

**SPORTS MEDICINE PROGRAM  
PROGRAM DESCRIPTION & EDUCATIONAL OBJECTIVES  
FOR ENHANCED SKILLS RESIDENTS**

**INTRODUCTION**

The Primary Care Sport and Exercise Medicine (SEM) program at the Fowler Kennedy Sport Medicine Clinic (FKSMC) is a one year Clinical training program in the Enhanced Skills Program within the Department of Family Medicine at Western University, Schulich School of Medicine and Dentistry.

- Established in 1974, the Fowler Kennedy Sport Medicine Clinic has been recognized internationally as a leader in sport and exercise medicine. With the focus on research and education, Fowler Kennedy has set the standard for excellence in sport medicine by providing high quality, timely, comprehensive and compassionate care for active people of all ages, from recreational enthusiasts to professional athletes.
- As a non-profit, Fowler Kennedy receives support and collaboration from London Health Sciences Centre (LHSC), Western University, and philanthropy to put patients first and research new solutions to shape the future of sport medicine.
- With two different locations in London, Ontario, Fowler Kennedy can provide high quality sport medicine care in addition to the following services:
  - o Physiotherapy
  - o Sport concussion assessment and treatment
  - o Surgical and non-surgical treatment for sport injuries
  - o Registered massage therapy
  - o Customized knee braces
  - o Custom orthotics and gait analysis
  - o WOLF Biomechanical Lab
  - o EMG and PM&R Consultation
  - o On-site x-ray and ultrasound
  - o Ultrasound-guided injections and PRP

The PGY3 program is designed to enhance skills and knowledge in the multiple facets of Sport and Exercise Medicine – injury assessment/treatment, medical issues in sport and activity, preventative medicine, event coverage, doping issues, etc. It is structured to provide a comprehensive curriculum but is flexible enough to accommodate the needs of the individual residents. Residents also have responsibilities to provide medical services for Western University varsity teams for home games and hosted tournaments. The Clinic is also involved in volunteer coverage for several community, provincial, and national events. The resident will develop the skills to assume a leadership role in the organization of medical coverage. There are also opportunities to participate in provincial and national event medical coverage.

**STRUCTURE AND LEARNING ENVIRONMENT**

The Fowler Kennedy Sport Medicine Clinic was established in 1974 by Dr. Jack Kennedy as a clinic to provide specialized sport medicine services to varsity athletes at Western University. Since its inception, the clinic has grown to an internationally recognized sport medicine facility

with two locations in London, a staff of over 100, and over 90,000 patient visits per year. The clinic has become a valued resource to the city of London and surrounding areas and a recognized leader in the field of sport medicine.

The main site of Fowler Kennedy Sport Medicine Clinic is located on the campus of Western University and is associated with the Faculty of Health Sciences (School of Kinesiology, School of Physiotherapy) and the Schulich School of Medicine and Dentistry (Department of Family Medicine and Orthopaedics). This building, completed in 1996, is a two-floor structure with the Clinic on the lower level (approximately 20,000 square feet) and the School of Kinesiology on the upper level. There is one satellite clinic located at Fanshawe College, which also functions as a Student Health Service clinic for the College. There are upcoming plans for a third site in the south aspect of London in the near future.

FKSMC has provided a primary care sport medicine “fellowship” since 1987 and many of the graduates of the program have gone on to teach and create other sport medicine programs at academic centers across the country. We continue to lead the way in development and implementation of national standards for SEM and are an accredited Category 1 program in the enhanced skills program at Western University.

The Western University facility is a multidisciplinary clinic with onsite primary care, orthopaedics, PM&R, physiotherapy, RMT, custom orthotics, on-site bracing, and in-house x-ray and diagnostic ultrasound.

Physicians see patients of all ages who have activity or sport and exercise related injuries and/or medical problems. The patient level of activity ranges from the “weekend warrior” to the elite athlete. The musculoskeletal types of problems range from acute sprains and strains to chronic problems that interfere with the ability to stay active. We also deal with medical (non-musculoskeletal) conditions related to physical activity (e.g. pregnancy and exercise, doping, asthma, etc.), and provide preventative care for those seeking advice on exercise prescription and injury prevention

At the Fanshawe College clinic, physicians provide full range student health services to students of Fanshawe College, as well as acute/emergency care medicine for faculty and staff. They also provide a full range sport medicine service (as above) to community patients and to students.

## **TEACHING DUTIES**

The staff physicians have the responsibility for teaching medical students, residents, and undergraduate students at Western University. Family Medicine Residents (both PGY1 and PGY2) regularly rotate through the Clinic for one-month blocks of clinical teaching. There are also medical students and residents from other disciplines (i.e. Physical Medicine and Rehabilitation, Emergency Medicine, Rheumatology, Orthopaedics, etc.). Staff Physicians also provide lectures to both PGY1 and PGY2 Residents on sport medicine related topics. During the fellowship, the PGY3 resident becomes progressively more involved in teaching, with graduated responsibility, and leadership roles are assigned with teaching and sport medicine event planning.

## **EDUCATIONAL RESOURCES**

There is open access to web based educational resources for research and education. Most major sport medicine journals are available in the clinic, as are numerous orthopaedic and primary care textbooks. There is also full access to the libraries at Western University and the London Health Sciences Centre.

Onsite multidisciplinary care is a unique strength of our clinic and provides the opportunity to quickly and openly discuss difficult cases with colleagues and specialists.

The School of Kinesiology has a lecture theatre with seating for 175 people and multiple classrooms for teaching, and the Centre for Studies in Family Medicine has a large lecture theatre and meeting rooms. Each area is fully equipped with all AV needs.

## **ORGANIZATION OF THE SPORTS MEDICINE PROGRAM**

The PGY3 program is run in conjunction with the academic Department of Family Medicine to ensure educational objectives comply with the needs of both the Enhanced Skill Program (to meet the competencies for a CAC in sport and exercise medicine) and Department of Family Medicine.

The resident will spend the first one to two months of the PGY3 year seeing patients with the direct supervision of the Primary Care Sport and Exercise Medicine physicians, who function as preceptors and carry out direct reviews of the patient encounters. Throughout the year, at least one-half day per week will be spent in clinic with the Sport and Exercise Medicine Program Director or a senior primary care physician, to allow for ongoing teaching and evaluation, as well as providing an opportunity to review difficult cases.

Throughout the remaining months, the resident will continue to see patients in clinic, with access to both primary care and orthopaedic consultants, but will also spend time with other identified speciality groups.

One to two half days per week will be spent at the Fanshawe College satellite clinic providing full range Student Health Services and urgent care to the students and staff at Fanshawe College, to ensure the resident has the opportunity to maintain and continue to develop skills in family medicine.

The resident will also spend several half days per month in the Orthopaedic Sport Medicine Outpatient Clinic, working directly with the surgeons. This provides an understanding of the process from initial visit and preliminary treatment to surgical intervention as necessary.

There is ample exposure to the physiotherapy side of the clinic and non-surgical management of sport injuries, including functional rehabilitation, bracing, pedorthics, etc. In addition, we run an "Acute Injury Clinic" where patients can be seen directly for injuries occurring within the past one to two days.

The remaining half days are reserved for research, education, and time with other specialists in the city (Hand and Upper Limb Centre, Centre for Activity and Ageing, PM&R, Pediatric Orthopaedics, Rheumatology, etc.). The Sport and Exercise Medicine Program Director will

ensure appropriate specialist teachers are identified for all rotations and may appoint a coordinator from amongst these teachers.

The resident will be expected to be in attendance from 8:00 am to at least 5:00 pm daily with attendance at teaching and research rounds mandatory at other times. There are no specific on-call duties, however the resident will participate in after-hours services for Pre-Participation Physical Examinations for the varsity athletes at Western University and coverage for varsity sport teams, and community events. Over the course of the year, as part of his/her training, the resident will assume major responsibility for the organization and implementation of medical coverage for at least one community sporting event.

## **ULTRASOUND CURRICULUM**

The FKSMC has two Sonosite ultrasound machines used to perform ultrasound-guided procedures by most of our Sport and Exercise Medicine Physicians. The resident is encouraged to become proficient early in the fellowship as there are abundant opportunities for diagnostic scanning and therapeutic procedures. There are structured and accredited teaching rounds every three months at the St. Joseph Pain Management Program where residents from Anesthesia, Physiatry, Anesthesia/Pain, and Sport Medicine practice ultrasound scanning and discuss therapeutic procedures of each residency discipline. The resident will also have unstructured scanning sessions supervised by Sport Medicine Staff Physicians to help master ultrasound skills. New to the program in 2021, an annual ultrasound injection course at the Schulich School of Medicine and Dentistry's cadaver lab is planned for early in the fellowship to give the resident a comprehensive overview of ultrasounds physics, knobology, sonoanatomy, and injection techniques for procedures into any joint, bursa, tendon, nerve, or muscle.

## **SCHOLARLY ACTIVITIES**

1. All residents in the Enhanced Skills Program are required to complete a scholarly project. A formal presentation at Resident Research Day in June is required. Topics should be discussed with your Program Director and the director of the Enhanced Skills Program with the Dept. of Family Medicine. Please refer to the Enhanced Skills Orientation Manual for more direction regarding project requirements and departmental assistance with funds, ethics approval, literature reviews, etc.
2. The resident is encouraged to teach at PGY1/PGY2 academic half day on a topic related to their field of specialization. This can be discussed with the Academic Program Director and the Enhanced Skills Program Director.
3. Weekly morning (Thursdays 7:00 am to 8:00 am) Sport Medicine Rounds are attended by Primary Care, Orthopaedics, and Physiotherapy, as well as graduate students in various Master's and PhD programs plus other disciplines of Engineering, Physiotherapy and Health Sciences. These rounds feature multidisciplinary case presentations, research rounds, journal club, and special guest lecturers. The resident will be expected to present at these rounds.

4. One per week (Tuesdays 7:00 am to 8:00 am) Orthopaedic Sport Medicine Rounds runs by our Orthopaedic surgeons are mandatory.
5. One per week (Thursdays 8:00 am to 9:00 am) Physiotherapy Rounds are held to discuss topics of interest to both primary care and physiotherapy and the residents are required to attend and sometimes teach.
6. Once per month, Primary Care Journal Club/Rounds will take place with the residents meeting with one of the Primary Care staff to discuss priority topics in Sport Medicine.
7. Once per week, Orthopaedic Grand Rounds take place at the various teaching hospitals (7:15 to 8:15 am) followed by Orthopaedic Clinical Teaching Rounds which the resident is encouraged to attend.
8. Once per week, Orthopaedic (Sport Medicine/Arthroplasty) Rounds are held at London Health Sciences Centre – University Campus and again the resident is encouraged to attend.
9. Daily rounds are also held at the Hand and Upper Limb Centre and the resident is invited to attend.
10. Time is also provided to attend monthly Family Medicine Grand Rounds and other rounds held by the Dept. of Family Medicine that are of interest.
11. There is a yearly Homecoming Sport Medicine Symposium at Western University that is mandatory for the resident to attend. The resident will be provided with educational leave for conferences, ongoing CME, and may also attend other regional and national Sport Medicine Symposia throughout the year. The resident is encouraged to attend the annual OMA Sport Med Day conference and the annual Canadian Academy of Sport and Exercise Medicine (CASEM) Conference. Applications for educational leave must be submitted to the Program Director and administrative assistant for consideration.
12. The Clinic is an academic teaching centre at Western University and as such, has a mandate to be involved in clinical research. Our physicians participate in numerous research initiatives, often in a multidisciplinary model of care.

<b>SAMPLE SCHEDULE</b>				
<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>UWO Physicians</b> 3 primary care clinics 8:00 am to 5:00 pm  2 orthopaedic clinics  Acute Injury Clinic 1:00 pm to 4:00 pm  US guided injections pm  Varsity clinic	3 primary care clinics 8:00 am to 5:00 pm  3 orthopaedic clinics  Acute Injury Clinic 1:00 pm to 4:00 pm  Concussion Clinic 8:00 am to 4:00 pm  Varsity clinic	3 primary care clinics 8:00 am to 5:00 pm  3 orthopaedic clinics  Acute Injury Clinic 1:00 pm to 4:00 pm  Concussion Clinic 8:00 am to 4:00 pm  Varsity clinic Teaching PGY1/2	3 primary care clinics 8:00 am to 5:00 pm  2 orthopaedic clinics  Acute Injury Clinic 1:00 pm to 4:00 pm  Concussion Clinic 8:00 am to 4:00 pm  Varsity clinic	3 primary care clinics 8:00 am to 5:00 pm  1 orthopaedic clinic  Acute Injury Clinic 9:00 am to 12:00 pm  Concussion Clinic 8:00 am to 4:00 pm  1 PM&R clinic +/- EMG  Varsity clinic
<b>Fanshawe Physicians</b>  3 primary care clinics  1 psychiatrist clinic  1 mental health counselling clinic  RN clinic  Same day booking 4 to 6	3 primary care clinics  1 psychiatrist clinic  1 mental health counselling clinic  RN clinic  Same day booking 4 to 6	3 primary care clinics  1 psychiatrist clinic  RN clinic  Same day booking 4 to 6	3 primary care clinics  1 psychiatrist clinic  1 mental health counselling clinic  RN clinic  Same day booking 4 to 6	2 primary care clinics  1 psychiatrist clinic  RN clinic  Same day booking 1 to 4
<b>PGY3 Schedule</b>  Orthopaedic Clinic or Primary Care Clinic  Acute Injury Clinic	UWO Clinic or Fanshawe Clinic  Specialty electives	Primary Care Clinic or PM&R  Academic half day	Sport medicine & physio rounds  Fanshawe clinic  Acute Injury Clinic	Primary Care Clinic  Acute Injury Clinic  Concussion Clinic

**PM AND WEEKEND – PPE DURING VARSITY SEASON, VARSITY COVERAGE FOR ASSIGNED TEAM, EVENT COVERAGE**

## **ADMINISTRATIVE SUPPORT**

Residents are provided with a shared office. They have access to support staff for various projects (preparation of research projects, presentations, etc.) including research assistants, secretarial support and administrative staff from both FKSMC and Dept. of Family Medicine. The Western Clinic is situated on campus at Western University so access to all libraries is easily available

## **TEACHING STAFF AT FOWLER KENNEDY**

The PGY3 Program Director and the Director of Primary Care Sport Medicine will be a member of the Department of Family Medicine, hold the CFPC accreditation, the CAC in Sport and Exercise Medicine, and the CASEM Diploma in Sport Medicine. He/she will have an academic position in the Dept. of Family Medicine and will be responsible for ensuring high quality educational objectives are met. The Program Director will sit on the Enhanced Skills Subcommittee of the Postgraduate Education Committee in the Department of Family Medicine at Western University. Other faculty will be appointed by the Program Director to teach in the PGY3 year and coordinators may be identified for each area. These will include specialists in related fields such as Orthopaedics, Pediatric Orthopaedics, Radiology, Pediatrics, Emergency Medicine, Physiotherapy, Rheumatology, Podiatry, etc. Regular liaison will occur to ensure educational objectives are met. The Program Director will also provide regular evaluations and act on behalf of the resident to ensure objectives are met.

The Clinic is affiliated with Western University and London Health Sciences Centre. Sport Medicine Physicians at the Clinic have an affiliation with the Dept. of Family Medicine, the Faculty of Medicine and Dentistry, Dept. of Surgery (Orthopaedics), and the School of Kinesiology (in the Faculty of Health Sciences, which also include Physical Therapy, Occupational Therapy, Nursing and Communicative Disorders). The Hospital affiliation is through the London Health Sciences Centre – University Campus with privileges at this site and St. Joseph's Health Care Centre.

## **EVALUATION**

1. The resident will be supervised daily and will obtain weekly field notes. Formal evaluations are done quarterly in person (with completion of an online evaluation through the Department of Family Medicine as well).
2. The resident will meet informally with the Director to discuss cases and review any concerns.
3. A midterm review with the Enhanced Skills Program Director will take place to assess the resident's progression either in person, by phone, or by videoconference (Zoom).
4. A final exit review will take place with the Sports Medicine Program Director.

5. The PGY3 resident will be expected to successfully meet the objectives for the CFPC CAC in SEM. The resident is also expected to sit the Canadian Association of Sport and Exercise Medicine (CASEM) national diploma examination. The CASEM Diploma is recognized internationally as the standard of excellence in sport medicine and by many franchise holders including COC, CPC, Commonwealth Games, WSIB, etc.

## **OBJECTIVES FOR SPORTS MEDICINE PROGRAM AS CONSIDERED BY THE CANMEDS-FM ROLES**

The Educational Objectives for Sports Medicine outlined below meet the standards for priority topics and key features developed by the CFPC for SEM. The Department of Family Medicine recognizes that it is not reasonable or possible to cover all topics in the field of Sports Medicine in a one-year program. Therefore, the goal of this program is to teach the recognition of the emergency situation, the concepts of patient management and the methods whereby further treatment strategies can be acquired, and competency can be inferred. Each resident will have individual goals and objectives based on individual needs and interests, as well as on areas of need from past training.

### **I. Family Medicine Expert**

#### **1. The Family Medicine Resident will become knowledgeable in the following:**

- The assessment and management of common and complex musculoskeletal conditions (see list for examples).
- Diagnostic and medical imaging.
- The assessment and management of medical conditions as they relate to exercise (i.e. diabetes, hypertension, asthma, arthritis, dermatology, infectious disease, etc.).
- The implementation of exercise as a preventative and/or rehabilitative treatment.
- The assessment and management of concussions.
- The assessment and management of injury and illness in defined populations (pediatric, geriatric, able bodied vs disabled).
- The assessment and management of arthritis (i.e. osteo, inflammatory, etc.).
- The assessment and management of sex-specific issues in SEM including REDS.
- The assessment and management of exercise in different environments (temperature and environmental extremes).
- The assessment and management of doping issues, nutrition, and fluid replacement.
- The provision of care for elite athletes.
- Event coverage including on-field intervention.
- Injury prevention.
- Pre-participation evaluation.
- Rehabilitation principles of injury (physiotherapy, bracing, taping, orthotics, surgical indications, etc.).

1 a) The following common problems are indicative of some, but not all MSK conditions:

- de Quervain's tenosynovitis
- Ligament injuries for all joints

- Mechanical vs discogenic back pain
- Meniscal / cartilage and labral injuries
- Tendonitis, tendinosis, apophysitis, bursitis and impingements
- Common fractures and dislocations
- Muscle strains, ruptures, contusions, and compartment syndrome
- Carpal tunnel syndrome
- Scaphoid fracture
- Scapholunate dissociation
- Mallet finger, jersey finger
- Finger sprains/dislocations
- Flexor tendinosis (medial epicondylitis)
- Extensor tendinosis (lateral epicondylitis)
- Biceps tendon rupture
- Rotator cuff tendonitis, tears & ruptures
- AC and SC joint sprains
- Impingement
- Thoracic outlet syndrome
- Burners and stingers
- Spondylolysis/spondylolisthesis
- Mechanical back/neck pain
- Discogenic back/neck pain
- Acute cervical spine injuries
- Hip labral tears
- Groin pull, sport hernias, osteitis pubis
- "Hip pointer"
- Iliotibial band friction syndrome
- Patellofemoral syndrome
- Knee ligamentous injury (ACL, PCL, MCL, LCL)
- Knee meniscal injury
- Hamstring strain/tear
- Pes anserine bursitis
- Patellar tendonitis
- Apophysitis - Osgood Schlatter, Severs, SLJ
- Growth plate injuries in pediatrics
- "Shin splints"
- Ankle sprains – lateral, medial and syndesmosis
- Ankle fractures
- Ankle tendinopathies
- Achilles tendon rupture
- Jone's fracture
- Lisfranc sprain and fracture
- Plantar fasciitis
- Metatarsal/tarsal stress fracture
- Metatarsalgia
- Freiberg's disease
- Morton's neuroma
- Turf toe
- Sesamoiditis

- Osteoarthritis
- Inflammatory arthritis

1 b) Injections & aspirations (corticosteroid, hyaluronic acid derivatives, PRP):

- **Soft tissue conditions**
  - Bursitis
  - Tendonitis or tendinosis
  - Rotator cuff impingement
  - ITB friction syndrome of the knee
  - Tennis Elbow & Golfer's elbow
  - De Quervain's tenosynovitis
  - Trigger points
  - Ganglion cysts
  - Neuromas
  - Entrapment syndromes (carpal tunnel syndrome)
  - Fasciitis
- **Joint conditions**
  - Effusion of unknown origin or suspected infection (only diagnostic)
  - Crystalloid arthropathies
  - Synovitis
  - Inflammatory arthritis
  - Early and advanced osteoarthritis

1 c) Specific sports medicine procedures:

- Brace fitting
- Splinting and taping
- Casting
- Basic orthotics
- Joint reductions
- Suturing
- Eye care
- Foreign body removal
- On field spinal care
- X-ray and imaging interpretation
- First Aid and Emergency care on the field

## II. Manager

### Family Medicine residents will:

1. Order appropriate and economical selection of diagnostic and screening tests.
2. Make referrals effectively.
3. Demonstrate understanding of roles of all health care providers in the team.
4. Demonstrate understanding of sport and exercise medicine care planning and policy-making.
5. Understand how to mobilize the Emergency Action Plan (EAP) team in an emergency situation.
6. Understand the principles of organization and the role of the team.

### III. Communicator

<b>Family Medicine Residents will be able to communicate effectively with patients, family members and members of the health care team</b>
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| <ol style="list-style-type: none"><li>1. Communicate effectively with patients and colleagues (both verbal and written).</li><li>2. Utilize non-verbal skills (expressive and receptive).</li><li>3. Adapt communication appropriately to a patients or colleague's unique needs.</li><li>4. Demonstrate attitudinal skills (ability to respectfully hear, understand and discuss an opinion, idea or value that may be different from their own).</li><li>5. Apply these communication skills to facilitate shared and informed decision-making.</li><li>6. Coordinate community resources.</li><li>7. Function within a team composed of members from various health care disciplines (physiotherapists, pedorthists, kinesiologists, athletic therapists, trainers, nurses, etc.).</li><li>8. Recognize situations where a specialist consultation is appropriate, and effectively communicate the purpose of the referral, the patient's clinical condition and pertinent previous history.</li><li>9. Provide emotional support to the patient and family in the sport medicine clinic and in the sporting environment.</li><li>10. Relate effectively to a wide variety of patients in a range of competition levels and athletic involvement. Recognize the impact of injury/illness in the context of patient need.</li><li>11. Act in the best interest of the patient's health, recognizing pressures from the patient, family, coaching staff, teammates and society (i.e. unregulated substances).</li></ol> |
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### IV. Collaborator

<b>Family Medicine Residents will be able to collaborate</b>
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| <ol style="list-style-type: none"><li>1. Work collaboratively in different models of care, particularly within a multidisciplinary framework.</li><li>2. Engage patients, ancillary sports team staff, consultant staff and families as active participants in their care.</li><li>3. Engage the parents, coaches, and teachers.</li><li>4. Understand and be knowledgeable regarding the availability of rehabilitation resources including physiotherapy and other ancillary services.</li></ol> |
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### V. Health Advocate

<b>Family Medicine Residents will be able to advocate for the health of patients</b>
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| <ol style="list-style-type: none"><li>1. Acting as an effective patient advocate with teams, players, employers and social service agencies.</li><li>2. Identify patients who are vulnerable or marginalized and assist them in issues (i.e. occupational issues, special diet application forms, etc.) that promote their health.</li><li>3. Identify patients at risk because of social, family or other health situations and provide patient-focused care</li><li>4. Be capable to teach and promote the value of physical activity for both fitness and health.</li></ol> |
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## **VI. Professional**

<b>Family Medicine Residents will have demonstrated professionalism</b>
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| <ol style="list-style-type: none"><li>1. Demonstrates day-to-day behaviour that assures that the resident is responsible, reliable, and trustworthy.</li><li>2. Engage in ethical standards of medicine.</li><li>3. Work respectfully within a multidisciplinary model of care.</li></ol> |
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## **VII. Scholar**

<b>The Family Medicine Resident will have demonstrated their scholarly proficiencies:</b>
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| <ol style="list-style-type: none"><li>1. Creates strategies for lifelong learning and continuing maintenance of professional competence.</li><li>2. Demonstrates self-directed learning based on reflective practice.</li><li>3. Access, critically evaluate and use medical information in sport and exercise medicine care decisions.</li></ol> |
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Developed by: Dr. Daniel Grushka, Dr. Lisa Fischer, & Sports Medicine Program Subcommittee  
Last reviewed: January 2022 by Dr. Graham Briscoe