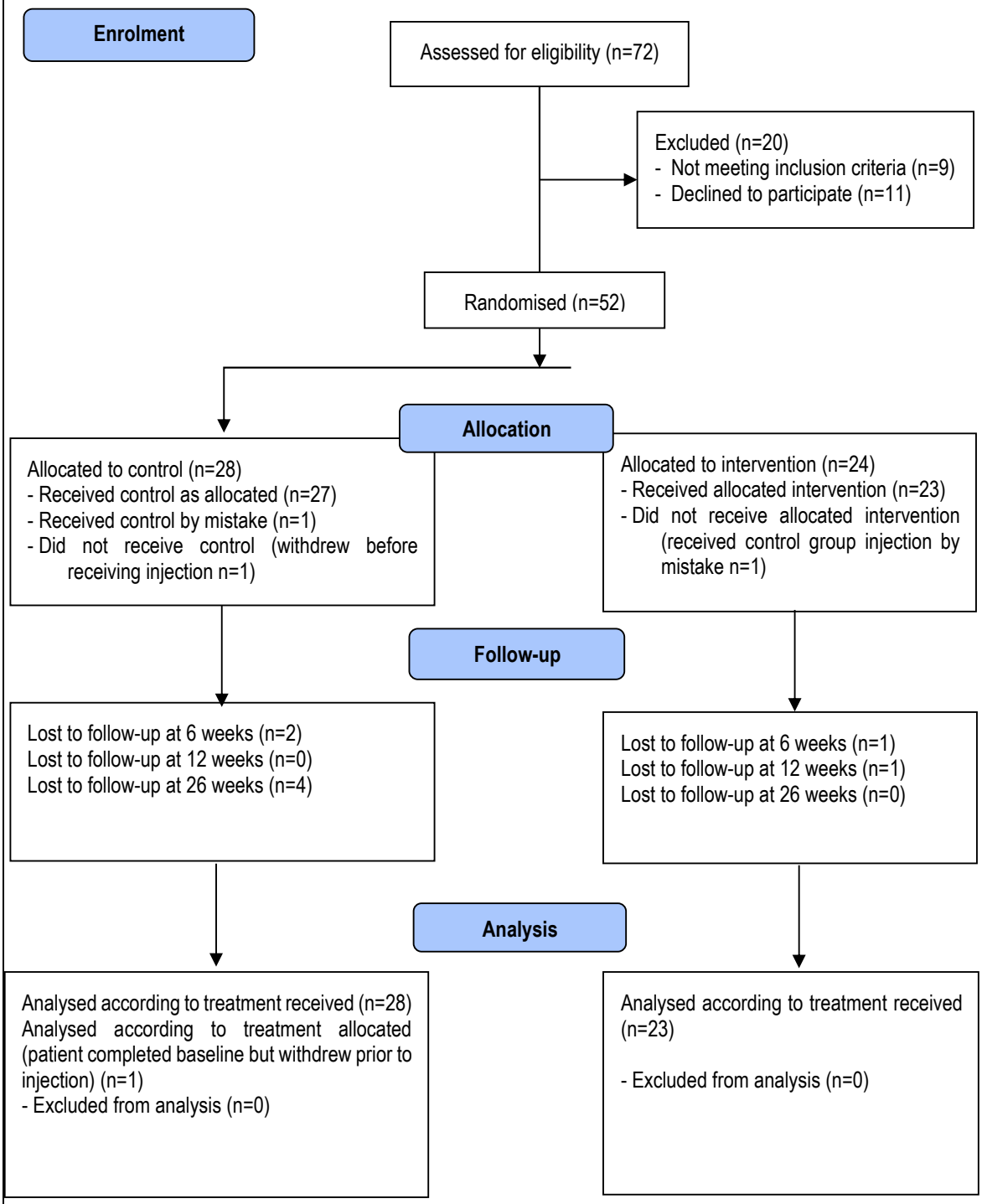
The rate of eligible participants presenting at the MSK hubs each month:

During the recruitment period 72 potential participants presented at the MSK hubs and were assessed for eligibility across the 4 sites for ACCorD. Barts sites (Tower Hamlet, Newham, and Waltham Forest) were open for recruitment for 6.74 months, ECCH site (Norfolk) was open for recruitment for 4.18 months.

The proportion of eligible participants that clinicians are willing to recruit and the proportion of eligible participants that are randomised:

63/72 (87.5%) patients were confirmed to be eligible. Out of the 63 eligible patients, 52 patients (82.5%) consented and were randomised into the trial. 14/52 (26.9%) patients were recruited at Tower Hamlet site (recruitment rate per month (RR):2.08), 18/52 (34.6%) at Newham site (RR:2.23), 15/52 (28.8%) at Waltham Forest site (RR:2.67), and 5/52 (9.6%) at Norfolk (RR:1.20).

CONSORT diagram:



Adherence to the study protocol and attrition at 6 months follow-up:

1/52 (1.9%) patient did not receive the allocated CSI injection and withdrew after baseline (see Table 2 and Table 3); this patient had completed baseline analysis and is included in the analysis for control group.

1/52 (1.9%) patient did not receive the allocated CSI&HD injection (see intervention deviation in Table 4 and Table 5) but received CSI injection instead; this patient is included in the analysis for control group.

Overall, 23/52 (44.2%) patients received CSI&HD injection; 29/52 (55.8%) patients received CSI only injection.

Table 21 and 22 show a large amount of follow-up deviations. These deviations occur largely because randomisation occurred right after baseline visit and not on the injection visit as specified in the protocol, and that there was an average 4.7 week lag between randomisation and injection

Table 2: Feasibility outcomes – recruitment and adherence by trust

Trust	Barts	ECCH	Total
Recruitment			
Patients assessed for eligibility	63	9	72
(Mean) length of recruitment period (months)	6.74	4.18	6.42
Rate of assessing patients for eligibility	9.35	2.15	11.21
Eligible patients (%)	57 (90.5)	6 (66.7)	63 (87.5)
Rate of identifying eligible patients	8.46	1.44	8.10
Eligible patients consented & randomised (%)	47 (82.5)	5 (83.3)	52 (82.5)
Rate of randomising eligible and consented patients	6.97	1.20	8.10
Participant Adherence			
Randomised patients receiving injection (%)	46 (97.9)	5 (100.0)	51 (98.1)

Table 2: Reasons for withdrawal overall and by treatment group

Withdrawal	Control (N=29)	Intervention
By PI (%)	1 (3.4)	0 (0.0)
Adverse event related (%)	0 (0.0)	0 (0.0)
By patient (%)	0 (0.0)	0 (0.0)
By patient for intervention only (%)	0 (0.0)	0 (0.0)
By patient for whole study (%)	0 (0.0)	0 (0.0)
Total	1 (3.4)	0 (0.0)

Table 3: Number and proportion of withdrawals overall and by treatment group at each time point

Withdrawal	Control (N=29)	Intervention (N=23)	Total (N=52)
Baseline (%)	0 (0.0)	0 (0.0)	0 (0.0)
V2/Injection Visit (%)	1 (3.4)	0 (0.0)	1 (1.9)
V3 (%)	0 (0.0)	0 (0.0)	0 (0.0)
V4 (%)	0 (0.0)	0 (0.0)	0 (0.0)
V5 (%)	0 (0.0)	0 (0.0)	0 (0.0)
Beyond V5 (%)	0 (0.0)	0 (0.0)	0 (0.0)
Total (%)	1 (3.4)	0 (0.0)	1 (1.9)

Table 4: Number and types of deviations overall and by site

	Tower Hamlets (N=14)		Newham (N=15)		Waltham Forest (N=18)		Norfolk (N=5)		Total (N=52)	
Deviation	**N (Events)**	**N (Pts) (%)**	**N (Events)**	**N (Pts) (%)**	**N (Events)**	**N (Pts) (%)**	**N (Events)**	**N (Pts) (%)**	**N (Events)**	**N (Pts) (%)**
Data deviation (%)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)
Deviation in consent (%)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)
Randomisation deviation (%)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)
Intervention deviation* (%)	1	1 (7.1)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)	1	1 (1.9)
Follow-up deviation (%)	51	14 (100.0)	54	14 (93.3)	54	17 (94.4)	12	5 (100.0)	171	50 (96.2)
Randomisation (before baseline) (%)	1	1 (7.1)	3	3 (20.0)	2	2 (11.1)	0	0 (0.0)	6	6 (11.5)

Injection (before baseline) (%)	0	0 (0.0)	1	1 (6.7)	0	0 (0.0)	0	0 (0.0)	1	1 (1.9)
Injection (>5 days from randomisation) (%)	14	14 (100.0)	14	14 (93.3)	16	16 (88.9)	5	5 (100.0)	49	49 (94.2)
V3 (outside 5-7 weeks from randomisation) (%)	14	14 (100.0)	13	13 (86.7)	14	14 (77.8)	2	2 (40.0)	43	43 (82.7)
V4 (outside 11-13 weeks from randomisation) (%)	12	12 (85.7)	10	10 (66.7)	11	11 (61.1)	2	2 (40.0)	35	35 (67.3)
V5 (outside 25-27 weeks from randomisation) (%)	10	10 (71.4)	13	13 (86.7)	11	11 (61.1)	3	3 (60.0)	37	37 (71.2)
Other deviation** (%)	0	0 (0.0)	0	0 (0.0)	1	1 (5.6)	0	0 (0.0)	1	1 (1.9)
Total	52	14 (100.0)	54	14 (93.3)	55	17 (94.4)	12	5 (100.0)	173	50 (96.2)

Table 5: Number and types of deviations overall and by treatment groups

	Control (N=29)		Intervention (N=23)		Total (N=52)	
Deviation	**N (Events)**	**N (Pts) (%)**	**N (Events)**	**N (Pts) (%)**	**N (Events)**	**N (Pts) (%)**
Data deviation (%)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)
Deviation in consent (%)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)
Randomisation deviation (%)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)
Intervention deviation* (%)	1	1 (3.4)	0	0 (0.0)	1	1 (1.9)
Follow-up deviation (%)	98	28 (96.6)	73	22 (95.7)	171	50 (96.2)
Randomisation (before baseline) (%)	2	2 (6.9)	4	4 (17.4)	6	6 (11.5)
Injection (before baseline) (%)	1	1 (3.4)	0	0 (0.0)	1	1 (1.9)
Injection (>5 days from randomisation) (%)	27	27 (93.1)	22	22 (95.7)	49	49 (94.2)
V3 (outside 5-7 weeks from randomisation) (%)	26	26 (89.7)	17	17 (73.9)	43	43 (82.7)
V4 (outside 11-13 weeks from randomisation) (%)	21	21 (72.4)	14	14 (60.9)	35	35 (67.3)
V5 (outside 25-27 weeks from randomisation) (%)	21	21 (72.4)	16	16 (69.6)	37	37 (71.2)
Other deviation** (%)	0	0 (0.0)	1	1 (4.3)	1	1 (1.9)
Total	99	28 (96.6)	74	22 (95.7)	173	50 (96.2)

Table 6: Feasibility outcomes – recruitment and adherence by site

Site	**Tower hamlets**	**Newham**	**Waltham For**
Recruitment			
Eligible patients consented & randomised	14	15	18
Rate of randomising eligible and consented patients	2.08	2.23	2.67
Participant Adherence			
Randomised patients receiving injection (%)	14 (100.0)	14 (93.3)	18 (100.0)

Table 7: Feasibility outcome – concordance in baseline variables between CRF-collected and routinely-collected data from CEGs

	Participants with CEG data	**Participants with usable CEG data***	**Participants with usable CRF data**	**Participants with usable CEG and CRF data**	**Inconsistency between CEG & CRF data****
Age (%)	43 (82.7)	43 (82.7)	52 (100.0)	43 (82.7)	34 (79.1)
Gender (%)	43 (82.7)	43 (82.7)	52 (100.0)	43 (82.7)	1 (2.3)
Ethnicity (%)	43 (82.7)	34 (65.4)	51 (98.1)	33 (63.5)	8 (24.2)
Smoking (%)	43 (82.7)	41 (78.8)	51 (98.1)	40 (76.9)	6 (15.0)
Smoking status (%)	43 (82.7)	41 (78.8)	50 (96.2)	39 (75.0)	5 (12.8)
Alcohol (%)	43 (82.7)	38 (73.1)	24 (46.2)	17 (32.7)	2 (11.8)
Alcohol units (per week) (%)	43 (82.7)	38 (73.1)	13 (25.0)	7 (13.5)	7 (100.0)

Smoking: has the participant ever smoked? Smoking status: never smoked/ current smoker/ ex-smoker? Alcohol: does the participant drink?
* CEG 'NULL' responses and responses that do not map to any categories on CRF (e.g. ethnicity: 'Italian') are removed from comparison.

Table 8: Feasibility outcome – concordance in baseline variables between CRF-collected and routinely-collected data from Barts

	Participants with linked BH data	Participants with useful BH data*	Participants with useful CRF data	Participants with useful BH & CRF data	Inconsistency between BH & CRF data**
Date of birth (%)	47 (90.4)	47 (90.4)	52 (100.0)	47 (90.4)	0 (0.0)
Gender (%)	47 (90.4)	47 (90.4)	52 (100.0)	47 (90.4)	1 (2.1)
Ethnicity (%)	47 (90.4)	47 (90.4)	51 (98.1)	46 (88.5)	13 (28.3)

* BH 'NULL' responses and responses that do not map to any categories on CRF (e.g. ethnicity: 'Italian') are removed from comparison.

Complications

Table 9: Total number of AEs by treatment groups and overall

	Control (N=29)		Intervention (N=23)		Total (N=52)	
	N (Events)	N (Pts) (%)	N (Events)	N (Pts) (%)	N (Events)	N (Pts) (%)
Complications (Expected AE)	5	3 (10.3)	4	4 (17.4)	9	7 (13.5)
Pain at injection site	3	3 (10.3)	3	3 (13.0)	6	6 (11.5)
Cutaneous infection at infection site	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)
Loss of subcutaneous fat at injection site causing a skin dimple	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)
Steroid flare (transient significant increase of pain symptoms lasting usually no more than 72 hours)	0	0 (0.0)	1	1 (4.3)	1	1 (1.9)
Disturbance of menstrual cycle	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)
Transient weakness in arm muscles caused by local anaesthetic leaking around nerves and having a temporary numbing effect lasting no more than a couple of hours	1	1 (3.4)	0	0 (0.0)	1	1 (1.9)
Significant disturbance in blood sugar level in diabetic patients due to administration of corticosteroid	1	1 (3.4)	0	0 (0.0)	1	1 (1.9)
Development of septic arthritis due to the introduction of infection to the shoulder joint following injection	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)
Unexpected AE	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)
Total	5	3 (10.3)	4	4 (17.4)	9	7 (13.5)