

# Sport and exercise medicine in the UK: what juniors should know to get ahead

Liam Richard West,<sup>1</sup> Steffan Griffin<sup>2</sup>

Are you sick and tired of pushing so many pills to your patient for their various ailments that by 9:15 you can hear them rattling in the corridor? Would you rather empower them to be physically active in a safe, prescribed way to help them manage these diseases and improve their overall health? Exercise medicine might be for you.

Do you want to work with a highly motivated patient demographic that will go above and beyond to overcome illness and injury? Do you want to use your medical knowledge to increase sporting performance, all while being able to escape the clinic and share in some of the world's most iconic sporting moments? Maybe sports medicine is for you. Welcome to the exciting and refreshing approach to medicine offered by the specialty of sports and exercise medicine (SEM); putting the 'Health' back into the National Health Service (NHS).

## WHAT DO SEM DOCTORS DO?

A popular image is that SEM doctors just care for professional or amateur athletes, manage their medical conditions and musculoskeletal injuries in an attempt to improve their performance. However, there is an increasing need for SEM doctors to manage inactive or obese patients by providing education about and safe prescriptions for physical activity that gets patients to treat or prevent various non-communicable diseases such as diabetes mellitus and hypertension.<sup>1</sup>

SEM doctors often work in partnership and share a skill set with other specialties; for example, collaborating with neurologists to return concussed athletes safely to competition, with cardiologists to distinguish an athlete's heart from a cardiomyopathy, with radiologists to interpret scans within the clinical context and with orthopaedic surgeons to best manage musculoskeletal injuries.

In the elite sport setting, you will work with and learn from various professionals, including physiotherapists, sports scientists,

osteopaths, physiologists, fitness coaches and managers, and must aim to maintain the delicate balance between performance and health! With athletes, SEM doctors must understand the impact health and illness can have on performance. They should have a strong working knowledge of anti-doping regulations not only to avoid prescribing any banned substances inadvertently, but also to advise athletes and ensure the integrity of sport.

Simplistically, the role of SEM within musculoskeletal medicine sits in between the general practitioner and the orthopaedic surgeon. This intermediary service<sup>2</sup> has been advocated to meet the needs of the significant proportion of patients who do not require operative management, but need more specialised conservative input than what is generally available within the primary care setting. Most SEM consultant physicians have a dedicated clinic within primary or secondary care mainly within the private sector but encouragingly increasingly within the NHS.

The majority of SEM doctors' practice away from professional athletes involves the diagnosis and non-operative management of musculoskeletal injuries, which may be acute or chronic and be underpinned by biomechanical or metabolic factors. Dr Brinda Christopher, an SEM Consultant in London, says "SEM doctors are trained to utilise a range of specialist diagnostic tools to consolidate their history and examination findings. Injury management often includes designing specific rehabilitation programmes and adjunctive treatments such as ultrasound guided intra-articular injections or shock-wave therapy" (personal communication with Dr Christopher in 2015).

## COMMON CONDITIONS

Typical pathologies that skilled SEM practitioners can diagnose and manage in professional athletes and the general public include:

- ▶ Tendinopathies—for example, Achilles tendon and shoulder rotator cuff;
- ▶ Joint injuries—traumatic, degenerative and inflammatory conditions;
- ▶ Ligamentous injuries such as lateral ankle sprains, anterior cruciate ligament injuries etc;

- ▶ Muscle pathologies—most commonly strains and tears, more rarely myositis ossificans or metabolic muscle disorders;
- ▶ Bone pathologies—stress fractures, complete fractures. Degenerative and inflammatory diseases that affect bone;
- ▶ Referred pain—for example, from degenerative lumbar disc disease resulting in radicular pain as well as more poorly managed somatic pain;
- ▶ Medical conditions associated with exercise, including but not limited to exercise-induced bronchoconstriction, eating disorders, relative energy deficiency syndrome and overtraining;
- ▶ Concussion;
- ▶ Management of physically inactive patients;
- ▶ Providing nutrition advice;
- ▶ Physical activity programming and monitoring for the patient with complex non-communicable chronic disease;
- ▶ Paediatric musculoskeletal issues;

## TYPICAL DAY FOR A REGISTRAR

There is no typical day in SEM and it is important to note that the work of a trainee is very different to a consultant. Unlike most other medical specialties, SEM registrars do not spend the large portion of their training shadowing consultants. This is partly due to the variation in SEM consultant posts but also because the training programme exposes trainees to specialties closely aligned with SEM such as general practice, public health, emergency medicine, military medicine, rheumatology and general medical specialties. Trainees should view these training posts as an opportunity to develop skills and competencies that they can transfer into their future SEM practice.

While NHS SEM consultant posts are slowly being created, the number of registrar training positions is reducing. Conversely, SEM posts within the private sector are growing and, in professional sport, there has always been a demand that exceeds the supply. Most SEM consultants create their own timetable with sessions in SEM clinics, amateur or professional sport, teaching (usually university-based), within physical activity programmes or research.

## TRAINING PATHWAY

In 2015, there were nine training places and two Locum Appointed for Training (LAT) positions available in SEM in the NHS, nearly half of which were based in London and none in Scotland, Northern Ireland or Wales. Dr Daniel Broman, who pursued the core medical training (CMT)

<sup>1</sup>Royal Melbourne Hospital, Melbourne, Australia;

<sup>2</sup>College of Medical and Dental Sciences, University of Birmingham, Birmingham, UK

Correspondence to Dr Liam Richard West, Royal Melbourne Hospital, Melbourne, 3050, Australia

## Education

pathway following his foundation years before entering the SEM pathway, explained that “You can only enter SEM at the third stage of specialist training (ST3) after completing two years of core medical training (CMT), the acute common care stem (ACCS) or three years of GP training” (figure 1). Thereafter, SEM registrar training takes a total of 4 years, and “to become an SEM consultant you have to complete the specialty training programme, which includes passing the Faculty of Sport and Exercise Medicine (FSEM) Diploma examinations: part 1 (consisting of two written exams and costing £560) and part 2 (a twelve station OSCE, costing £770)” (personal communication with Dr Broman in 2015).

Completion of this diploma awards the trainee DipSEM (UK) recognition. Owing to the limited number of training places, while it is not specified, an MSc or research thesis related to the SEM field is highly recommended to compete for training and consultant posts. Once the SEM trainee has completed his/her training through obtaining a certificate of completion of training, he/she is awarded recognition with Fellowship to the Faculty of SEM—FFSEM (UK).

### WORK-LIFE BALANCE

Dr Brinda Christopher says “due to the fact that SEM is supernumerary, the low number of fixed working hours per week means that there is a degree of freedom to organise further private work on evenings and weekends.” She says that from her colleagues’ experience, NHS trainees can expect to be paid around £2300 per month for working a 40 hour week (supernumerary banding), while private work or professional sports pitchside care can potentially be worth between £50 and £150 per hour (personal communication with Dr Christopher in 2015). You can also supplement your training and income by signing up for on-call shifts in A&E or related specialties.

Most SEM consultants are employed in some capacity by the private sector, with the earning potential on top of the

expected £70 000–£100 000 a year<sup>3</sup> typically provided for working in the NHS. For those solely in professional sport, some of the highest paid doctors will be found in English Premier League where the wages are in excess of these NHS positions but you can expect to be on-call most hours of the day, every day of the year!

Maintaining a good work-life balance can be difficult due to sporting events occurring in evenings or at the weekends; however, participation is largely chosen by the practitioner.

### BUILDING YOUR CV

As a fairly new specialty, the training pathway is regularly being revised, which can make it a challenge to stay ahead of the game. Owing to the low number of NHS SEM departments, particularly outside London, gaining high-quality experience as part of training can be relatively tough. Most of the valuable hands-on experience you need to gain can only be developed during evenings and weekends, as this is when most major sporting events happen. Professional sports teams can be hesitant to accept volunteers because of the pressure to win within the sporting environment. This ultimately means that they are cautious about letting outsiders observe their practices in case they lose a sporting advantage! This can make it a challenge to get experience so be persistent and enthusiastic. You will often find it easier to get experience if you can offer a useful pair of hands. Gaining qualifications and skills, such as first-aid and trauma management, is one way to achieve this. They also help to prove your commitment to the specialty of SEM—important for your future interviews! Once you are on the programme and looking after athletes individually you will need to have these qualifications anyway so why not gain them early?

Gaining a ‘mentor’ is another great way to help guide and advise you regarding career development. Finding a mentor can be done directly by speaking to someone you respect at a conference or via email,

or they could be someone you have helped with an SEM project.

### FUTURE OF THE SPECIALTY

This is a topic of much debate currently. With NHS training numbers dwindling, it is conceivable that the UK NHS SEM pathway in the current format may cease to exist in the next 5–10 years, with only the private sector remaining. The Faculty of Sports and Exercise Medicine have declared that ‘SEM needs to evolve to realise its full potential as a specialty’ and are working hard to ensure a bright future for SEM in the UK.

There is a sense that the specialty must try to move beyond a perceived focus of dealing with professional sport injuries and more towards the promotion of musculoskeletal and exercise medicine, becoming a torchbearer for preventative medicine.

### TOP FIVE TIPS FOR MEDICAL STUDENTS INTERESTED IN TRAINING IN SEM

#### 1. Shadow

Not only will this enable you to decide whether the specialty is for you, but it will demonstrate commitment to the specialty—one of the categories on the personal specification for registrar training application.

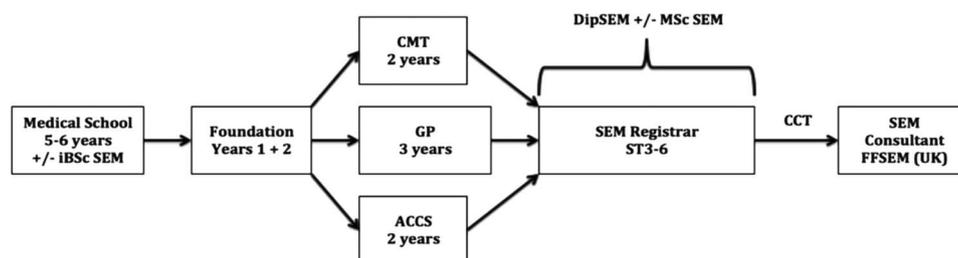
#### 2. Network, network, network

The world of SEM attracts an eclectic range of physicians and academics, from whom you can begin to learn from early on. Attend events and ask questions in the areas you are interested in. Do not expect opportunities to be handed to you, but do take advantage of unique chances to build your experience, research interests and portfolio.

#### 3. Attend SEM conferences, seminars, lectures

Go to as many conferences, evening seminars or courses as you can. It looks great on your CV, you learn a lot and can be free if you offer to help the organisers. Specific events that provide fantastic value and support to young trainees include the annual Undergraduate Sports and Exercise

**Figure 1** Flow diagram of SEM training pathway. SEM, sports and exercise medicine.



## Resources

BJSM Education: <http://bjsm.bmj.com/site/education/index.xhtml>

Faculty of Sport and Exercise Medicine: <http://www.fsem.ac.uk/>

British Association of Sport and Exercise Medicine: <http://www.basem.co.uk/>

Royal College of Physicians: <https://http://www.rcplondon.ac.uk/specialty/sport-exercise-medicine>

USEMS: <http://www.fsem.ac.uk/training-education/undergraduates-usems.aspx>

Career Development: <https://http://www.healthcareers.nhs.uk/explore-roles/medicine/sport-and-exercise-medicine/training-and-development>

Intercalated Degree: <http://www.smd.qmul.ac.uk/undergraduate/courses/intercalated/sem/index.html>

Personal Specification: <http://specialtytraining.hee.nhs.uk/files/2015/10/2016-PS-SEM-ST3-1.0.pdf>

**Twitter** Follow Liam West at @Liam\_West and Steffan Griffin at @lifestylemedic

**Acknowledgements** The authors thank Dr Brinda Christopher and Dr Daniel Broman for discussing topics included in the article.

**Competing interests** None declared.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**To cite** West LR, Griffin S. *Br J Sports Med* Published Online First: [please include Day Month Year] doi:10.1136/bjsports-2016-096631

Accepted 21 September 2016

*Br J Sports Med* 2016;0:1–3.

doi:10.1136/bjsports-2016-096631

## REFERENCES

- 1 Thornton JS, Frémont P, Khan K, *et al*. Physical activity prescription: a critical opportunity to address a modifiable risk factor for the prevention and management of chronic disease: a position statement by the Canadian Academy of Sport and Exercise Medicine. *Br J Sports Med* 2016;50:1109–14.
- 2 O'Halloran P, Tzortziou Brown V, Morgan K, *et al*. The role of the sports and exercise medicine physician in The National health service: a questionnaire-based survey. *Br J Sports Med* 2009;43:1143–8.
- 3 Health Careers NHS. *Pay for doctors*. <https://http://www.healthcareers.nhs.uk/about/careers-medicine/pay-doctors> (accessed 24 Jul 2016).

Medicine Society (USEMS) conference, the autumn and spring BASEM/FSEM conferences, Isokinetic's Football Medicine Strategies conference and the Arsenal SEMS Conference.

#### 4. Add value

Organise student selected modules in SEM that may culminate in work experience,

audits or publications. You can also look into studying an intercalated degree in the field.

#### 5. The basics

Do not forget to look up the personal specification and make sure you take part in hospital audits and keep a record of the core competencies you have achieved.



## Sport and exercise medicine in the UK: what juniors should know to get ahead

Liam Richard West and Steffan Griffin

*Br J Sports Med* published online October 8, 2016

---

Updated information and services can be found at:

<http://bjsm.bmj.com/content/early/2016/10/08/bjsports-2016-096631>

---

*These include:*

### References

This article cites 2 articles, 2 of which you can access for free at:

<http://bjsm.bmj.com/content/early/2016/10/08/bjsports-2016-096631>  
#BIBL

### Email alerting service

Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

---

### Topic Collections

Articles on similar topics can be found in the following collections

[Injury](#) (946)  
[Trauma](#) (839)  
[Health education](#) (471)  
[Obesity \(nutrition\)](#) (119)  
[Obesity \(public health\)](#) (119)

---

### Notes

---

To request permissions go to:

<http://group.bmj.com/group/rights-licensing/permissions>

To order reprints go to:

<http://journals.bmj.com/cgi/reprintform>

To subscribe to BMJ go to:

<http://group.bmj.com/subscribe/>