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## CLINICAL OUTCOMES OF NURSE-LED CARE FOR PEOPLE WITH RA: A MULTICENTRE RCT

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### Background:

Despite the development of the innovative rheumatology nurse-led clinics (NLC) in the UK, the evidence of their effectiveness is limited.

### Objectives:

To compare the outcomes of NLC to those obtained by rheumatologist-led clinics (RLC) for people with RA. The null hypothesis tested is that NLC is inferior to RLC.

### Methods:

This was a multi-centred, non-inferiority RCT. The non-inferiority margin was DAS28 change of 0.6 from baseline (primary outcome) and standardised effect size for secondary outcomes (pain, fatigue, stiffness, RAQoL, HAQ, HAD, ASES and EQ5D-VAS). Patients were assessed at baseline and at weeks 13, 26, 39 & 52. Mean differences between the two groups at follow-up were estimated using linear mixed models controlling for age, gender, centre, baseline DAS28 and corresponding baseline values for secondary outcomes. This was done following per-protocol (PP) and Intention-to-treat (ITT) strategies. Level of patient satisfaction was also compared between groups.

### Results:

Patients under NLC (n=91) were comparable to those under RLC (n=90) in their demographic and baseline characteristics. Their mean (SD) age was 58.5 (11.6); disease duration 9.9 (10.7) years and 74% were female.

NLC made fewer medication changes, ordered fewer X-Rays but made more conferrals, gave more patient education and psychosocial support than RLC. There was little difference in the numbers of referrals made to other health professionals.

Change scores (for DAS28) at each follow-up time point and overall differences between the two groups (all outcomes) are presented in Table 1. The primary outcome demonstrated that NLC was not inferior to RLC at any follow-up time. Confidence interval estimates for all outcomes included zero; the standardized effect sizes in each case were 'small'. The results were similar for the PP and ITT analyses. Levels of patient satisfaction were on average greater for the NLC group.

**Table 1: Changes in DAS28 and secondary outcomes between the two groups (PP results)**

	RLC Mean (SD)	NLC Mean (SD)	Mean Difference (95% CI)
DAS28 Week 13	-0.11 (1.48)	-0.04 (1.30)	-0.17 (-0.53, 0.20)
DAS28 Week 26	0.03 (1.49)	0.05 (1.22)	-0.12 (-0.49, 0.25)
DAS28 Week 39	0.18 (1.61)	0.36 (1.19)	-0.25 (-0.62, 0.12)
DAS28 Week 52	0.18 (1.41)	0.07 (1.22)	0.01 (-0.36, 0.38)
Average (pooled) differences between the two groups over the whole follow-up period			
DAS28	0.07 (1.50)	0.11 (1.24)	-0.13 (-0.42, 0.15)
Pain	-3.06 (27.3)	1.62 (26.8)	-2.39 (-7.85, 3.07)
Fatigue	1.97 (27.4)	-1.26 (25.4)	3.95 (-1.33, 9.24)
Stiffness	5.78 (61.5)	-4.90 (52.9)	8.30 (-3.28, 19.9)
RAQoL	0.64 (5.86)	0.07 (4.93)	0.17 (-1.40, 1.75)
HAQ	0.01 (0.46)	0.06 (0.48)	-0.06 (-0.19, 0.08)
HAD-Anxiety	0.76 (3.46)	-0.03 (2.69)	0.67 (-0.12, 1.46)
HAD- Depression	0.25 (3.19)	0.17 (2.89)	0.03 (-0.71, 0.77)
ASES	-2.83 (15.4)	-0.46 (17.0)	-0.46 (-4.37, 3.44)
EQ5D-VAS	-2.05 (21.6)	1.30 (18.9)	-1.44 (-5.68, 2.80)

**Conclusions:** This was the first multicentre RCT of effectiveness of rheumatology NLC in the UK. The findings provide robust evidence against the null hypothesis; demonstrating that NLC is well-received and effective in the management of RA.

**Disclosure of Interest:** None Declared

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