

## Letter to the Editor (Other)

Rheumatology Advances in Practice 2020;0:1–3

doi: 10.1093/rap/rkaa047

Advance Access Publication 22 September 2020

### Accessing health services for musculoskeletal diseases during early COVID-19 lockdown: results from a UK population survey

SIR, restricting the spread of COVID-19 in the UK required radical changes to the structure of society and the delivery of health care. This has the potential for wide-ranging adverse consequences for people with musculoskeletal diseases. For the period between 23 March and 1 August 2020, those determined to be most at risk were required to 'shield' at home, avoiding all social contact. Primary and secondary care services postponed or cancelled non-urgent appointments. Remote consultations were provided by telephone or video [1]. The public were encouraged only to use health-care services for urgent needs. Local pharmacies, although remaining open, reported reduced patient consultations. Non-National Health Service (NHS) providers of musculoskeletal health services, including physiotherapists and podiatrists, closed [2].

In late April 2020, 5 weeks after the start of the UK 'lockdown', we conducted an online survey in a group of patients with a range of musculoskeletal diseases to assess the impact that the measures had on their well-being and ability to access health care. The survey was conducted using the Qualtrics platform (XM Platform, Qualtrics LLC, USA). It targeted 1376 subjects enrolled on the Norfolk Arthritis Register (NOAR), a large population-based cohort of patients originally identified as having inflammatory arthritis [3], and was also distributed to the wider UK population through social media and email lists from organizations including Arthritis Action, National RA Society, National Ankylosing Spondylitis Society, Fibromyalgia UK and Scope. The survey was open from 28 April 2020 to 27 May 2020. Respondents provided informed consent and were asked a series of questions relating to demographic characteristics, use of health-care services, disease activity, disability status, perceived isolation (measured using the Lubben Social Network Scale-6 [4]) and loneliness (measured using the revised UCLA Loneliness Score-3 item [5]). Descriptive statistics were used to summarize the characteristics of the sample and their access to health service provision. Student's unpaired *t*-tests were used to assess the association between participants' access to health care (yes/no) and continuous measures of pain, stiffness, perceived general health, Lubben Social Isolation (scored from 0 to 30; higher

scores equate to greater social isolation) and UCLA loneliness score (scored from 3 to 9; higher scores equate to greater loneliness). The statistical analyses were conducted on STATA v.16.0 (StataCorp, College Station, TX, USA). The study was approved by the University of East Anglia's Faculty of Medicine and Health Sciences Research Ethics Committee (reference: 2019/20-104; 2019/20-105).

In total, 264 responded from the NOAR cohort (19%), and 414 from the wider population completed the survey. This provided a combined cohort of 678 respondents for analysis. Their characteristics and survey responses are summarized in Table 1. A wide range of inflammatory and non-inflammatory diseases were represented, with RA (43.5%) and OA (21.7%) reported most commonly. There were no important differences in the characteristics or responses in the NOAR and non-NOAR RA patients, and the results were pooled for analysis.

The majority (52.1%) reported that their musculoskeletal symptoms had increased since the start of 'lockdown'. Most respondents (88.2%) reported little difficulty accessing medication. Forty-four per cent of respondents needed the assistance of others to do this. A third of patients reported needing to access either their general practitioner or hospital rheumatology department in this period. The respondents gave equivocal responses when asked about the challenges in obtaining advice from health professionals. As might be expected, those who accessed health care reported significantly greater pain, stiffness and poorer general health ( $P < 0.01$ ). Individuals who reported greater social isolation (mean difference 1.0 points;  $P = 0.02$ ) and greater loneliness (mean difference 0.6 points;  $P < 0.01$ ) were less likely to access health care. Although these differences reflect relatively small differences in degrees of social isolation, their statistical significance indicates the wider impact on the health-seeking behaviours of patients.

This survey, conducted in the early stages of the UK 'lockdown', suggests that there have been immediate negative consequences for people with musculoskeletal disease. Despite the swift transformations in the configuration of health care that have taken place, patients have, in the main, been able to access primary care and hospital rheumatology departments. However, those with higher levels of social isolation access health care the least.

Should further isolation measures need to be enforced as the pandemic continues, particular efforts should be made to protect and support the socially isolated as a

**TABLE 1** Respondent characteristics and responses to health provision access from April to May 2020

Characteristics		Frequency (%)	
N		678	
Gender	Female	550 (81.1)	
	Male	125 (18.4)	
	Non-binary	1 (0.1)	
	Prefer to self-describe	1 (0.1)	
	Prefer not to say	1 (0.1)	
Age, years	18–30	21 (3.1)	
	31–40	42 (6.2)	
	41–50	106 (15.6)	
	51–60	168 (24.8)	
	61–70	195 (28.8)	
	71–80	129 (19.0)	
	80+	17 (2.5)	
	Region of respondent	England	640 (94.4)
	Scotland	19 (2.8)	
	Wales	17 (2.5)	
	Northern Ireland	2 (0.3)	
Ethnic group	White	660 (97.3)	
	Mixed/multiple ethnic group	6 (0.9)	
	Asian	7 (1.0)	
	Black, African, Caribbean	2 (0.3)	
	Arab	1 (0.1)	
Musculoskeletal diagnosis	RA	295 (43.5)	
	OA	147 (21.7)	
	Mechanical low back pain	66 (9.7)	
	FM	64 (9.4)	
	PsA	62 (9.1)	
	Inflammatory polyarthritis	62 (9.1)	
	Hypermobility	40 (5.9)	
	Specific musculoskeletal diagnosis not reported	32 (4.7)	
	CTD (e.g. lupus, scleroderma, myositis)	25 (3.8)	
	AS	22 (3.2)	
	Osteoporosis	18 (2.7)	
	PMR	10 (1.5)	
	Ligament/tendon injury/bursitis	9 (1.3)	
	Neck pain	6 (0.9)	
	Gout	5 (0.7)	
	Other	60 (8.6)	
	How have your musculoskeletal symptoms been since the COVID measures started?	Decreased	42 (6.3)
		Stayed the same	279 (41.6)
		Increased	349 (52.1)
	Pain, scale: 0–10	Mean (s.d.)	4.8 (2.6)
Stiffness, scale: 0–10	Mean (s.d.)	4.9 (2.9)	
General health, scale: 0–10	Mean (s.d.)	4.1 (2.4)	
Total Lubben Social Network Score, scale: 0–30	Mean (s.d.)	20.7 (5.7)	
Total UCLA Loneliness, scale: 3–9	Mean (s.d.)	5.1 (2.0)	
Difficulty accessing medication	Yes	79 (11.8)	
	No	592 (88.2)	
Required someone to help access medications	Yes	294 (43.8)	
	No	377 (56.2)	
Changed medications since COVID-19 outbreak	Yes	97 (14.5)	
	No	574 (85.5)	
Required to seek advice from a health professional on condition	Yes	235 (35.0)	
	No	436 (65.0)	
Who did you contact	General practitioner	152 (22.5)	
	Practice nurse/GP nurse practitioner	22 (3.2)	
	Rheumatology department	88 (13.0)	
	Physiotherapy or occupational therapist	16 (2.4)	

(continued)

TABLE 1 Continued

Characteristics	Frequency (%)
Pharmacist	14 (2.1)
Hospital department (non-musculoskeletal)	10 (1.5)
A&E	3 (0.4)
Private chiropractor, osteopath or massage therapist	1 (0.1)
Royal Osteoporosis Society	1 (0.1)
Endocrinology department	7 (1.0)
Pain clinic	2 (0.3)
Counsellor or health psychologist	2 (0.3)
Massage therapist	1 (0.1)
Podiatrist	1 (0.1)
Nutritionist	1 (0.1)
NHS 111	2 (0.3)
How easy has it been to get advice? Scale: 0–10	Mean (s.d.) 4.8 (3.3)

A&E: accident and emergency; GP, general practitioner; NHS: National Health Service; UCLA: University of California Los Angeles.

vulnerable group. In designing musculoskeletal services, health-care providers need to use their resources to reach out to individual patients who do not come forward for advice and who might be struggling silently with their disease.

## Acknowledgements

The authors thank the following organizations that assisted in distributing the survey across their networks: Pain Concern; Arthritis Action; National Rheumatoid Arthritis Society; National Ankylosing Spondylitis Society; Paget's Association; Parathyroid UK; The Health Policy Partnership; and Scope.

*Funding:* This study was supported by funding from Action Arthritis and the University of East Anglia, UK.

*Disclosure statement:* The authors have declared no conflicts of interest.

**Toby O. Smith**<sup>1,2</sup>, **Karen Durrant**<sup>3</sup>, **Linda Birt**<sup>1</sup>, **Pippa Belderson**<sup>3,4</sup>, **Jackie Chipping**<sup>3</sup>, **Max Yates**<sup>3,4</sup>, **Jordan Tsigarides**<sup>3,4</sup>, **Caitlin Notley**<sup>3</sup>, **Felix Naughton**<sup>2</sup>, **Lee Shepstone**<sup>3</sup> and **Alexander J. MacGregor**<sup>3,4</sup>

<sup>1</sup>School of Health Sciences, University of East Anglia, Norwich, <sup>2</sup>Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Oxford, <sup>3</sup>Norwich Medical School, University of

East Anglia, Norwich, and <sup>4</sup>Rheumatology Department, Norfolk and Norwich University Hospital NHS Foundation Trust, Norwich, UK

Accepted 03 September 2020

Correspondence to: Alex Macgregor, Norwich Medical School, University of East Anglia, Norwich NR4 7TJ, UK.  
E-mail: a.macgregor@uea.ac.uk

## References

- Saini KS, de Las Heras B, de Castro J *et al.* Effect of the COVID-19 pandemic on cancer treatment and research. *Lancet Haematol* 2020;7:e432–5.
- Public Health England [Internet]. COVID-19: infection prevention and control guidance. [Updated 2020.] [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/886668/COVID-19\\_infection\\_prevention\\_and\\_control\\_guidance\\_complete.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/886668/COVID-19_infection_prevention_and_control_guidance_complete.pdf).
- Symmons DP, Barrett EM, Bankhead CR, Scott DG, Silman AJ. The incidence of rheumatoid arthritis in the United Kingdom: results from the Norfolk Arthritis Register. *Br J Rheumatol* 1994;33:735–9.
- Lubben J. Assessing social networks among elderly populations. *Fam Comm Health* 1988;11:42–52.
- Russell DW. UCLA Loneliness Scale (Version 3): reliability, validity, and factor structure. *J Personality Assess* 1996;66:20–40.