

## Musculoskeletal training in Rheumatology - What the trainees think

Kavitha Nadesalingam, Eleana Ntatsaki, Dobrina Hull & Rod Hughes

### Abstract

One in four adults are affected by longstanding musculoskeletal (MSK) problems, which are responsible for up to 30% of GP consultations. With a move towards providing rheumatology services in the community there is need for rheumatology trainees to become competent in diagnosing and managing MSK conditions. Rheumatology trainees have expressed the anecdotal view that training in MSK is compromised, partly due to the reduction of referrals of MSK conditions to secondary care and partly due to the focus on more complex inflammatory conditions.

A survey was carried out on behalf of the Rheumatology Specialist Advisory Committee, to assess rheumatology trainees' confidence and ability in dealing with MSK conditions during, and on recent completion of training. The survey was sent to the rheumatology trainee representative of each LETB, to be disseminated to rheumatology trainees in their region. 77 responses from a total of an estimated 223 trainees were received. 20 of these surveys were incomplete, with not all questions being answered. Responses from trainees across all career grades from ST3 to 2 years post Certificate of Completion of Training were received.

92% thought MSK medicine to be an important part of rheumatology training; 64% had managed patients with soft tissue pathology on a daily basis; 30% felt they managed MSK conditions on a weekly basis; 32% of trainees felt they were not yet confident in diagnosing and distinguishing between different types of soft tissue pathologies; 16% felt they were lacking in competency for their level of training in managing MSK pathologies as outlined in the JRCPTB 2010 rheumatology curriculum; the majority of trainees felt they were either partially competent in all, or some areas, satisfactory for their level of training; 67% felt their training in injection techniques had been at least 'adequate'. Exposure to, and experience with MSK medicine in current jobs and throughout training ranged from poor to excellent.

Within this limited survey, the views of 77 trainees have shown that training in MSK could be improved at all levels. Although trainees felt they were lacking confidence in dealing with certain areas of MSK medicine, when competencies were mapped out to the rheumatology curriculum, trainees felt they were achieving appropriate competency for their level of training. Trainees were keen to have further MSK training specifically in sports medicine. Free text comments for ways to improve skills repeatedly mentioned shadowing physiotherapists and exposure to more teaching and supervision focusing on examination techniques.

With changes in the nature and geography of rheumatology services we feel these aspects of training should not be overlooked to ensure trainees are equipped to deal independently with MSK conditions by completion of training.

**Keywords:** Musculoskeletal medicine, rheumatology training, medical education and training

**Abbreviations:** MSK - musculoskeletal

One in four adults are affected by musculoskeletal (MSK) problems, which account for up to 30% of General Practice (GP) consultations in the United Kingdom.<sup>1</sup> Some GPs have direct access to community MSK services, but when not available, referrals are made to secondary care departments such as rheumatology. MSK training involves the skills that a rheumatologist needs to achieve competencies in the diagnosis and treatment of soft tissue rheumatism as opposed to inflammatory rheumatic joint disease.

It has been reported that junior doctors in the United Kingdom fail to routinely screen for MSK conditions on admission onto general medical or surgical wards<sup>2</sup> which may be reflective of training issues. It was in our anecdotal opinion that MSK training at higher specialist training was being compromised as

well. Within the United Kingdom doctors in training typically begin work as a first year rheumatology trainee four years after graduation from medical school following completion of both a two year foundation programme (encompassing a generic training programme which forms the bridge between medical school and specialist/general practice training) and a two year Core Medical Training programme, (involving 2 years of training, undertaking between four and six rotations in different medical specialties). At the time of writing, higher specialty training, such as in rheumatology, began at the level of Specialist Trainee 3 (ST3) and was either a four year training programme or a 5 year training programme if trainees were dually accrediting in general medicine.<sup>3</sup> Higher specialist training involves rotating through different rheumatology

departments within each Local Education Training Board (LETB).

In our opinion, the basic MSK skill set is essential to the training of a competent rheumatologist and trainees gain overall MSK competencies within routine clinical practice as they rotate through different hospitals during training. However, in some training programmes, there is very little MSK training opportunities, as MSK centres operating in the community in the United Kingdom, mean that these patient groups are not being treated in training hospitals. Faculty in these centres are competent to train, but training opportunities in MSK centres are reduced.

Rheumatology registrars in-training have expressed the anecdotal view that MSK training may be compromised, partly due to the reduction of referrals to secondary care and partly due to the inevitable focus on training in the more complex inflammatory conditions.

Rheumatology trainees in the UK were surveyed in 2015 on behalf of the Rheumatology Specialist Advisory Committee to assess confidence and ability in dealing with MSK conditions during and on recent completion of training. The survey was disseminated to rheumatology trainees via the trainee representative from each LETB.

77 responses were received across 15 LETBs from a total of an estimated 223 trainees. 20 of these surveys were incomplete, with not all questions being answered but those questions answered were considered in the results of this survey. Responses from trainees across all career grades from ST3 (1<sup>st</sup> year of specialist training) to 2 years post Certificate of Completion of Training were received.

58 out of 63 doctors (92%) thought MSK medicine to be an important part of rheumatology training. Free text comments recognised that MSK conditions were frequently referred to rheumatology and differentiating between inflammatory and non-inflammatory pain is important.

Only 41 out of 64 doctors (64%) felt they managed patients with soft tissue pathology on a daily basis and 20 out of 63 (32%), felt they were not yet confident in diagnosing and distinguishing between different types of soft tissue pathologies.

Exposure to, and experience with MSK medicine in current jobs and throughout training ranged from poor to excellent.

Only 9 out of 58 trainees (16%) felt they were lacking in competency for their level of training in managing the MSK pathologies outlined in the Joint Royal Colleges of Physicians Training Board (JRCPTB) 2010 rheumatology curriculum. The majority of trainees felt they were either partially competent in all, or some areas, satisfactory for their level of training.

Interestingly, only 39 out of 58 trainees (67%) felt their training in injection techniques had been at least 'adequate'. Some trainees mentioned they had been self-taught in some injection procedures and training had been limited in certain soft tissue injections (most commonly plantar fasciitis, tendon sheath and elbow entheses injections).

This survey has limitations in that the numbers of trainees surveyed were small. However, our total response number considering the usual poor response rate for online surveys is reasonable. Our survey was not validated and it is likely that there will be an element of selection bias in the responses received.

However, one of the strengths of our survey is the ability to review responses by seniority. We analysed further the confidence rating according to training level grade and we looked into two main subgroups, the more junior trainees (ST3 and ST4s) and the more senior trainees (ST6 and ST7). As expected the more junior cohort rated their confidence slightly lower compared to the more experienced group. Within the junior group (n=17) only 41% suggested they felt confident for their level of training when generically asked about their general diagnostic skills on MSK, which improved to 59% when this question was mapped to the curriculum. In the senior group of ST6 and ST7 (n=25), the confidence levels were significantly higher (80% felt confident appropriate to their level of training) and there was no change in confidence levels when skills were mapped to the curriculum. (Table 1). This may reflect the natural increase in experience and exposure to MSK medicine with progression in training, but also the better understanding of the curriculum requirements by the more senior trainees. Only one fully completed survey was received from a rheumatologist post Certificate of Completion of Training making this subgroup too small for further analysis.

Table 1:

	(n)	Q6) Confidence in dealing with MSK	% Q6	Q9) Confidence mapped to curriculum	% Q9
ST3 and ST4- junior	17	7	0.41	10	0.59
ST6 and ST7- senior	25	20	0.8	20	0.8

Q6) How confident do you feel in diagnosing and distinguishing between different types of soft tissue pathologies/MSK in your daily practice? Q9) Do you feel competent in diagnosing and managing the above MSK pathologies outlined in the 2010 rheumatology curriculum?

Within this limited survey, the views of 77 trainees have shown that training in MSK could be improved for rheumatologists in training at all levels. Although trainees felt they were lacking

confidence in dealing with certain areas of MSK medicine, when competencies were mapped out to the rheumatology curriculum, trainees felt they were achieving appropriate competency for their level of training although this was not assessed objectively.

The trainees' perception of the level of competency needed in dealing with MSK conditions seemed to overestimate the requirement of the 2010 rheumatology curriculum. In clinical practice, trainees may feel they encounter different MSK pathologies, which they are being expected to manage which are not being given sufficient emphasis within their curriculum. Further questioning in this area may conceivably lead to adjustments within the curriculum and the training programmes.

In particular, to improve training in MSK medicine, rheumatology trainees valued teaching from physiotherapists and being able to attend specialist sports medicine clinics. Trainees who had 'independently' taken time to gain experience in this way felt that their training had benefitted. To support trainees in achieving these competencies it may be worthwhile adding a prerequisite in the Annual Review of Career Progression (ARCP) process (a formal method in UK medical training by which a trainee's progression through their training programme is monitored and recorded) to ensure dedicated time is set aside for this aspect of MSK rheumatology training. Completion in a range of direct assessments such as Clinical Evaluation Exercises (miniCEX), and DOPs (Directly Observed Procedures) may ensure competency in this aspect of rheumatology training as well as secure confidence in dealing with MSK conditions and soft tissue pathology.

With changes in the nature and geography of rheumatology specialist services we feel these aspects of rheumatology training

should not be overlooked so trainees are equipped to deal with MSK conditions independently by their completion of training.

#### Competing Interests

None declared

#### Author Details

Dr KAVITHA NADESALINGAM, MBChB, MRCP (Rheumatology), Leeds Teaching Hospitals NHS Trust, Chapel Allerton Hospital, Leeds, LS7 4SA, UK. ELEANA NTATSAKI Norfolk and Norwich University Hospital, Department of Rheumatology, Colney Lane, Norwich, NR4 7UY, UK. DOBRINA HULL, Queen Elizabeth Hospital, Rheumatology, Stadium Road, Woolwich, London SE18, UK. ROD HUGHES, Ashford and St Peter's Hospital Trust, Rheumatology, St Peters Hospital Guildford Road, Chertsey, KT16 0PZ, UK.

CORRESPONDENCE: KAVITHA NADESALINGAM, Chapel Allerton Hospital, Chapeltown Road, Chapel allerton, Leeds, LS7 4SA, UK.

Email: kavitha\_nades@hotmail.com

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