




# Creating a postgraduate syllabus for a team care diploma examination: a Delphi study

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## ABSTRACT

**Objectives** There is no agreed standard assessment of the minimum knowledge and skills that are required to provide healthcare to participants in individual or team sports. This study aims to develop a syllabus for the Faculty of Sport and Exercise Medicine (FSEM) Team Care Diploma examination. This will provide a recognised assessment of the minimum required skills and knowledge for healthcare professionals providing care in an individual and team sport environment.

**Methods** A modified Delphi approach was used. A syllabus was developed by a purposeful selection of members of the FSEM, all of whom have significant team care experience. This was then reviewed by the Delphi expert panel who were team care practitioners with at least 5 years of experience. A two-round Delphi approach was used to develop a consensus.

**Results** The expert panel consisted of 50 individuals, with 46 (92%) completing both rounds. Of the 447 learning objectives (LOs) proposed; 430 (96%) were accepted outright, 17 (4%) were rejected and four new LOs were introduced based on expert panel feedback. The final syllabus contained 434 LOs across 6 modules (clinical governance, safe and effective practice, interdisciplinary teamwork, specific athlete groups, specific health conditions and duties of the medical team).

**Conclusion** This standardised syllabus will be used as the basis for the new FSEM Team Care Diploma examination which will aim to provide world-leading standardised assessment of the minimum skills and knowledge required for healthcare professionals across the multidisciplinary team providing care in individual and team sport.

## INTRODUCTION

Sport and Exercise Medicine (SEM) is an evolving specialty, which incorporates aspects of musculoskeletal medicine, exercise medicine and team care. A wide range of professionals can be involved in the healthcare multidisciplinary team (MDT) in the field of team care such as doctors, physiotherapists, sports therapists and rehabilitators.<sup>1</sup> There is no current internationally recognised

### WHAT IS ALREADY KNOWN ON THIS TOPIC

- ⇒ There is currently no existing standardised syllabus within the field of Sport and Exercise Medicine for healthcare professionals who practice team care.
- ⇒ A sports medicine team can include healthcare professionals across a wide range of disciplines and professional backgrounds, with variation in the levels of professional training and qualifications.

### WHAT THIS STUDY ADDS

- ⇒ This Delphi study has developed a consensus syllabus using feedback from experts in the field of team care.

### HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

- ⇒ The Faculty of Sport and Exercise Medicine Team Care Diploma examination will use this syllabus to ensure that team care practitioners meet world-leading assessment standards.

assessment or qualification to demonstrate a minimum level of skills and knowledge for healthcare professionals working in sport. This creates uncertainty and variability in recruitment of appropriately qualified and experienced staff for the MDT.

While athletes being looked after in a sport setting share many similarities with patients being seen in other healthcare settings, there are also numerous differences in terms of epidemiology of injury, illness and external factors.<sup>2</sup> The demands on a team care practitioner differ compared with a traditional healthcare setting as pressure on the athlete in relation to competition timelines and retaining their performance are at the forefront of care delivery, which can lead to greater ethical considerations.<sup>3</sup> There are also specific considerations such as ensuring clinical governance, event planning, safeguarding, the role of health on performance



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and managing medications with the added context of antidoping guidance.<sup>4</sup>

Standardisation of quality of care is vital to ensure safe care for athletes from all members of the MDT. Standardisation within the context of this study refers to the baseline knowledge and skills all team care practitioners are expected to have. To our knowledge, there is currently no research that explores standardisation in team care. Given the wide range of disciplines working in the field of SEM, it becomes increasingly difficult to establish a clear framework of minimum standards. There is often a wide range of experience and skills among team care practitioners depending on their area of expertise.

Knowledge and skills which are imperative when working in team care are often gained through experience. As with all aspects of healthcare, this often results in cognitive bias.<sup>5,6</sup> Ensuring all practitioners working in team care achieve an expected standard becomes of greater importance as there is less scope for shared reflection of good practice when compared with a traditional healthcare setting. In addition, there can be direct challenges within sport to the process of reflection and sharing audit and quality improvement work across organisations and sports. National standardisation is, therefore, important to ensure that practitioners looking after athletes are appropriately trained in the practice of clinical governance in this setting.

Regulation and clinical governance exist for the provision of safe and effective care and can help set a clear outline of what is expected of a team care practitioner within their scope of practice.<sup>7</sup> Regulatory bodies produce literature that outlines minimum standards with a strong focus on patient safety, confidentiality and not operating outside of one's clinical expertise. For example, doctors in the UK who provide team care are bound by the principles of clinical governance as set out by the General Medical Council as this is their regulatory body.<sup>8</sup> Similarly, physiotherapists, sports therapists and rehabilitators have their own professional bodies. Given these professions are all regulated by different bodies, there will be differences in the expectations placed on them depending on their role.

This Delphi aimed to gain a consensus from members of the SEM MDT who have actively been engaged in team care on a number of learning objectives (LOs) for team care.<sup>9–12</sup> With the ultimate aim of developing a team care syllabus on behalf of the Faculty of Sports and Exercise Medicine (FSEM) UK which will provide an educational framework for the upcoming diploma examination. The consensus syllabus allows for a standardisation in the provision of care and will encompass the roles of all members of the SEM MDT who provide team care, maintaining an emphasis on all aspects of clinical governance in relation to team care.

## METHODOLOGY

### Study design

A modified Delphi approach was used to seek consensus from experts in the field of team care. The Delphi methodology involves using an iterative approach allowing anonymous expert contribution to accept or reject key ideas across multiple rounds. Feedback is provided to the expert panel before the start of a new round. It is a commonly used methodology in the field of syllabus development.<sup>13,14</sup> This study was conducted as a modified Delphi as an initial syllabus was developed prior to commencing feedback in June 2023.<sup>15</sup>

### Equality, diversity and inclusion considerations

The Delphi research and authorship team featured early and later career researchers across the scope of the MDT with ethnic and other minority groups represented across the authorship team. The syllabus development team was a team of clinicians who were well established in the field of SEM all being members of the FSEM, however, there was a clear gender imbalance in this team with only 26% (6/23) identifying as female. The expert panel from whom consensus was sought were all based in the UK, meaning the consensus may not be as applicable to lower socioeconomic countries and countries with cultural differences.

### Patient and public considerations

Due to the nature of the study, no patient or public involvement was deemed necessary or appropriate.

### Developing the syllabus

26 SEM consultants and registrars who were current Members or Fellows of the FSEM and had at least 5 years experience in providing healthcare in a team sport environment were recruited internally to write LOs for the syllabus via an open expression of interest. JK acted as the lead for the development of the syllabus on behalf of the FSEM with JH as the designated faculty lead for the sport committee. It was important the syllabus group represented a diverse range of individuals considering factors such as: gender, ethnicity and sports-specific representation such as para-sport and paediatric sports medicine.

The 26 individuals were split into subgroups according to their expertise to develop LOs for the syllabus focused on both knowledge and skills that would be expected as a minimum standard for healthcare practitioners providing healthcare to athletes in a high-performance sport setting while always remaining within their own scope of practice.

Modules were written primarily through discussion between members of each subgroup using insight and opinion from their own experiences and practice. Following this, time was given to the wider group to review each module and make suggestions. JK developed the LOs submitted by the subgroups to form the final syllabus on behalf of the FSEM.

**Table 1** Expert panel eligibility criteria

Role	Eligibility criteria
Doctors	<ul style="list-style-type: none"> <li>▶ Medical degree</li> <li>▶ Full GMC registration</li> <li>▶ Member or fellow of the FSEM</li> <li>▶ Worked a minimum of 5 years independently in a high-performance team sport environment, focused on athlete and team healthcare</li> </ul>
Physiotherapists	<ul style="list-style-type: none"> <li>▶ Physiotherapy degree</li> <li>▶ Membership of the Chartered Society of Physiotherapists and registered with the Health and Care Professionals Council</li> <li>▶ Membership of the Association of Chartered Physiotherapists in Sports and Exercise Medicine or Musculoskeletal Association of Chartered Physiotherapists</li> <li>▶ A higher degree (masters (MSc) or equivalent) in any of the following: sports physiotherapy/sports and exercise medicine/sports rehabilitation</li> <li>▶ Worked a minimum of 5 years independently in a high-performance team sport environment, focused on athlete and team healthcare</li> </ul>
Sports therapists and rehabilitators	<ul style="list-style-type: none"> <li>▶ Sports rehabilitation/therapy degree</li> <li>▶ Membership of the British Association of Sports Rehabilitators or the Society of Sports Therapists</li> <li>▶ A higher degree (MSc or equivalent) in any of the following: sports physiotherapy/sports and exercise medicine/sports rehabilitation</li> <li>▶ Worked a minimum of 5 years independently in a high-performance team sport environment, focused on athlete and team healthcare</li> </ul>

FSEM, Faculty of Sports and Exercise Medicine; GMC, General Medical Council.

### Establishing the research group

AI, AM, DV, HR, JH, JK, JP, RC and ZZ were the members of the Delphi analysis group. The group was formed of a variety of professionals including early career and established doctors and physiotherapists in the field of SEM and team care. The group reviewed each round of the Delphi including comments and modifications and determined if any changes or additions were appropriate. CN, KRM, ME, NJ, SA and WvK contributed significantly to the reviewing and editing of the manuscript.

### Establishing the expert panel

Delphi studies rely on experts in a field to deliver consensus on a topic. The term expert is widely used and in the context of this Delphi it refers to individuals working in the field of SEM with relevant knowledge and experience of team care.<sup>15 16</sup> Currently, the large majority of professionals working in team sport are doctors, physiotherapists, sports therapists and sports rehabilitators as such this syllabus deemed these professional groups to be eligible as experts and as such eventually to undertake the examination. Clear eligibility criteria were established by the research team to ensure expert consensus was achieved (outlined in table 1).

### Recruitment to the Delphi panel

Invitations to participate were sent via various channels including advertisements to members of British Association of Sport and Exercise Medicine, the FSEM, Health and Care Professionals Council, British Association of

Sports Rehabilitators, Society of Sports Therapists and online via social media platforms in June 2023. An initial recruitment survey was sent via the secure Qualtrics platform to establish eligibility for all those interested in the study prior to the survey link being shared. This link also contained the participant information sheet outlining the purpose of the Delphi and the role of the panel. Participants were asked to check a tick box prior to the start of the survey that stated they consented to their details being shared with the Delphi group, it was made clear they could withdraw at any time. All responses were stored on Qualtrics servers and were password protected. Data were analysed using password-protected Microsoft Excel sheets. All members of the expert group were anonymised prior to their responses and feedback being reviewed.

### Round 1

A single survey containing all LOs divided into modules was sent to all eligible experts following recruitment via the Qualtrics platform in June 2023. The expert panel was asked to accept, reject or modify each LO. There was a 2-week window to respond to the survey, reminders were sent via the Qualtrics platform and mobile SMS. Currently, there is no ideal consensus level to be used within Delphi methodology, however, the higher the level is set, the stronger the consensus is deemed.<sup>15-17</sup> Previous studies have shown that a consensus level of 75% or more is an appropriate level to deem consensus

**Table 2** Initial syllabus is broken down into modules and LO distribution

Modules	Number of LOs	
	Knowledge	Skills
Clinical governance	20	25
Safe and effective practice	38	47
Interdisciplinary teamwork	16	23
Specific athlete groups	59	54
Specific health conditions	60	37
Duties of the medical team	35	33
Total	228	219

LOs, learning objectives.

reached, 80% was selected as the consensus level for this Delphi.<sup>18 19</sup>

### Round 2

Round 2 was the final review of the proposed syllabus. Experts were sent a new survey in July 2023 and asked to only accept or reject LOs that had been either amended or added following round 1. The survey was shared only with those experts who had completed the first round. Again, a 2-week window was used to allow for responses with reminders sent via the Qualtrics platform and mobile SMS. LOs that had reached consensus following round 1 and did not require further assessment were included within the survey for reference but were not available to vote on. Experts were provided with an opportunity to comment after each module on anything they deemed may have been missing or needed amending and again at the end of the survey experts were invited to comment on the syllabus. Following the survey, LOs were reviewed, and acceptance percentages were again calculated. Again an 80% threshold for acceptance was used.

## RESULTS

### The initial proposed syllabus

447 LOs were included in the initial syllabus created by the FSEM. These were split across six modules. Each module was split into knowledge and skills LOs across submodules, allowing appreciation of where theoretical knowledge was required versus practical skills (table 2).

### The expert panel

190 individuals expressed an interest in being on the expert panel. Of these, 37% (71/190) met the eligibility criteria. This group was composed of 53 doctors, 7 sports therapists/rehabilitators and 11 physiotherapists. Further demographic information has not been included to avoid participants being identified.

### Round 1

Of the 71 eligible participants, 50 completed the first round of the Delphi. This included 40 doctors, 5 sports

therapists/rehabilitators and 5 physiotherapists. 76% (38/50) of respondents identified as male and 24% as female. 93% (417/447) of LOs achieved the 80% consensus threshold. The 30 LOs that did not reach consensus were discussed by the research team. Any LOs below 60% consensus were removed from the syllabus, those between 60% and 80% consensus were discussed, and relevant modifications were made based on feedback from the expert panel. 14 LOs were modified, 16 LOs were rejected and 4 new LOs were introduced based on expert panel feedback.

### Round 2

Of the 50 individuals that completed round 1, 92% (46/50) completed round 2, including 38 doctors, 5 physiotherapists and 3 sports therapists/rehabilitators. 76% (35/46) of respondents identified as male and 24% as female. The mean time working in team care among the expert panel was 16 years (SD 7.83).

18 LOs were voted on in round 2. 94% (17/18) reached consensus among the expert panel including all LOs that were added at the conclusion of round 1. The only LO that fell below the 80% consensus was 'Q251 Knowledge: should be able to describe: The medical and performance aspects of gender transitioning.' Feedback for this LO was that other LOs covered care of transgender athletes adequately. Therefore, this LO was removed.

Given a consensus had been reached on all but one objective in round 2, and the justification for rejection was reasonable, the Delphi was stopped at this point. Consensus was reached on 434 LOs, which form the final syllabus (available in online supplemental information).

## DISCUSSION

### Summary of findings

By using a modified Delphi methodology, a consensus syllabus consisting of 434 LOs across 6 modules was developed based on the opinions and experiences of 46 experts in the field of team care across multiple disciplines. It is hoped this syllabus will benefit practitioners who are looking for a foundation for their future practice.

### The importance of standardising team care

As SEM becomes more widely recognised, it is important to maintain the value of the professionalism of those working in SEM. This will ensure athletes receive the care they deserve, are appropriately managed within their teams and when needed are referred appropriately for specialist care.

### Clinical implications

Benchmarking has been found to be a valuable tool to improve healthcare quality and outcomes, and the FSEM team care examination provides a clear way for practitioners to benchmark themselves.<sup>20</sup> This will ensure the required standards to practice safely and effectively will be met. It will also allow practitioners the opportunity to



reflect on their practice and develop areas they identify as requiring further development.

### Study limitations

Each member of the MDT will have different competencies and scope of practice. As such, adopting a one-size-fits-all approach to standardisation may be practically difficult. The syllabus itself was written primarily by doctors in the field of SEM and the Delphi itself garnered most of its responses from doctors. The research team attempted to recruit more individuals from other areas of the MDT, however, given the high number of doctors involved, the expert panel was limited in the overall pool of practitioners. Therefore, some areas of the syllabus may be less relevant to physiotherapists, sports therapists and sports rehabilitators given the differences in their remit. The study and the syllabus, therefore, presume that individuals are aware of and will continue to work within, their own scope of practice.

Following the theme of representation, of those that responded to round 2, only 24% identified as female (11/46) with the remainder identifying as male. This figure is a reality of the current landscape of sports medicine as a specialty, with previously published work showing women account for less than 20% of team doctors in elite sport environments.<sup>21 22</sup> Therefore, it may be assumed the response rates received in this study are a relatively accurate representation of the gender split currently present within SEM. This is something that should be addressed at a wider level to ensure equality and diversity are at the heart of the specialty moving forwards.

The number of LOs included within the syllabus was a limitation to the methodology. It led to the Delphi survey being very time-consuming, thereby potentially being influenced by responder fatigue and cognitive biases.<sup>20</sup> The first round took up to 2 hours to complete, the software used to distribute the survey had a save feature meaning the survey could be paused and resumed at any time to account for its length. This aimed to reduce fatigue, however, this feature also meant participants were unable to go back to previous LOs and change their responses as the survey progressed.

### CONCLUSION

This Delphi study has culminated in the establishment of a consensus syllabus on behalf of the FSEM to be used as the basis for the upcoming team care diploma examination. This will allow for standardisation in a role that can be occupied by various members of the SEM MDT, with varying levels of skills and experience. The foundations of the syllabus itself can be used by institutions internationally and SEM colleagues around the world will be able to sit the FSEM Diploma examination to allow them to show they meet the necessary standards in providing safe and effective team care. The syllabus itself will continue to be updated as the landscape of team care continues to change.

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### REFERENCES

- 1 Tee JC, Rongen F. 'How' a multidisciplinary team worked effectively to reduce injury in a professional sport environment. *SportRxiv* 2020.
- 2 Giles S, Fletcher D, Arnold R, *et al*. Measuring well-being in sport performers: where are we now and how do we progress?. *Sports Med* 2020;50:1255–70.
- 3 Testoni D, Hornik CP, Smith PB, *et al*. Sports medicine and ethics. *Am J Bioeth* 2013;13:4–12.



- 4 Tandon S, Bowers LD, Fedoruk MN. Treating the elite athlete: anti-doping information for the health professional. *Mo Med* 2015;112:122–8.
- 5 Whelehan DF, Conlon KC, Ridgway PF. Medicine and heuristics: cognitive biases and medical decision-making. *Ir J Med Sci* 2020;189:1477–84.
- 6 Gojanovic B, Fourchet F, Gremeaux V. Cognitive biases cloud our clinical decisions and patient expectations: a narrative review to help bridge the gap between evidence-based and personalized medicine. *Ann Phys Rehabil Med* 2022;65:101551.
- 7 Macfarlane AJR. 'What is clinical governance?'. *BJA Educ* 2019;19:174–5.
- 8 Good medical practice. General Medical Council (GMC). Available: [https://www.gmc-uk.org/-/media/documents/gmp-2024-final---english\\_pdf-102607294.pdf](https://www.gmc-uk.org/-/media/documents/gmp-2024-final---english_pdf-102607294.pdf) [Accessed 27 Feb 2024].
- 9 British Association of sport Rehabilitators. Available: <https://www.basrat.org/> [Accessed 27 Feb 2024].
- 10 Health and care professions council. Available: <https://www.hcpc-uk.org/> [Accessed 27 Feb 2024].
- 11 The society of sports therapists. Available: <https://thesst.org/> [Accessed 27 Feb 2024].
- 12 Chartered society of physiotherapy. Available: <https://www.csp.org.uk/> [Accessed 27 Feb 2024].
- 13 Vishnubala D, Iqbal A, Marino K, *et al.* Creating a sport and exercise medicine undergraduate syllabus: a Delphi study. *BMC Med Educ* 2023;23:179.
- 14 Matthan J, Cobb M, McHanwell S, *et al.* The anatomical society's core anatomy syllabus for dental undergraduates. *J Anat* 2020;236:737–51.
- 15 Dalkey N, Helmer O. An experimental application of the Delphi method to the use of experts. *Manage Sci* 1963;9:458–67.
- 16 Baker J, Lovell K, Harris N. How expert are the experts? an exploration of the concept of 'expert' within Delphi panel techniques. *Nurse Res* 2006;14:59–70.
- 17 Ab Latif R, Mohamed R, Dahlan A, *et al.* Using Delphi technique: making sense of consensus in concept mapping structure and multiple-choice questions (MCQ). *EIMJ* 2016;8:89–98.
- 18 Keeney S, Hasson F, McKenna H. *The Delphi Technique in Nursing and Health Research*. West Sussex, United Kingdom: John Wiley & Sons, 2010. Available: <https://onlinelibrary.wiley.com/doi/book/10.1002/9781444392029>
- 19 Gargon E, Crew R, Burnside G, *et al.* Higher number of items associated with significantly lower response rates in COS Delphi surveys. *J Clin Epidemiol* 2019;108:110–20.
- 20 Willmington C, Belardi P, Murante AM, *et al.* The contribution of benchmarking to quality improvement in healthcare. A systematic literature review. *BMC Health Serv Res* 2022;22:139.
- 21 Anderson N, Robinson DG, Verhagen E, *et al.* Under-representation of women is alive and well in sport and exercise medicine: what it looks like and what we can do about it. *BMJ Open Sport Exerc Med* 2023;9:e001606.
- 22 O'Reilly OC, Day MA, Cates WT, *et al.* Female team physician representation in professional and collegiate athletics. *Am J Sports Med* 2020;48:739–43.

# Faculty of Sport & Exercise Medicine

## Team Care Diploma Syllabus

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## Module 1: Clinical Governance

Subject Area	Knowledge Should be able to describe:	Skills Should be able to:
Medicines Management	<p>Statutory requirements for organisations providing healthcare in relation to procurement, storage, handling, record-keeping, usage and disposal of medicines, including travel to and from training and competitions.</p> <p>Specific requirements for controlled drugs (CDs) in relation to legislation on the safe use and management of CDs, safe custody regulations and possession and supply of these medicines.</p> <p>Potential factors that may challenge a medicine's management policy within elite sport such as international travel.</p> <p>Anti-doping rulings related to all matters of medicines management.</p>	<p>Take a medication history specifically for an athlete in relation to their sport.</p> <p>Produce accurate, written prescribing reports and electronic medical records.</p> <p>Perform an audit on medicines management.</p> <p>Check the prohibited status of specific medicines for an individual based on the current World Anti-Doping Agency (WADA) Prohibited List.</p> <p>Design and implement a medicine's management policy for a team and/or sport.</p> <p>Work with pharmacists and other healthcare professionals to facilitate best practice in medicine's management including the use of Patient Specific Directions (PSDs).</p>
Appraisal and Continued Professional Development (CPD)	<p>Registration and requirements pertaining to appraisal and revalidation from their relevant regulatory body.</p> <p>The professional values and behaviours expected of</p>	<p>Keep professional knowledge up-to-date and take part in activities that maintain and develop competency and performance.</p> <p>Take part in and complete work-place based</p>



	<p>them from their relevant regulatory body.</p> <p>Mandatory training requirements for team care practitioners in elite sport including:</p> <ul style="list-style-type: none"> <li>• Pre-hospital</li> <li>• Pitch-side or Emergency Care</li> <li>• Anti-doping</li> <li>• Safeguarding</li> <li>• Equality, Diversity, and Inclusion</li> <li>• Infection Prevention and Control</li> </ul> <p>Continued professional development and on-going education requirements for healthcare professionals in sport.</p> <p>The importance of appropriate:</p> <ul style="list-style-type: none"> <li>• Professional indemnity</li> <li>• Disclosure and Barring service checks</li> </ul>	<p>assessments, structured reports, multi-source feedback and reflective practice.</p> <p>Complete an annual appraisal and understand the process involved in this. Be familiar with guidelines and developments that affect your work in sport.</p> <p>Engage athletes and coaches on important medical and health related topics.</p> <p>Prepare and deliver teaching and training to other health-care professionals and athletes.</p> <p>Ensure learning from patient injury and illness data.</p> <p>Recognise accepted best practice guidance around social media behaviour and the potential pitfalls that exist.</p>
Clinical effectiveness	<p>Principles of evidence-based medicine pertaining to medical provision in elite sport.</p> <p>The role of clinical guidelines in supporting athlete care.</p> <p>Research methodology (e.g., study design, data analysis) which could be used to enhance clinical care.</p>	<p>Critically appraise literature relevant to medical provision in elite sport.</p> <p>Adapt clinical practice and protocols based on new evidence and experience.</p> <p>Demonstrate an awareness and understanding of key clinical guidelines in elite sport, including the medicolegal framework within which they exist.</p>

		Identify ethical concerns and barriers related to conducting clinical research in elite sport settings.
Risk management	<p>Relevant regulatory body standards with respect to medical records and storage of this information, including data protection.</p> <p>Systems and protocols which can be used to reduce risks in an elite sport setting (e.g., infection control measures, emergency action plans, safeguarding procedures).</p> <p>Significant event reporting procedures (including near miss events).</p> <p>Strategies (e.g., clinical audit, Quality Improvement Project (QIP)) used to evaluate service provision and subsequently make informed recommendations.</p>	<p>Maintain contemporaneous medical records in keeping with professional standards (e.g., General Medical Council (GMC), The Health and Care Professional Council (HCPC)).</p> <p>Design an Emergency Action Plan which is fit for purpose for the setting within which you work.</p> <p>Develop and implement evidence-based protocols which can be used to reduce risks in an elite sport setting.</p> <p>Promote a positive culture of transparency and learning within the elite sport setting through implementing suitable governance procedures (e.g., significant event reporting, managing complaints, reflective practice, debriefs etc).</p>
Clinical Audit	<p>Statutory and mandatory requirements for clinical audit for sporting environments.</p> <p>Why clinical audit is vital. A method of quality assurance to improve processes and outcomes, identify and minimise risks, waste and</p>	<p>Document a strategy for clinical audit for an organisation.</p> <p>Document complete audit cycle including how the audit improved outcomes, minimised risks or provided assurance of clinical standards.</p>

	<p>insufficiencies and provide assurance of compliance with clinical standards.</p> <p>The stages of the audit cycle. Preparation and planning, measure performance, implement change, sustain improvement.</p>	
Moral Dilemmas and Ethics	<p>The code of conduct for regulated practitioners.</p> <p>The current laws and best practice guidance relating to consent and confidentiality.</p>	<p>Apply the principles of good practice in relation to various sports medicine scenarios in areas of consent, confidentiality, anti-doping, use of innovative versus evidence-based practice, athlete/practitioner relationship, return to play decisions, performance vs. health balance.</p>

## Module 2: Safe and effective practice

Subject Area	Knowledge Should be able to describe:	Skills Should be able to:
Data preparation, analysis, storage and presentation	<p>The different methods of capturing data</p> <p>The concept of data preparation.</p> <p>Key considerations when choosing appropriate questionnaire and data analysis methods for sports and performance related problems.</p> <p>The key considerations to interpret quantitative results.</p> <p>What data protection legislation (UK General Data Protection Regulation (GDPR) and the Data Protection Act 2018) exists and the core themes and principles within it, including common terminology.</p> <p>A team care practitioners' responsibilities for protecting the data they work with.</p> <p>The role of a Data Protection Officer.</p>	<p>Perform work duties in a way that honours good data protection practices in all areas that involve personal data.</p> <p>Apply the 7 basic GDPR principles to data processing.</p> <p>Understand what constitutes the following and the processes that occur following these:</p> <ul style="list-style-type: none"> <li>• Data breaches</li> <li>• Subject access requests</li> </ul> <p>Identify the correct places and people to get help with assessing, mitigating, and reporting data risks and incidents.</p>

<p>Regulation of healthcare (An example of a relevant organisation is the Care Quality Commission in England, but these will differ from country to country)</p>	<p>The purpose of organisations that regulate health and social care.</p> <p>The role of independent regulatory organisations in the assessment of the provision of healthcare in elite sports environments.</p> <p>The type(s) of publications and assessments produced by an independent regulator.</p> <p>The role of equality and human rights in the work of an independent regulator.</p>	<p>Identify if a facility is required to register with an independent regulatory organisation in order to provide healthcare services to athletes.</p> <p>Understand how to report concerns to an independent regulator about healthcare provision.</p> <p>Apply equality and human rights when providing healthcare and ensure these are protected in the elite sport and exercise medicine environment.</p>
<p>Infection Control</p>	<p>National and local guidelines, policies and procedures relevant to infection control and prevention.</p> <p>Different factors that increase the likelihood of individuals acquiring an infection, including:</p> <ul style="list-style-type: none"> <li>• Age</li> <li>• Reduced immunity</li> <li>• Medical Conditions</li> <li>• Inappropriate use of antibiotic</li> <li>• Poor standards of infection prevention and control</li> </ul> <p>Different modes of infection transmission, including:</p> <ul style="list-style-type: none"> <li>• Direct human-to-human contact</li> </ul>	<p>Follow appropriate national and local guidelines, policies and procedures relevant to infection control and prevention.</p> <p>Assess the risk to individuals in relation to their likelihood of acquiring infections and potential complications and severity of this, based on their individual factors.</p> <p>Follow local guidance in relation to responsible and appropriate prescribing of antibiotics.</p> <p>Use Personal Protective Equipment appropriately according to their working environment and situation.</p> <p>Carry out appropriate hand hygiene, including hand</p>



	<ul style="list-style-type: none"> <li>• Indirect contact, such as air-borne, vector-borne, and through touching contaminated equipment</li> </ul> <p>Methods to enable themselves to contribute to infection control and prevention.</p> <p>Their responsibilities towards infection prevention and control, including:</p> <ul style="list-style-type: none"> <li>• Use of Personal Protective Equipment</li> <li>• Hand Hygiene</li> <li>• Dealing with spillages of blood and body fluids</li> <li>• Dealing with sharps injuries and other occupational exposures/risks</li> <li>• Management of equipment being used and the environment.</li> </ul> <p>Situations where their own health and fitness could be an infection risk to others in the environment.</p>	<p>washing with soap and water and use of hand sanitisers.</p> <p>Appropriately manage blood and bodily fluid spillages, following local policies.</p> <p>Appropriately use and dispose of sharps following local policies.</p> <p>Appropriately manage sharps injuries and other occupational exposures/risks, following local policies.</p> <p>Manage used linen and clothing appropriately following local policies to prevent spread of infection.</p> <p>Dispose of clinical waste in a safe way, including using the appropriate colour-coded waste system in their working environment.</p> <p>Follow appropriate cleaning and decontamination procedures relevant to the working environment and equipment being used.</p> <p>Recognise when own health and fitness may pose an infection risk and take appropriate steps to prevent the spread of infection to others.</p>
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<p>Adult and Child safeguarding</p>	<p>Regulated Activity.</p> <p>Abuse and its various forms (Neglect, Physical, Emotional, Sexual).</p> <p>The possibility for each type of abuse within a sporting context.</p> <p>The signs and indicators of abuse and neglect within a sporting environment.</p> <p>The potential barriers to identification and reporting of abuse.</p> <p>The Mental Capacity Act (MCA) and the framework it provides for making decisions about the care and treatment of people.</p> <p>The five key principles of the MCA.</p> <p>Children and those adult groups who may be at increased risk of harm.</p> <p>The signs of bullying, and how to address this within an organisation.</p> <p>The rights of children, and relevant legislation (The Children Acts 1989 and 2004).</p> <p>The role of child protection units within the UK (e.g. Child Protection in Sport Unit (CPSU)).</p>	<p>Be able to complete all the components of an incident report form (e.g. CPSU template).</p> <p>Identify who is responsible for adult and child safeguarding within a sporting organisation.</p> <p>Perform a risk assessment for participation in local and overseas sport activity.</p> <p>Identify the 5 events levels:</p> <ol style="list-style-type: none"> <li>1. Organised but less formal events</li> <li>2. Single-school or single club events</li> <li>3. Local, multi-club/inter-school sports events</li> <li>4. Regional or national events</li> <li>5. International events</li> </ol> <p>Assist in producing a safeguarding plan for each level including reporting procedures.</p> <p>Identify key steps to safeguard and protect children and young people coming from minority ethnic groups.</p> <p>Detail the appropriate use of chaperones and produce a policy related to this.</p> <p>Recognise, consider and address the potential safeguarding concerns</p>
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	<p>The principles of consent in children and young people.</p> <p>The factors that may increase risk of harm and abuse towards elite level adolescent athletes and how to mitigate these.</p> <p>Potential risk factors for harm or abuse within an adult population.</p> <p>The requirement for guidelines for reporting concerns when an adult is, or may be at risk of being harmed, or is in need of protection.</p> <p>The concept of capacity, and how to assess it.</p> <p>Self-neglect, and challenges faced in responding to suspicions of self-neglect.</p> <p>Your role in relation to domestic violence and abuse and how to respond and refer in order to support.</p> <p>The importance of identifying recurrent themes in reviews and sharing the lessons learned.</p> <p>The appropriate action to take in order to escalate a safeguarding concern relating to an at-risk adult or child.</p>	<p>associated with e-technology:</p> <ul style="list-style-type: none"> <li>• Cyberbullying</li> <li>• Sexting</li> </ul> <p>Recognise the misuse of texting and social media to identify, contact or groom children and young people for abuse.</p> <p>Write a parental consent form to include:</p> <ul style="list-style-type: none"> <li>• acceptance of the code of conduct</li> <li>• emergency contact numbers (at least two)</li> <li>• any specific medical information or information relating to an impairment or disability.</li> <li>• information about any other factors that may affect the young person (e.g. family bereavement).</li> </ul> <p>Contribute to the medical aspects of a code of conduct for a team sport trip.</p> <p>Help foster a culture where adults are consulted on every decision that affects them.</p> <p>Respond, record and report suspicions or allegations of abuse / inappropriate behaviour correctly.</p>
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	<p>When it might be necessary to share information with other agencies and how to do this appropriately.</p> <p>What safeguarding supervision is and the critical role it plays in ensuring the highest standard of care for children, young people and at-risk adults.</p>	<p>Review and influence policies that will reduce harm resulting from abuse, exploitation or neglect.</p> <p>Influence a sporting organisation to promote a zero tolerance to risk of harm or neglect.</p> <p>Encourage a sporting team or organisation to work collaboratively across sectors to promote safety and prevent harm.</p> <p>Contribute and carry out risk assessments, as appropriate to your role as a Sport and Exercise Medicine (SEM) clinician.</p> <p>Establish when an adult may not have capacity to consent to treatment.</p> <p>Understand the role and responsibilities of an SEM practitioner in case reviews and how they may contribute to learning and application of recommendations to improve practice.</p>
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### Module 3: Interdisciplinary teamwork

Subject Area	Knowledge Should be able to:	Skills Should be able to:
Effective multi-disciplinary team working	<p>The components of effective collaboration and team working.</p> <p>The roles and responsibilities of members of the multi-disciplinary healthcare team.</p> <p>Factors which may adversely affect a healthcare professional and/or a team's performance, as well as the methods which may be employed to rectify these factors.</p> <p>Personal and team resilience and the impact that resilience has on team effectiveness</p>	<p>Communicate with colleagues accurately, clearly, promptly and comprehensively across a variety of appropriate communication formats.</p> <p>Utilise the expertise and strengths of the whole multi-disciplinary team to optimise patient and population care across a variety of care settings.</p> <p>Effectively coordinate care across multiple agencies and providers to ensure timely and optimal clinical care.</p> <p>Ensure that appropriate supervision is maintained when delegating responsibility to another member of the team.</p> <p>Communicate effectively with coaching staff, administrative bodies and support organisations.</p> <p>Demonstrate flexible and adaptable leadership styles to optimise team cohesion and productivity.</p>



		<p>Support an open and transparent approach to incident and complaint investigation, management and resolution.</p> <p>Synthesise complex clinical and psychosocial information contributing to patient-centred clinical decision making in a variety of care settings.</p> <p>Demonstrate attitudes and behaviours that assist dissemination of good practice.</p> <p>Employ behavioural management skills with colleagues to prevent and resolve conflict and enhance collaboration.</p>
Leadership, management, supervision and understanding self	<p>The different leadership styles and evaluate their strengths and weaknesses.</p> <p>The importance of effective communication and interpersonal skills in a team environment.</p> <p>The relevance of supervision, learning and development.</p> <p>Common organisational structures in which healthcare professionals may practice team/performance medicine.</p>	<p>Apply ethical principles and behave in a manner in line with their relevant regulatory body in all roles being undertaken including leadership and management roles.</p> <p>Promote diversity, equality and inclusion in a range of roles in high performance team.</p> <p>Recognise deteriorating performances of colleagues (e.g. stress/fatigue other) and develop strategies to address this</p>

	<p>Key principles of management and its application in team care/high performance environments.</p> <p>The potential impact of personal attitudes, values, beliefs, perceptions and biases (which may be unconscious) on individuals and groups.</p>	<p>Utilise effective negotiation and conflict resolution skills to manage conflict scenarios in a high-performance environment.</p> <p>Support, educate, influence and develop members of the wider multi-professional team.</p> <p>Develop strategies to mitigate the potential impact of personal attitudes, values, beliefs, perceptions and biases (which may be unconscious) on individuals and groups.</p>
Continuing Professional Development (CPD), Research and Education	<p>Basic concepts of quantitative and qualitative research methodology, including basic statistics, used commonly in scientific medical practice.</p> <p>The advantages and disadvantages of different research methodologies (e.g. systematic reviews, experimental, quasi-experimental and observational).</p> <p>The hierarchy of evidence.</p> <p>Methods to assess the certainty of evidence.</p> <p>The importance of CPD and elements of appraisal.</p> <p>Different types of learning styles for educating others.</p>	<p>Appraise evidence to address a clinical question.</p> <p>Critically review scientific literature and apply evidence-based principles to the practice of Sport and Exercise Medicine (SEM).</p> <p>Evaluate limitations of research.</p> <p>Undertake the process of appraisal and identify the benefits of yearly review.</p> <p>Discuss the importance of continuing professional development and the different types of CPD.</p> <p>Discuss how different tools may be used to ensure all learning styles are met</p>

		when educating individuals and groups.
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## Module 4: Specific athlete groups

Subject Area	Knowledge Should be able to describe:	Skills Should be able to:
Female Athletes	<p>Sex based differences in epidemiology of sports injury and medical illness.</p> <p>Normal hormonal fluctuations in the menstrual cycle.</p> <p>Potential impact of normal hormonal variations across the menstrual cycle on athletic performance, training adaptations, nutritional considerations, injury and illness risk.</p> <p>Menstrual symptoms that may affect the ability to train and potential impact on quality of life, including heavy menstrual bleeding, dysmenorrhoea, oligomenorrhoea, amenorrhoea, pre-menstrual syndrome.</p> <p>Medical conditions related to the menstrual cycle such as PCOS, endometriosis and intermenstrual bleeding.</p> <p>Relative Energy Deficiency in Sport (RED-S) including epidemiology, hormonal, bone health, medical, psychological and nutrition aspects.</p>	<p>Design and implement appropriate injury and illness prevention programmes specific to female athletes.</p> <p>Advise and educate female athletes on the normal menstrual cycle, including advice related to optimising training adaptation, performance and maximising health.</p> <p>Assess and manage a female athlete with medical problems related to the menstrual cycle.</p> <p>Display competence in the initial investigation of a medical condition related to the menstrual cycle and awareness regarding how and when to refer to appropriate specialists.</p> <p>Assess, diagnose and manage a female athlete with RED-S.</p> <p>Refer or signpost to a healthcare professional with a special interest in mental health for a suspected or identified eating disorder or</p>

	<p>Medical care related to pregnancy, infertility, miscarriage and postnatal return to sport and exercise.</p> <p>Hormonal and non-hormonal contraception options for an athlete.</p> <p>Assessment and management of female athlete specific pelvic health issues including incontinence and lower urinary tract symptoms.</p>	<p>other psychopathology in addition to RED-S.</p> <p>Provide support, care and advice on sport and exercise to female athletes who become pregnant.</p> <p>Provide support, care and advice on return to sport and exercise for female athletes in the postnatal period.</p> <p>Support and appropriately refer athletes with miscarriage and fertility issues.</p> <p>Advise a female athlete on health and performance implications of hormonal and non-hormonal choices for contraception.</p> <p>Assess and advise an athlete on pelvic pain, continence and lower urinary tract symptoms and recognise when to refer to a pelvic health specialist physiotherapist.</p>
Older Athletes	<p>Changes in epidemiology of injury with age.</p> <p>The effect of ageing on various organ systems and subsequent impact on athletic performance.</p> <p>Health considerations of exercise and injury risk; including cardiorespiratory</p>	<p>Design and implement injury prevention programmes for the older athlete.</p> <p>Design and implement specific training programmes for the older athlete, including advising on physical activity and exercise prescription with</p>



	<p>and musculoskeletal systems.</p> <p>Hormonal variations with age and impact on health and exercise performance; including perimenopause, menopause, post-menopause and testosterone variations in male athletes.</p> <p>Anti-doping rulings related to testosterone and hormonal supplementation.</p>	<p>consideration for a range of co-morbid health conditions.</p> <p>Appropriately diagnose, investigate and manage older athletes to safely maximise their health and performance with consideration of hormonal variations related to age, whilst adhering to relevant anti-doping rules. Including perimenopause, menopause, post-menopause and testosterone variations in male athletes</p>
Retiring and retired athletes	<p>Common conditions that may require an individual to retire from certain sports.</p> <p>Roles of the Multi-disciplinary Team (MDT) and wider support network that may be involved in a decision to retire from sport.</p> <p>Potential factors that may impact the athlete after retirement from sport including physical, psychological and socioeconomic.</p> <p>Importance of identifying and then appropriately handing over medical care to the long-term caregiver.</p> <p>Barriers that the individual may encounter when</p>	<p>Appropriately identify, diagnose and manage conditions that may require the athlete to retire from sport.</p> <p>Work with the MDT and the athlete to assist the individual to make prudent decisions around retirement from sport.</p> <p>Identify potential issues pertinent to the individual and put strategies in place to remedy their impact including signposting or referring to appropriate services.</p> <p>Explain key elements to be included in a written report of an individuals' injuries in the assessment of occupational related injury.</p>

	<p>transitioning from professional sport to physical activity for health.</p>	<p>Produce oral and written reports and electronic records to the appropriate GP, specialists and allied health professionals.</p> <p>Understand and identify barriers to physical activity for health in these individuals and counsel them in decision making around physical activity.</p>
Paediatric Athletes	<p>Anatomical and physiological differences in children and adolescents.</p> <p>Patterns of normal growth and development including puberty and its normal variations.</p> <p>Common sports injuries in children and adolescents:</p> <ul style="list-style-type: none"> <li>• Traumatic fractures</li> <li>• Stress fractures – high and low risk</li> <li>• Pars fractures</li> <li>• Traction apophysitis</li> <li>• Avulsion fractures</li> <li>• Biomechanical problems (Medial Tibial Stress Syndrome (MTSS) and Patellofemoral pain)</li> <li>• Concussion</li> </ul>	<p>Perform a concussion assessment in a child and adolescent.</p> <p>Recognise and provide initial management for life-threatening airway, breathing or circulatory compromise in children and adolescents.</p> <p>Recognise and treat anaphylaxis in children and adolescents.</p> <p>Assess nutritional status in a child/adolescent and how to screen for disordered eating.</p> <p>Demonstrate the ability to seek help when required when dealing with children and adolescents and knowledge of where to seek appropriate help.</p> <p>Recognise and respond to psychological effects of</p>

	<p>Common medical problems in child and adolescent athletes:</p> <ul style="list-style-type: none"> <li>• RED-S</li> <li>• Asthma</li> <li>• Exercise-induced Laryngeal Obstruction (EILO)</li> <li>• Fatigue and underperformance</li> </ul> <p>Common psychological problems in child and adolescent athletes:</p> <ul style="list-style-type: none"> <li>• Parental pressure</li> <li>• Balancing sport and school</li> <li>• Holistic development and pastoral care</li> <li>• Adolescent awkwardness and motor incoordination</li> <li>• Educating parents and children</li> </ul> <p>How to take a history from a child/adolescent which is relevant to their presenting complaint with consideration of mechanism of injury/causative factors.</p> <p>How to perform a musculoskeletal examination in a child/adolescent including interpretation and</p>	<p>illness and injury in children and adolescents.</p> <p>Recognise the benefits of multi-disciplinary teams in care of children and adolescents.</p> <p>Recognise special needs of adolescents during consultation.</p> <p>Address safeguarding concerns in children and adolescents.</p> <p>Work with the MDT to develop and implement a comprehensive rehabilitation plan for musculoskeletal injury in children and adolescents.</p> <p>Support coaches and other members of the MDT in the development of movement and technical competencies in a chosen sport or activity.</p>
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	<p>discussion of physical findings.</p> <p>Investigation and management of common sports injuries and medical problems in children and adolescents.</p> <p>Issues relating to consent and confidentiality in children and adolescents, including Fraser guidelines and Gillick competency.</p> <p>Common causes of accidents in children and adolescents including safeguarding implications and prevention strategies.</p> <p>Common safeguarding concerns in children and adolescents.</p> <p>Common causes of fatigue and underperformance in paediatric athletes.</p> <p>Common nutritional deficiencies and how to diagnose and manage these (Iron, Vitamin D, those associated with Relative Energy Deficiency in Sport).</p>	
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	<p>Clinical presentation of young people with eating disorders.</p> <p>Contraceptive and sexual health issues including sexually transmitted infections and teenage pregnancy and how to provide appropriate advice.</p> <p>Features of depression in children and adolescents and when to refer to specialist services.</p> <p>Causes of cardiac arrest in children, the prognostic factors that influence the outcome and how to provide basic life support and advise others.</p> <p>Causes and features of anaphylaxis.</p> <p>Where to find out information necessary for safe prescribing through use of paediatric formularies and pharmacy liaison.</p> <p>Athlete development, including training components:</p> <ul style="list-style-type: none"><li>• Monitoring the paediatric athlete.</li><li>• Bio-banding.</li></ul>	
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	<ul style="list-style-type: none"> <li>Resistance training as a component of rehabilitation that is appropriate to a specific injury and the individual's age and development.</li> </ul>	
Para-Athletes	<p>Epidemiology of injury and illness in para-athletes.</p> <p>Subtypes of Cerebral Palsy, clinical manifestations and impact on health and performance.</p> <p>Health considerations for medical care of spinal cord injured athletes including bowel and bladder care, pressure care, skin care, thermoregulation and Autonomic Dysreflexia.</p> <p>Physical health considerations for non-ambulant athletes including wheelchair users.</p> <p>Physical health considerations for upper and lower limb deficient athletes including appropriate skin hygiene and stump management.</p> <p>Physical, mental and social health considerations for athletes with intellectual impairments.</p> <p>Physical, mental and social health considerations for</p>	<p>Design and implement appropriate injury and illness prevention programmes specific for para-athletes.</p> <p>Recognise and manage physical symptoms related to Cerebral Palsy that may impact on health and performance including hypertonia, dyskinesia and ataxia.</p> <p>Support spinal cord injured and wheelchair user athletes on strategies to maximise their health through effective bowel and bladder care, pressure area management and skin hygiene.</p> <p>Recognise, diagnose, manage and understand the performance impact of Autonomic Dysreflexia.</p> <p>Advise an athlete with an upper and/or lower limb deficiency on appropriate preventative and management strategies related to optimising skin and stump health.</p>

	<p>athletes with visual impairments.</p> <p>Impact on health and performance for a range of other para-athletic classifiable health conditions including dwarfism and neurological conditions including multiple sclerosis.</p> <p>Principles and process of para-athlete classification and categorisation in sport.</p>	<p>Develop and implement strategies to support athletes who may have thermoregulatory issues to train and compete safely in environmentally challenging climates.</p> <p>Maximise healthcare provision and performance in athletes with an intellectual impairment including appropriate involvement of parents and carers.</p> <p>Recognise and appropriately manage athletes with neurological conditions including functional neurological disorders and the impact on health and para-athlete classification.</p> <p>Support a para-athlete through classification, including recognition and management of ethical, governance and moral issues related to classification.</p>
Transgender Athletes	<p>The World Anti-Doping Agency (WADA) Anti-Doping Code / The Prohibited List and how medical treatment for transgender athletes may have anti-doping considerations.</p> <p>The epidemiology of transgender athlete participation in sport.</p>	<p>Apply knowledge and consider benefits and risks of treatment and ongoing monitoring/screening that may be required in these athletes.</p> <p>Recognise the relevance of these performance characteristics and attributes in different sports and their interaction with</p>

		<p>safety and fair competition and injury risk for patient and fellow participants.</p> <p>Discuss with stakeholders including Clean Sport and Anti-Doping organisations, to consider the implications of medical treatments for gender transition for clean sport and transgender individuals.</p> <p>Understand the barriers to transgender athlete participation and an awareness of strategies to enhance participation and access to sport.</p>
Sex based categorisation in sport	<p>The history of female participation in sport and the importance of and rationale for sex categorisation within most sports. Recognise the lack of sex categorisation in some sports.</p> <p>Differences between males and females with respect to the development of physical, physiological and other characteristics that impact on sport.</p> <p>Common conditions, collectively termed differences of sexual development (DSD). These include Congenital Adrenal Hyperplasia, Androgen Insensitivity Syndrome, Klinefelter and Turner</p>	<p>Recognise and identify the challenges of methods used to test eligibility for the female category.</p> <p>Understand the impact that male/female differences, particularly from puberty, have on training and sports performance.</p> <p>Apply understanding of the differences between males and females when conducting or applying research within sport and exercise medicine.</p> <p>Consider current sex-based research inequalities when conducting research.</p> <p>An awareness of the medical, ethical and</p>

	<p>syndrome. Know which experts to involve in their multi-disciplinary care.</p> <p>The existing eligibility policies on sex categorisation in the major sports and those in which you work. This may include separate policies related to transgender athletes or those with DSD.</p> <p>The relevant legislation in this area, particularly relating to sex-based exemptions within equality legislation and the legal process of changing gender. Describe the difference between gender and sex and accurately use these terms in communication.</p> <p>The impact of female categories for females in sport.</p> <p>The barriers to female participation and the persisting inequalities between female and male athletes.</p>	<p>performance aspects of healthcare of athletes with DSD.</p> <p>Apply this knowledge of performance characteristics, male/female development, medical aspects and legislation to contribute to discussions regarding fairness, safety and inclusion perspectives related to sex-based categorisation in sports.</p>
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## Module 5: Specific health conditions

Subject Area	Knowledge Should be able to describe:	Skills Should be able to:
Mental Health & Wellbeing	<p>Risk factors for suicide and a safe process for asking about risk of suicide.</p> <p>Aspects of athletes' unique experiences that are relevant to risk to self-harm and suicide in sport.</p> <p>Common mood disorders and common precipitants for mental health disorders in athletes.</p> <p>Concepts of athletic identity and transition that arise in athletes at different stages of their sporting journeys.</p> <p>The relationship between injury and mental health and wellbeing.</p> <p>Harassment and abuse, the effects of trauma on mental health; outline key features of Post Traumatic Stress Disorder (PTSD).</p> <p>The relationship between sleep, sleep disorder and mental wellbeing.</p> <p>Typical presentation of Attention Deficit Hyperactivity Disorder (ADHD), including the</p>	<p>Make a preliminary assessment of suicide risk and draw up a safety plan with an athlete in distress; collaborate with an athlete to include contingencies that reduce risk specific to the sporting environment (e.g. whilst away on tour).</p> <p>Make preliminary assessments of these issues; know which screening tests might be helpful to offer an athlete with low mood; be able to discuss some basic mood management strategies; know when to refer for specialist assessment.</p> <p>Discuss with an athlete in an informed way some of the key psychological issues related to injury, pain and mental ill health in athletes; know when to refer to a clinical psychologist or sports psychiatrist.</p> <p>Use safeguarding processes; know when to refer an athlete to a mental health practitioner following traumatic experiences.</p>

	<p>process UK Anti-Doping (UKAD) use to grant a Therapeutic Use Exemption (TUE).</p> <p>The range of substance use and behavioural disorders that arise in athletes; understand how these may present differently in professional sport; outline and understand common substances and behaviours involved; discuss the organisations and approaches that may offer help and support in their sport.</p> <p>Low energy availability, disordered eating, eating disorder and Relative Energy Deficiency in Sport (RED-S).</p> <p>Differences of competitive anxiety (and choking) from clinically significant presentations of anxiety such as panic disorder, social anxiety, generalised anxiety disorder.</p> <p>Concepts of psychological safety and mentally healthy team environments.</p>	<p>Offer advice about sleep hygiene; know when to refer for further assessment; explain an outline of Cognitive Behavioural Therapy for Insomnia (CBT-I) principles for an athlete who might need referral for this.</p> <p>Show an awareness of the diagnostic requirements in athletes with ADHD and its relationship to TUE.</p> <p>Gain an athlete's confidence in this topic area; ask with sensitivity the key screening questions that relate to uncovering substance use problems and related behavioural disorders.</p> <p>Know which screening tests might be helpful in relation to food, body image and energy availability; know when and how to refer for specialist assessment.</p> <p>Know which screening tests might be helpful to offer an anxious athlete; be able to discuss some basic anxiety management strategies; know when to refer for specialist assessment.</p> <p>Notice power dynamics in teams; reflect on and notice mentally unhealthy or unsafe environments in teams; know when to</p>
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		whistle blow or intervene; use peers and other professional support to manage ethical dilemmas and challenges in sport.
Sports related concussion	<p>The basic anatomy of the skull, meninges and cerebrum.</p> <p>Concussion and the pathology of concussion, sub-concussive impact and head acceleration load.</p> <p>The epidemiology of concussion.</p> <p>Natural history of concussion including potential mechanisms, loss of consciousness and late presentations.</p> <p>Potential short-, medium- and long-term complications of concussion.</p> <p>National and international concussion consensus statements and guidelines; including Digital, Culture, Media and Sport Select Committee (DCMS), Amsterdam and National Institute for Health and Care Excellence (NICE).</p> <p>Preventative measures that may reduce the occurrence or severity of concussion. For example, neck strength, nutrition (creatine, omega 3 oils), protective equipment, law changes.</p>	<p>Clear the cervical spine on field and in a training environment.</p> <p>Perform a pitch side and clinic room examination of the face and eye.</p> <p>Perform a SCAT assessment.</p> <p>Perform a VOMS assessment.</p> <p>Perform a SCOAT assessment.</p> <p>Design a GRTP for an adolescent athlete referring to current international guidelines.</p> <p>Design a GRTP for an adult athlete referring to current international guidelines.</p>

	<p>The assessment of Head injury as the presenting complaint with concussion as a final diagnosis. e.g. the need to assess for concurrent facial fracture, cervical spine fracture, eye injury, extra-Dural haematoma, dental injury and laceration and avoid confirmation bias when assessing.</p> <p>On-field recognition and “if in doubt sit them out” approach</p> <p>Tools and tests to aid the clinical diagnosis of concussion. e.g. Sport Concussion Assessment Tool (SCAT), Sport Concussion Office Assessment Tool (SCOAT), Vestibular Ocular Motor Screening (VOMS) and Computerised Neurocognitive tests.</p> <p>Pre-hospital indications for transfer to hospital and CT scanning. e.g. NICE guidelines.</p> <p>Safety netting and the importance of early (written) advice post-diagnosis.</p> <p>An “Enhanced setting” for concussion management.</p> <p>Principals of concussion management, rehabilitation and the Graduated Return to Play (GRTP).</p>	
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	<p>Concussion modifiers and special groups e.g. Females, Adolescents.</p> <p>Definitions of persisting concussion symptoms and common causes.</p> <p>Clinic based advice for patients with persisting concussive symptoms.</p>	
Principles of injury management and rehabilitation	<p>Typical epidemiological injury patterns for common sports.</p> <p>Immediate injury management on the field of play and in the immediate post injury period.</p> <p>Red flags associated with any injury and indications for referral for emergency assessment in hospital.</p> <p>A range of common injuries in terms of structures involved, relevant local and distant anatomy and pathology of that injury.</p> <p>Principles and phases of the healing process with an emphasis on the first 2 weeks (Protection, Optimal Loading, Ice, Compression, Elevation (POLICE)).</p> <p>The multi-disciplinary team roles and functions in injury management.</p> <p>Indications for use of diagnostics throughout the post-injury and rehabilitation period.</p>	<p>Observe and assess mechanism of injury and structures likely to be involved either through direct injury observation or on video replay.</p> <p>Draw up a rehabilitation plan in partnership with other health professionals and the injured athlete.</p> <p>Discuss with the athlete the nature of the injury, rehabilitation plan, estimated key milestones and safety netting and reasons to re-assess.</p> <p>Explore athlete ideas, concerns and expectations and satisfy these through education and explanation.</p> <p>Understand principles of patient confidentiality and consent within a team environment in relation to injury.</p> <p>Discuss with appropriate team non-medical colleagues the nature of the</p>

	<p>Principles of rehabilitation and able to relate rehabilitation/exercise modalities/types to specific injuries.</p> <p>Principles of tissue load, adaptation to load and mechanotransduction.</p> <p>Principles of aerobic, anaerobic and strength training.</p> <p>The effect of psychosocial factors on injury management and recovery from injury.</p> <p>The place/value/evidence for adjunct therapies including but not limited to electrotherapy, mobilisations, hydrotherapy, shockwave.</p> <p>Indications and contra-indications for use of drugs in immediate post-injury period and during rehabilitation.</p> <p>The use and pros/cons of a variety of injection therapies during rehabilitation including but not limited to corticosteroid, Platelet Rich Plasma (PRP), viscosupplementation, prolotherapy.</p> <p>Indications for surgical treatment in injury management.</p>	<p>injury, plan, milestones and expected return to play.</p> <p>Know when and how to seek help, consult with peers where complex challenging problems.</p> <p>Discuss and refer an athlete to a hospital and/or consultant e.g. for emergency management or elective surgical consideration.</p> <p>Effectively communicate regarding injury prognosis and Return to Play (RTP) with an athlete and discuss appropriate supportive measures.</p> <p>Risk assess return to play taking into account all factors internal and external to the athlete.</p> <p>Explain pros/cons of return to play at any specific time to athletes and coaches and be part of an informed pragmatic decision from all parties.</p> <p>Document all assessments, opinions, discussions, and decisions in a suitable patient record.</p> <p>Audit injury patterns in your group of athletes, identify any recurring injury themes or causes and produce an injury prevention plan in</p>
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	<p>Principles behind return to play decisions and risk management related to the evidence-base.</p> <p>The nature and implications of career ending injuries for athletes.</p> <p>Current regulations around anti-doping matters when considering medication or injection therapy proposed in injury management. The current World Anti-Doping Agency (WADA) code and UKAD regulations.</p>	<p>partnership with relevant colleagues.</p> <p>Develop an injury prevention protocol for the team in association with colleagues.</p> <p>Explain to an athlete, coach or colleague how to gain further information regarding proposed medication as part of injury rehabilitation.</p>
Performance threat management related to health conditions	<p>The concept of performance threat management related to health conditions when managing an athlete or team.</p> <p>The complex interplay of all members of the medical team and coaching staff in managing performance threat.</p> <p>How common medical conditions will affect performance including, but not limited to:</p> <ul style="list-style-type: none"> <li>• Asthma.</li> <li>• Diabetes.</li> <li>• ADHD.</li> <li>• Epilepsy.</li> <li>• Allergy and anaphylaxis.</li> <li>• Exercise induced Laryngeal obstruction (EILO).</li> <li>• Common viral infections including</li> </ul>	<p>Design and lead an integrated Multi-disciplinary Team (MDT) approach to:</p> <ul style="list-style-type: none"> <li>• Risk assessment</li> <li>• Implementation of mitigating actions</li> <li>• Review of performance threat management related to a specific medical condition prior to preseason training</li> </ul>

	respiratory and gastrointestinal infections.	
Effect of exercise on immune health, inflammation and recovery strategies	<p>The basic effects of acute exercise on innate and adaptive immune function.</p> <p>Controversy surrounding the “open window” theory of intense exercise leading to temporary immunosuppression.</p> <p>What factors other than intense exercise affect immune function in team athletes e.g., travel, stress, sleep, exposure to novel pathogens.</p> <p>The long-term benefits of exercise on immune function.</p> <p>The basic principles of how exercise may reduce long term inflammation and hence reduce risk of cardiovascular and other disease.</p> <p>The various techniques, tools and principles behind recovery from exercise and its effectiveness including; DOMS, Perceived fatigue, Creatine Kinase and Inflammatory markers, Massage, Immersion, Compression, Cryotherapy and Active Recovery.</p> <p>The effects on athletic performance of sleep deprivation and recognising potential sleep disorders.</p>	<p>Design policy, recommendations and strategies to mitigate threats to immunity around periods of intense exercise, travel or competition.</p> <p>Reassure and educate ageing athletes and teams on the longer-term benefits of continued exercise and participation on immunity and cardiovascular health.</p> <p>Design multimodal MDT recovery strategies for an athlete/team around training, performance and travel dependant on resources.</p> <p>Design and implement a sleep strategy for an athlete/team taking in to account usual training diary, competition dates and travel including domestic and international.</p>

	<p>The effects on athletic performance of sleep extension.</p> <p>The effects of travelling across time zones or latitude on sleep and performance.</p> <p>The basic principles of good sleep hygiene.</p>	
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## Module 6: Duties of the medical team

Subject Area	Knowledge Should be able to describe:	Skills Should be able to:
<p>Anti—doping and effect of medication and supplementation on sports performance</p>	<p>Historical context of prohibited substance use in sport and development of national and international Anti-Doping strategies.</p> <p>Development and details of the World Anti-Doping Agency (WADA) prohibited list.</p> <p>How to carry out an assessment of the risk of medication use, both in and out of competition, in order to correctly identify prohibited use.</p> <p>Clean sport values and how support staff and athletes can raise concern and protect clean sport.</p> <p>Different types of Anti-Doping Rule Violations (ADRVs) and their potential consequences.</p> <p>Current UK Anti-Doping education strategy and courses for athletes and support staff.</p> <p>Principles of assessing need, assessing risk and assessing consequence related to supplement use.</p>	<p>Use Global Drug Reference Online (DRO) and Informed sport websites to assist in assessment of risk and advice on medication and supplement use to individuals in different sports – both in and out of competition.</p> <p>Identify when and how to apply for a Therapeutic Use Exemption (TUE) and specific requirements including Hay Fever, Asthma, Attention Deficit Hyperactivity Disorder (ADHD), Adrenaline auto-injectors, Diabetes and Glucocorticoids.</p> <p>Provide team based educational support related to Anti-Doping and supplement use.</p> <p>Advise and support an individual athlete on aspects of anti—doping and supplement use.</p> <p>Support an athlete through the Anti-Doping testing, doping control process and follow up in the event of an ADRV.</p>



	<p>Supplements that may contribute towards optimum athletic health and performance.</p> <p>Dosing regimens, risks and side effects of non-prohibited performance enhancing supplements.</p> <p>Athletic performance impacts of prescribed medication and alternatives to commonly prescribed medication.</p>	<p>Identify and advise an athlete on potential performance and adverse health impacts of prescribed medication, supplements and herbal remedies.</p>
Travelling with a team	<p>The process of planning medical requirements for a sporting competition overseas.</p> <p>Medical screening of travelling party &amp; necessary insurance requirements.</p> <p>Requisition of appropriate medical supplies, medications &amp; awareness of potential customs issues in appropriate country.</p> <p>Immunisation requirements and local disease prevalence.</p> <p>Time zone travel and recovery implications; including jet lag, travel fatigue and management of these issues.</p> <p>The process of emergency action planning including</p>	<p>Liaise prior to travel with local medical teams, healthcare facilities, emergency services and imaging facilities.</p> <p>Plan for hospitalisation of athletes or party members and repatriation.</p> <p>Recognise the planning implications for taking a team abroad including an advance reconnaissance trip and who should attend.</p> <p>Understand why medical screening of the travel party is so important and understand the process involved.</p> <p>Demonstrate understanding of insurance requirements –</p>

	<p>hotel, training and match venues.</p>	<p>personal, medical and travel.</p> <p>Source appropriate medications and operate a robust medicines management policy to enable travel overseas.</p> <p>Understand the customs requirements for travel with medicines and how they vary from country to country.</p> <p>Provide up-to-date immunisation advice to the whole travelling party well in advance of the proposed trip.</p> <p>Research and educate travelling party regarding indigenous diseases and local health risks of country travelling to.</p> <p>Have knowledge of risks to athlete of foreign travel, particularly regarding travel through time zones.</p> <p>Implications for training and recovery post-travel.</p> <p>Devise a specific programme to reduce the risks associated with jet lag in order to minimise</p>
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		<p>disruption to the athlete and team.</p> <p>Put in place an appropriate Emergency Action Plan(EAP) and demonstrate an awareness of the items that need to be included in such a plan. To include variations of such EAP's for hotel, training ground &amp; playing venue.</p> <p>Demonstrate ability to activate prior medical planning in terms of utilising local medical support, emergency transport services, emergency medical supplies, imaging as required.</p> <p>Put in place plans for hospitalisation of injured players / ill staff including how this is funded at the point of care. Have appropriate plans in place for prolonged hospitalisation of players / staff and steps needed to arrange emergency repatriation of athletes back to the UK.</p>
Event planning and preparation including field of play medical care	Risk assessment relating to the sport involved – frequency & severity of trauma, common injuries, number of competitors /	Identify high-risk sports requiring pitch side trauma support.

	<p>potential casualties, size of field of play.</p> <p>Risk assessment relating to venue – accessibility of field of play, relative location to Emergency Department &amp; Trauma centre, access routes for ambulance/helicopter.</p> <p>Risk assessment relating to environment – hazards (e.g. body of water), heat/humidity levels, altitude, air quality, infectious disease outbreak.</p> <p>Considerations for medical team staff planning (Green Guide) – number required, role &amp; skill mix, qualifications &amp; experience levels, methods of communication.</p> <p>The importance of not overburdening local NHS services.</p> <p>The role of pre-event information sharing, team briefing &amp; emergency scenario practice.</p> <p>Medical supply requirements – facilities, diagnostics, Automated External Defibrillator (AED), oxygen, Personal protective equipment (PPE), trauma bag contents, emergency medications, number of kits.</p>	<p>Calculate minimum required medical staffing for sports grounds.</p> <p>Create risk assessment &amp; emergency action plan for venue and sporting event.</p> <p>Establish minimum standards of medical equipment required for a sporting event.</p> <p>Identify risk and develop strategies to prevent and manage heat illness.</p> <p>Appropriately assess, manage and refer the following:</p> <ul style="list-style-type: none"> <li>• Dental injuries sustained on the field of play.</li> <li>• Skin wounds sustained on the field of play.</li> </ul>
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	<p>Maintenance, storage &amp; regulations relating to emergency equipment &amp; medication.</p> <p>Methods &amp; medicolegal regulations for medical record keeping at &amp; post-event.</p> <p>The role of pre-event screening &amp; medical histories (SAMPLE).</p> <p>The role of medical policy for large events – emergency action plans, infectious diseases, major incident plan.</p> <p>The role of post-event reflection &amp; debrief.</p>	
Athlete monitoring, profiling and screening for health and performance	<p>The principles of athlete monitoring, profiling and screening.</p> <p>Common injuries and medical conditions affecting athletes and evidence based profiling and preventative strategies.</p> <p>The ethical and legal considerations associated with sport team care.</p> <p>Governing body standards and frameworks around monitoring and screening.</p> <p>The ethical and legal considerations associated</p>	<p>Develop and implement athlete monitoring and profiling programs that may help to optimise health and performance.</p> <p>Conduct medical screening and assessment for athletes.</p> <p>Provide emergency medical care and injury management on and off the field.</p> <p>Demonstrate different techniques for measuring physical fitness and performance.</p>

	with providing medical care to athletes.	<p>Demonstrate methods for monitoring training load and recovery.</p> <p>Demonstrate strategies for developing athlete profiles and managing injuries.</p> <p>Demonstrate techniques for conducting medical screening and assessment.</p> <p>Have the ability to use diagnostic tools and imaging technology in the assessment of an athlete.</p> <p>Collaborate with other healthcare professionals in the data collection and management of profiling, screening and performance.</p>
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