New Hampshire Musculoskeletal Institute
ADVANCING KNOWLEDGE. ADVANCING CARE.

NHMI's Athletic Training Residency

RESIDENT HANDBOOK

CAATE
Commission on Accreditation of Athletic Training Education

Revised May 2021

TABLE OF CONTENTS

WELCOME 4

Residency Mission Statement 4

NHMI Executive Director, Medical Director & Residency Program Director 4

NHMI's Mission and Core Values 5

STIPEND & BENEFITS 6

HOUSING/UTILITY INFORMATION 7

Telephone Information 7

Local Grocery Stores 7

Parking 7

GRIEVANCE POLICY 10

EQUAL EMPLOYMENT OPPORTUNITY 11

MANCHESTER, NEW HAMPSHIRE: GENERAL INFORMATION 11

History and Demographics 11

Manchester Recreation 12

Emergency Numbers 12

In case of emergency, FIRE, POLICE AND AMBULANCE CAN BE REACHED BY DIALING 911. Amy can be reached at 603-943-5885 Dr. Vailas may be reached in emergencies at 603-320-3692 12

GENERAL RESPONSIBILITIES 12

NH Athletic Training Licensure 12

Immunizations 13

Criminal Records Check 13

Professional Dress and Conduct 13

Research Learning 14

PHYSICAL THERAPY CLINIC ASSIGNMENT 15

EDUCATIONAL GOALS FOR THE CLINICAL ROTATIONS 16

EDUCATIONAL GOALS FOR THE HIGH SCHOOL EXPERIENCE 34

INSTRUCTIONS FOR RECURRING ASSIGNMENTS 35

Grand Rounds Presentation Guidelines 35

Journal Club Guidelines 36

Creating Problem-Based Learning Case Studies Guidelines 44

Practice Brief Guidelines 45

Evidence Based Medicine Assessment Project Guidelines 47

AFFILIATING AGENCIES 48

APPENDIX 1: DIRECTIONS 49

APPENDIX 2: PHONE NUMBERS (area code 603) 56

APPENDIX 3: Resident Evaluation of Clinical Preceptor 58

APPENDIX 4: Resident Evaluation of Curriculum Activities & Teacher 60

APPENDIX 5: Resident Evaluation of AT Clinical Supervisor 62

APPENDIX 6: Resident Evaluation of Research Preceptor 64

WELCOME

Welcome to the New Hampshire Musculoskeletal Institute's Athletic Training Residency! This handbook is meant to serve as a guide and a resource during your stay in Manchester. It will provide information about the residency, housing and services, the local area, your responsibilities, agencies affiliated with the program, and the faculty. There is also a review of major assignments, such as working in the physical therapy clinic and learning to conduct simple research projects.

The goal of this residency is to provide you with an educational experience that will build a strong foundation for the practice of athletic training in any setting. The residency will also expose you to numerous allied health professions, which will allow you to make good decisions about your future should you decide to pursue further education. Exposure to research methods will help you understand its importance to the field of athletic training and prepare you to critically appraise clinical research and react appropriately. It is our hope that you will emerge from this residency as a well-rounded healthcare professional.

Residency Mission Statement

It is the mission of NHMI's Athletic Training Residency to cultivate exemplary healthcare providers by:

- refining and diversifying their clinical ability to detect and manage injuries, illnesses and conditions;
- improving understanding and competency in areas that epitomize exemplary healthcare practice (e.g., patient-centered care, interdisciplinary collaboration, professionalism, etc.);
- fostering confident professional networking through daily interaction with physicians and allied healthcare providers;
- imparting knowledge of and respect for scientific research and evidence-based practice;
- engaging in applied research opportunities; and
- cultivating autonomous critical thinking habits.

NHMI Executive Director, Medical Director & Residency Program Director

With these goals in mind, Laura Decoster, founding NHMI Executive Director, and James Vailas, Medical Director, have spent a great deal of time developing this program. Laura is a 1984 graduate of the University of New Hampshire and is a certified athletic trainer. During her career she has worked with a prep school, small colleges, public high schools, and physical therapy clinics. Laura retired from her role as NHMI Executive Director in 2020 but continues to serve as a Resident Research Preceptor. Dr. Vailas attended Dartmouth Medical School and then completed his residency at George Washington University. After GW, he completed the prestigious Kerlan-Jobe Orthopaedic Clinic as a Sports Medicine Fellow. Since 1990, he has

practiced orthopedic surgery/sports medicine in Manchester, his hometown. Amy Hollingworth, current NHMI Executive Director and Residency Program Director, will be your direct contact and advisor during the year. Amy graduated from Ithaca College in 1999. She is a certified athletic trainer, as well as a registered nurse and licensed massage therapist. She is an alumnus of the residency program and has worked in the high school, small college, semi-professional and physical therapy clinic settings throughout her career.

NHMI's Mission and Core Values

NHMI is dedicated to the advancement of knowledge in musculoskeletal care and sports medicine and to promoting and providing a safe sports environment for athletes.

To realize our Mission, we are guided by these principles:

Excellence
The Institute models excellence and strives to inspire it in others.

Collaboration
The Institute cultivates multidisciplinary collaboration.

Integrity
The activities of the Institute are guided by selfless commitment to honest productivity without personal gain.

STIPEND & BENEFITS

Item	Amount/Details
Monthly Stipend	$1,500.00: subject to federal income tax/withholding. NH has no state income or sales tax.
Vacation	A one-week vacation is planned into the program (around the winter holidays); You will receive the full stipend for that month.
Game Coverage Pay	Games and practices for which you provide on-site coverage *outside of regular working hours* are paid $30-$50 per event or at least $15.00 per hour.
Liability Coverage	During game and clinic work you will be included under NHMI's umbrella. If you do not already have one, NHMI will purchase an individual policy to cover you during your Residency activities.
Housing	See Housing section
MISC	Car (gas & regular maintenance: approx. $1500/year), NH Athletic Training License ($170), Food (Variable), Telephone (Variable)

Please familiarize yourself with the employee orientation information that is included and further information that will be provided on your arrival.

HOUSING/UTILITY INFORMATION

There are three addresses at this complex: 29 Kosciuszko Street is Apple/ExpressMED/The Fitness Network; 35 Kosciuszko Street is NHMI's mailing address; 39 Kosciuszko has four units, one of which is your apartment (# 4).

Your address is:

39 Kosciuszko Street, Apt 4
Manchester, NH 03101

There is no smoking allowed anywhere in the building.

Telephone Information

As you know, your housing, electricity, cable and heat are provided to you as part of the Residency. The Residency does not include telephone. If you wish to have these services, you should contact the utilities directly. Telephone service is provided by:

FairPoint or Comcast

Local Grocery Stores

Food is not included with the free apartment. There are numerous supermarket chains in and around Manchester. THE CLOSEST ARE MARKET BASKET ON ELM STREET AND HANNAFORD ON HANOVER STREET. MARKET BASKET: GO WEST ON BRIDGE STREET TO ELM STREET, TURN LEFT. FOLLOW ELM STREET SOUTH THROUGH DOWNTOWN UNTIL YOU GET TO **460 ELM STREET** (IMMEDIATELY AFTER AUBURN STREET). HANNAFORD: GO EAST ON BRIDGE STREET TO MAMMOTH ROAD, TURN RIGHT. AT YOUR NEXT LIGHT, TURN LEFT -- SHOPPING CENTER ON YOUR RIGHT: **859 HANOVER STREET**.

Parking

- Each Resident will be assigned one parking pass for the lot in the rear of the building. Be sure to hang it from the car rearview window as instructed. Apple does tow actively from the parking lot! During the weekdays, please try to park at the top of the hill; many visitors to this building are disabled and have difficulty walking long distances. Nights and weekends, you may park closer to the building. WINTER: The plow guy might call to warn you if you need to move; but do not count on this! If there's any chance of snow, move your car into the upper right corner of the parking lot. If the plow guy needs you to move out of the parking lot, you may park in the Victory Parking Garage located on the corner of Amherst & Chestnut Streets. Snow emergency use of this garage is permitted from 8:00pm to 8:00am only. However, there is a parking fee of $.75 per hour outside of snow emergency times. If

this garage is full, an alternate location that may be used during snow emergencies is the Pearl Street Parking lot located on Orange Street between Pearl and Chestnut Streets. Same hours and charges apply. Parking information will be reviewed during orientation.

ADMISSION/COMPLETION CRITERIA & LEAVE POLICY

- ADMISSION CRITERIA:
    - NH State Athletic Training License
    - Physical ability to perform duties associated with the practice of athletic training
    - Valid driver's license and use of a car are necessary to experience the whole program.

- COMPLETION CRITERIA:
    - Barring disciplinary action, Residents will be allowed to finish the NHMI AT Residency curriculum within the appointed year regardless of time missed as approved by RPD. In order to receive NATA certificate, criteria detailed below must be met.
    - TO RECEIVE NATA CERTIFICATE:
        - Must have no more than 4 RPD-approved unscheduled weeks off. Work missed during the year must be made up; RPD will assist resident in determining how, and in what time frame, work can be made up.
        - Complete (or make up) all rotations as assigned while remaining in good standing (i.e., without disciplinary action).
            - Completed = 80% of available time with clinical instructors and preceptors
            - All quizzes must be completed with 80% or better
            - If unable to attend rotation, completion of RPD assigned make-up substituted work is required
        - Satisfactory completion of required projects (over the year)
            - All reflections/evaluations of clinical instructors submitted (if resident was able to attend rotation)
            - At least 90% of Grand rounds, PBL, Journal club assignments completed
            - Complete and present Capstone
        - Must fulfill clinical duties as assigned with no more than 4 RPD-approved (RPD) unscheduled weeks off.
        - Must complete the above while maintaining good standing in the program and remain in compliance with the BOC Code of Ethics.

- REAPPLICATION AFTER WITHDRAWAL: If a resident has been selected for participation in the residency but because of RPD-approved reason/s is unable to complete the program, reapplication will be considered; selection is not guaranteed.

- HOUSING:
    - Availability of housing is dependent on maintenance of good standing in the program.
    - Disciplinary actions that result in program termination also include housing termination.
    - Within the appointed year, residents who are granted approved leave may remain in program housing until the residency contract end date.
    - Residents who withdraw (or are terminated) from the program are required to vacate housing within one week of notice of withdrawal or termination.

- TERMINATION:
    - Any termination (i.e., at any point in time) precludes receipt of NATA certificate.
    - Examples of conduct that might warrant termination include but are not limited to:
        - Suspension or revocation of clinical license
        - Gross neglect of clinical duties
        - Gross neglect or misconduct around educational program components
        - Illegal activities
        - Failure to uphold Board of Certification and NH License Codes of Conduct
        - Unexplained absence or failure to return from approved leave at the expected time without applying for extension
    - Termination or other disciplinary actions will be considered by the RPD, NHMI President and Preceptors.
    - Residents who are terminated from the program are required to vacate housing within one week of notice of termination.

- PROCEDURE FOR REQUESTING PROGRAM LEAVE:
    - The resident must submit in writing, the request for leave of absence. The letter should be addressed to the RPD and must contain the following information:
        - The purpose of the leave of absence.
        - Expected period of the leave.
        - A date of expected return must be stated in the letter. This date can be adjusted either with the resident returning earlier or later. If an extension is needed, the resident must write a new letter indicating the new date of return.

        - A statement acknowledging leave that results in more than 4 weeks' absence from the residency program will preclude receipt of NATA certificate.
        - For medical leave, include a physician statement confirming the need for leave. (A physician's note clearing Resident for return to duty will be required.)
    - Examples of Acceptable Reasons for Leave
        - The resident has a serious health condition that makes him or her unable to perform the essential functions of his or her position.
        - The resident must care for his or her child/spouse/domestic partner/parent where that child/spouse/domestic partner/parent has a serious health condition.

- EMPLOYMENT LEAVE POLICIES (e.g., sick leave, family leave, etc…as related to pay and benefits): Please refer to employment handbook.

GRIEVANCE POLICY

Definition
A complaint or grievance is a problem that does not seem able to be resolved between the person or persons directly involved. A grievance can be about anything done, or not done, which you feel affects you unfairly or unjustly. A grievance can also be about discrimination, harassment, or a decision or behavior which you think is unfair, unjust or upsetting.

Policy
NHMI acknowledges that problems can arise which may sometimes cause you to feel aggrieved.

NHMI aims to foster good relations amongst Residents and between Residents and faculty and administration. This policy outlines procedures to be followed by Residents, volunteers, faculty or clients if they have a complaint. NHMI fully supports the rights of people to express, or have expressed on their behalf, grievances on any subject relating to the organization and/or people of the organization. People or entities have a right to express a grievance, have a satisfactory hearing of that grievance and be assisted to work towards resolution. NHMI is committed to viewing grievances and the resolution of them as a learning process whereby we can develop better practice both towards the community, our clients, our Residents our faculty and our volunteers. Grievances may be lodged by an individual or by a group of individuals. All discussion of grievances will be confined to those who can assist their resolution. No party shall seek to escalate or inflame an issue or grievance but shall seek speedy and effective resolution under this policy. Any form of complaint or grievance should, if possible be resolved quickly at the lowest level to avoid any unnecessary escalation or the need for Residents or faculty to go outside the organization for assistance.

Steps to Complain

Approach the person concerned

Make every attempt to solve the problem with the person involved.

Approach the Residency Program Director

The RPD is responsible for investigating a complaint and recommending the appropriate response or action. If the complaint involves the RPD, the executive director will investigate and recommend the appropriate response or action. If the complaint is about a specific individual, the RPD's (or executive director, if appropriate) response will include:

• Informing the person about whom the complaint is made and seeking their views and perspective

• Informing the individual(s) of the outcome of the complaint within 5 working days.

EQUAL EMPLOYMENT OPPORTUNITY

In order to provide equal employment and advancement opportunities to all individuals, employment decisions at NHMI will be based on merit, qualifications, and abilities. NHMI does not discriminate in employment opportunities or practices on the basis of race, color, religion, sex, national origin, age, disability, genetic information, citizenship status, veteran status, sexual orientation or marital status or any other characteristic protected by law.

This policy covers all aspects of employment, including selection, job assignment, compensation, discipline, termination, and access to benefits and training.

If you have a question or concern about any type of discrimination in the workplace, you are encouraged to bring the issue to the attention of the Executive Director. At NHMI, be assured that you can raise concerns and make reports without fear of reprisal. Further, anyone found to be engaging in any type of unlawful discrimination will be subject to disciplinary action, up to and including termination of employment.

MANCHESTER, NEW HAMPSHIRE: GENERAL INFORMATION

History and Demographics

Manchester is centrally located in the southern part of the state, directly on the Merrimack River. Ethnically, the city is a mixing pot with large populations of people of French Canadian and Greek descent well established and newer groups from all over the world. Manchester is 20 minutes south of the state capital, Concord, and 20 minutes north of the state's second largest city, Nashua. One hour south is Boston, an hour east is the Atlantic Ocean, one hour north is the Lakes Region at the southern edge of the White Mountains, and an hour west is the Vermont line. Greater Manchester has more than 100,000 people, making it the largest city in the state.

Despite its urban nature, Manchester is surrounded by forest and a rural environment can be found, in virtually any direction, within a 10-minute drive from the city limits.

The Merrimack River divides the city into the "east side" and the "west side" and is traversed by four bridges. The state's major north-south highway, Interstate 93, loops around the eastern edge of the city, while 293 cuts right through the heart of the city, following the course of the river. The river has always been the focal point of Manchester, originally providing power for what was the world's largest textile industry in the late 1800's. A pictorial history of the city can be viewed at the Manchester Historic Association, 129 Amherst Street.

The educational programs of Manchester are extensive and include three public high schools, two private high schools, a technical college, two business colleges and four liberal arts colleges. The three largest branches of the University System of New Hampshire are within an hour's drive, as are many Boston area schools, such as Harvard, Boston University, Boston College and Northeastern University. Many of these schools compete in athletics at a national level, providing considerable opportunity to watch great sports contests. In addition, the NH Fisher Cats (Toronto AA team) play in Manchester. Boston's professional sports teams are also an easy drive away.

Manchester Recreation

Recreational opportunities abound. Within the city, there is shopping, billiards, golf, miniature golf, theater, musical and other touring acts, movies and sporting events. Cycling is popular, though there are no official bike paths in the city. Hiking, camping and climbing are available for all levels at various distances from the city.

Emergency Numbers

In case of emergency, FIRE, POLICE AND AMBULANCE CAN BE REACHED BY DIALING 911. Amy can be reached at 603-943-5885 Dr. Vailas may be reached in emergencies at 603-320-3692.

GENERAL RESPONSIBILITIES

NH Athletic Training Licensure

You will be required to obtain NH licensed athletic trainer status immediately – usually before your first day of work. You must contact the state Office of Allied Health at 603-271-8389 or visit https://www.oplc.nh.gov/athletic-trainers-governing-board as soon as possible to receive application materials. The licensing process can be lengthy, so you must attend to this early AND often until you have your license in hand.

Immunizations

Prior to or upon arrival, you must have a physical (within 5 years), drug screening and 2 TB tests as required by NH law for healthcare workers. Complete immunization records (with proof of titers) must be furnished as most healthcare facilities require those records before you can observe.

Criminal Records Check

Many hospitals and other healthcare facilities require observers to submit results of a criminal records check. NHMI will provide directions for you to complete the background check and will pay the fee; results must be received prior to your first rotation.

Professional Dress and Conduct

The healthcare professionals involved in this Residency are volunteering their time and facilities. You must keep this in mind and remember to treat them with due respect and appreciation and to dress and act professionally at all times. Unless otherwise directed, you should address people by their professional titles. Appropriate dress will vary from rotation to rotation, and will be described to you. However, clothing should always be clean, comfortable and in good repair (i.e., no holes, stains, etc...) You should be punctual at all appointments and assignments. Remember that you are representing the Institute and yourself.

All rotations are designed as observational experiences, and unless you are specifically asked to take action or make comments during the observation, you should remain quiet. It is expected that you will have and ask questions of the clinical instructors, but it is usually most appropriate for you to ask between patients or after a clinic session. If individual instructors do not tell you when to ask, please ask them before beginning the observation.

Remember that maintaining patient confidentiality is paramount. During this Residency, and at all times in your career, you should avoid (AT ALL COSTS) discussing a patient's medical condition with anyone not directly involved with his care. For example, it is okay to discuss the case with the treating physician, but you should not discuss it with your friends, family, other patients or any reporters. In professional meetings or settings, it is acceptable to present *anonymous* cases for the sake of continuing education or professional advancement.

<u>This Residency will be most useful to you if you take initiative to learn.</u> A year-long reflection assignment (Capstone assignment) is designed to help you make the most of the experience. You may find it helpful to make notes during observational periods and follow up by finding reading materials on topics of interest. It need not be a lengthy project - just enough to familiarize yourself with the subject. You should always feel free to ask Amy or Dr. Vailas for information or direction!

Research Learning

You will learn about conducting research via didactic sessions with Laura/Amy/Nora, individual study and completion of assignments and recommended readings. Much of the learning will be hands-on; your research project for the year will be decided between you and NHMI and the research preceptors. You will complete as much as possible on the project during the year. We hope that will include choosing a topic, searching for related previous research, creating a timetable, designing the study, carrying out the research and writing a paper detailing the findings. It is our goal that Resident research be submitted to professional meetings and/or journals for publication. As an incentive, the Institute will cover some related expenses for any Resident whose work is accepted.

SAFE SPORTS NETWORK

You will participate in all the programs offered by Safe Sports Network including baseline concussion testing, youth sports safety week, student ambassador program, , education outreach and provision of athletic training services in and out of the clinic. Safe Sports is a highly respected community service, and it is key to our sports medicine community outreach. A significant amount of your time will be devoted to evaluating student athletes as they present to the injury evaluation clinic or in providing coverage at local high schools.

The injury evaluation clinic is open Monday through Thursday, 3-6 pm and Fridays 3-4pm. The clinic is also open on Saturdays by appointment only between the hours of 9-11am. Usually, an athlete is evaluated and may be seen for actual treatments two or three times. More commonly, a home exercise program is outlined for the athlete, and a re-evaluation is scheduled. You will be asked to manage record keeping tasks for athletes treated by the Safe Sports Network (in both the injury evaluation clinic and at the high school). On days that you are not in the clinic (you will alternate with the other resident), you will provide athletic training coverage at a local high school. You will be called upon to assist with coverage at other high schools, state tournaments and other local events on occasion.

When you are out of the clinic providing coverage, you must wear an NHMI/SSN shirt and nametag. Feel free to wear warm and/or waterproof outerwear as needed, but always clip your nametag on the outermost layer.

PHYSICAL THERAPY CLINIC ASSIGNMENT

Coverage of Safe Sports will average approximately 20 hours per week over the year. Your time in the clinic allows you to observe physical therapy treatments, and in some cases, will include assisting physical therapists and physical therapist assistants with the delivery of rehabilitative services to patients. The amount of responsibility you will be given in the clinical setting will depend to a great extent on the volume of Safe Sports drop-ins (busy in the fall, less so during the rest of the year). Because the staff is usually very busy, your initiative and apparent interest will be factors here. It is up to you to use this time to pick the brains of the physical therapists to gain valuable knowledge related to post-injury and post-operative care. At the high school, you will act as the school's co-head athletic trainer, providing injury prevention, assessment, treatment, rehabilitation, and referral as needed.

EDUCATIONAL GOALS FOR THE CLINICAL ROTATIONS

AMBULANCE

American Medical Response, 35 Pine St, Manchester, NH. Various contacts.

GOAL: The Resident will spend 20 hours over one week with the ambulance crew.

OBJECTIVES:
1. Gain exposure to emergency life support procedures and equipment in the field.
2. As the situations arise, receive education with regard to recognition and treatment of significant medical and trauma emergencies, especially subtle conditions or conditions which may affect athletes, for example: asthma, anaphylaxis, diabetic disturbances and shock.
3. Observe practice and importance of monitoring vital signs and the relevance of these signs to the patient's morbidity.
4. Become familiar with standard practice regarding orthopedic injuries seen in an emergency setting.

Specific Rotation Objectives:
After completion of the ambulance rotation the resident will be able to:

1. Describe the education required to become a paramedic (EMT-P), EMT-I, EMT-B and First Responder.
2. Identify the major differences in training and skills between the three levels of EMT.
3. Define and describe the Emergency Medical Services system.
4. Describe the development of emergency medical response systems over history including present-day 911 systems.
5. Understand EMS job requirements that may cause significant stress.
6. Identify normal and abnormal basic vital signs based on their rate/level, rhythm and quality.
7. Describe auscultation and palpation of blood pressure.
8. Understand how professional EMTs “categorize” calls and how they may respond to on-field athletic emergencies. Understand how the “usual” athletic emergency fits into the scope of an EMT’s day.
9. Describe and recognize the process of hypovolemic shock.
10. Define decompensated shock.
11. Describe the epidemiology of mental illness and understand its frequency in the EMS environment.
12. Describe the epidemiology of substance abuse and understand its frequency in the EMS environment.
13. Identify signs and symptoms of common mental illnesses, including depression, schizophrenia, and bipolar disorder.
14. Identify signs and symptoms of the abuse of various substances including heroin, alcohol, inhalants, prescription drugs and anabolic steroids.

CHIROPRACTIC:

Bruck, Pratt & Geary, Primary contact: Robin Bruck, DC, 765 S. Main St, Manchester, NH

GOAL: The Resident will spend 20 hours over one week observing the administration of chiropractic medicine.

OBJECTIVES:

1. Understand chiropractic principles and philosophy.
2. Improved understanding of spinal anatomy.
3. Understand indications and contraindications for chiropractic treatments, and the role of the chiropractor in the athletically active patient with musculoskeletal disorders.

Specific Rotation Objectives:

After completion of the chiropractic rotation the resident will be able to:

1. Describe the education required to become a chiropractor.
2. Use appropriate chiropractic medical terms appropriately when interacting with other medical professionals
3. Compare and contrast the chiropractic philosophy of medicine with the philosophy of Western/conventional medicine.
4. Discuss indications and contraindications for chiropractic care.
5. Counsel athletes about the benefits of chiropractic care for appropriate conditions.
6. Describe what an athlete might expect during chiropractic treatment.
7. Describe potential benefits, side effects and risks associated with chiropractic treatment.
8. Defend arguments for and against chiropractic care for common conditions such as chronic pain.

DERMATOLOGY:

Robert Posnick, MD, 17 Prospect St, Suite N301, Nashua, NH 03060

GOAL: The Resident will spend 20 hours over one week observing the practice of dermatology.
OBJECTIVES:

1. Improved understanding, recognition and treatment of common skin conditions such as acne, fungal and viral infections, and other rashes.
2. Improved understanding of proper care of skin injuries such as blisters, burns, abrasions, foreign bodies, lacerations, and local infections associated with these conditions.
3. Improved understanding of the usefulness/application of over-the-counter skin remedies and improved knowledge of the prescription drugs commonly used in the treatment of skin conditions.
4. Improved ability to determine which skin conditions should be referred for further medical evaluation.

Specific Rotation Objectives:
After completion of the dermatology rotation the resident will be able to:

1. Describe the education required to become a dermatologist.
2. Use appropriate dermatology medical terms appropriately when interacting with medical professionals.
3. List and describe characteristics of dermatological conditions that warrant emergent/urgent (e.g., potentially cancerous lesions, poisonous bites or stings) physician referral.
4. Explain immune system response to infection and describe skin-related signs/symptoms of immune response.
5. Identify, describe and differentiate among varied conditions that require referral to a dermatologist (e.g., severe acne, impetigo, fungal infections, herpes infections, warts, dermatitis, psoriasis, MRSA).
6. Classify common skin infections according to cause (bacterial, fungal, viral).
7. Describe OTC and prescription medication approaches to management of common skin conditions (e.g. severe acne, impetigo, fungal infections, herpes infections, warts, dermatitis, psoriasis, MRSA) and the efficacy of each approach.
8. Design a skin infection recognition and prevention flyer for athletes participating in wrestling, football and other sports where physical contact is expected.
9. Locate governing body (e.g., NCAA, NFHS) regulations for participation with skin infections appropriate to specific populations.
10. Instruct athletes in the prevention of sunburn.
11. Define and recognize the ABCD skin characteristics of potential melanoma.
12. Describe the various causes and management of hives.
13. Describe the indications and advantages for the use of occlusive dressings in wound care.
14. Describe the contraindications for the use of occlusive dressings in wound care.
15. Define MRSA and explain the clinical course of MRSA infection.
16. List 6 risk factors for CA-MRSA. List 4 risk factors for HA-MRSA.
17. Describe the skin presentations that might indicate a drug-resistant bacterial infection.
18. Develop and institute MRSA prevention strategies in a clinical work-setting.

EAR, NOSE, THROAT:

Jeffrey Byer, MD, 130 Tarrytown Rd, Manchester

GOAL: The Resident will spend 40 hours over two weeks observing the clinical and surgical practice of the ENT specialist.

OBJECTIVES:

1. Improved understanding of anatomy and physiology, especially as related to common infections and other disorders, and how they affect athletes.
2. Improved ability to recognize and differentiate severity of illness. Improved decision-making capacity regarding an ill athlete's ability to continue being active during illness.
3. Improved history taking and clinical evaluation, including ability to assess need for referral to physician.

Specific Rotation Objectives:

After completion of the ear, nose, throat rotation the resident will be able to:

1. Describe the education required to become an otolaryngologist.
2. Use appropriate otolaryngology medical terms when interacting with other medical professionals.
3. List conditions (or describe characteristics of) otolaryngological conditions that warrant emergent/urgent physician referral.
4. Identify the anatomical structures of the ear including the external, middle and inner ear structures and the vestibular system.
5. Explain how the auditory and vestibular systems work.
6. Identify anatomical structures of the nose and sinuses.
7. Explain the roles of the nose and sinuses within the respiratory system.
8. Identify and describe injuries/conditions of the trachea and larynx that are likely to affect athletes.
9. Review guidelines for athletic equipment that protects the ears, nose, and throat, then recommend appropriate protective equipment for various athletic teams and for any special-needs athletes on those teams.
10. Recognize the signs and symptoms of athletes that present with a deviated septum.
11. Recognize the signs and symptoms of varied ear infections to distinguish between athletes that present with otitis media or otitis externa.
12. Counsel athletes with traumatic and chronic ear, nose, and throat injuries to calm fears and guide them to appropriate treatment.
13. Differentiate between anterior and posterior epistaxis causes, presentation and management options.
14. Recognize headache (tension, migraine, cluster, facial/sinus, etc…) classification based on clinical presentation and be familiar with prevention and treatment strategies.
15. Differentiate among the common cold, flu and sinusitis by describing signs and symptoms and treatment options.

EMERGENCY DEPARTMENT

(ED physicians – schedule coordinated by Craig Upperman, (603) 227-7000 x 3862, cupperman@crhc.org); Concord Hospital Emergency Department, 250 Pleasant Street, Concord.

GOAL: The resident will spend 40 hours over 5 Sundays in the emergency room.

OBJECTIVES:

1. Gain exposure to emergency life support procedures and equipment.
2. As the situations arise, receive education with regards to recognition and treatment of significant medical and trauma emergencies, especially subtle conditions or conditions which may affect athletes, for example: asthma, anaphylaxis, diabetic disturbances.
3. Observe practice and importance of monitoring vital signs and the relevance of these signs to the patient's morbidity.
4. Become familiar with standard practice regarding orthopedic injuries seen in an emergency room.

Specific Rotation Objectives:

After completion of the emergency department rotation the resident will be able to:

1. Describe the various providers employed in the emergency department and describe the education required for each field.
2. Understand the role and process of triage in managing emergency department patients.
3. Demonstrate improved understanding of the emergent versus urgent conditions.
4. Describe drug-seeking behaviors sometimes exhibited by patients.
5. Understand and describe suicide risk factors and signs/symptoms.

INDUSTRIAL ATHLETIC TRAINING SETTING

Stephanie Stiles, ATC, Fit for Work (Various Locations)

GOAL: The Resident will spend 20 hours over one week observing in the Industrial Athletic Training Setting.

OBJECTIVES:

1. Understand the design, implementation and measurement of injury prevention, injury reduction and return to work programs.
2. Understand interventions and ergonomics in preventing musculoskeletal injuries.
3. Understand risks and behaviors associated with musculoskeletal disorders in the industrial setting.
4. Further understand Occupational Safety and Health Administration (OSHA) Standards.
5. 4. Become familiar with standard practice regarding orthopedic injuries seen in an emergency room.

Specific Rotation Objectives:

After completion of the Industrial rotation, the resident will be able to:

1. Describe the education and training required to become an industrial Athletic Trainer.
2. Describe the various settings/populations industrial Athletic Trainers may work.
3. Use appropriate industrial/business setting terms when interacting with other medical professionals.
4. Describe early intervention and injury prevention programs.
5. Discuss the benefits of implementing Fit for Work Programs including reduced Worker's compensation costs, claims, injuries, etc.
6. Describe kinesiology and ergonomics, and their roles in injury etiology and prevention.
7. Describe an ergonomic assessment of both static and dynamic activities and how to interpret the results of this testing.
8. Describe the administration and purpose of the RULA and REBA postural risk assessments.
9. Describe the three leading indicators to injury.
10. Discuss the correlation between fear and pain.
11. Discuss how to properly fit an employee with personal protective equipment (PPE), tool belt, climbers, and other donned equipment or tools.
12. Understand the development of specific job descriptions and the performance of functional capacity evaluations.

NEUROLOGY

Maureen Hughes, MD, Concord Hospital, Concord

GOAL: The resident will spend 40 hours over two weeks observing the clinical practice of the neurologist.

OBJECTIVES:

1. Improved understanding of anatomy and physiology, especially as related to common neurological disorders, and how they affect athletes.
2. Improved history taking and clinical neurologic examination, including ability to assess need for referral to physician.
3. Understand the concept of "localizing" neurologic signs and symptoms.

Specific Rotation Objectives:

After completion of the neurology rotation the resident will be able to:

1. Describe the education required to become a neurologist.
2. Use appropriate neurological medical terms when interacting with other medical professionals.
3. List conditions (or describe characteristics of) neurological conditions that warrant emergent/urgent physician referral.
4. Demonstrate an understanding of basic neuroanatomy.
5. Describe presentation and natural history of neurological diseases such as multiple sclerosis, brain tumor.
6. Describe various causes of acute and chronic headaches and their management.
7. Describe the presentation and management of vertigo.
8. Assess focal or generalized weakness.

OPHTHALMOLOGY:

Christina Munroe, MD; NH Eye Associates, 1415 Elm Street, Manchester, NH 03101
GOAL: The Resident will spend 20 hours over one week gaining exposure to the practice of ophthalmology.

OBJECTIVES:
1. Improved understanding of functional eye anatomy and physiology.
2. Observe/understand regular eye testing techniques, sports vision testing and emergency intervention for common eye injuries.
3. Improved understanding of corrective devices such as glasses and contact lenses.
4. Observe office and/or surgical procedures related to eye health.

Specific Rotation Objectives:
After completion of the ophthalmology rotation the resident will be able to:

1. Describe the education required to become an ophthalmologist.
2. Use ophthalmologic medical terms appropriately when interacting with other medical professionals.
3. List conditions (or describe characteristics of) ophthalmologic conditions that warrant emergent/urgent physician referral.
4. Identify and describe major components of the ocular system including eye and neurological components.
5. Explain the process of vision, that is how the eye and nervous system work together to allow sight.
6. Plan and recommend appropriate protective eye equipment for their various athletic teams and for any special-needs athletes on those teams.
7. Compare and contrast educational and training requirements associated with ophthalmology, optometry and optician practice.
8. Differentiate eye injury signs and symptoms requiring physician referral from those that can be treated safely and effectively by the ATC.
9. Describe to injured athletes what treatment they can expect from physicians when their injury requires referral.
10. Compare and contrast etiology, presentation, vision consequences and available treatments for glaucoma, cataracts and diabetes-related retinopathy.
11. Compare, assess appropriateness and recommend corrective lenses for their athletes.
12. Apply their knowledge of eye care to explain to athletes the appropriate contact lens selection and contact lens maintenance.
13. Describe patient selection and expectations associated with the LASIK vision surgery procedure and counsel athletes who are considering the procedure.

ORTHOPEDICS:

Scott Evans, PA-C, Orthopaedics/Sports Medicine, NHOC, 9 Washington Place, Bedford
Kame McAuliffe, PA-C, Orthopaedics/Spine, NHOC, 9 Washington Place, Bedford
Robert Heaps, MD; Orthopaedic Surgery/Hand Surgeon, NHOC, - 17 Riverside St, Nashua
Heather Killie, MD; Orthopaedic Surgery/Sports Medicine, NHOC - 17 Riverside St, Nashua
Marc Michaud, MD, Orthopaedic Surgery/Foot & Ankle, NHOC, 9 Washington Place, Bedford
James C. Vailas, MD; Orthopaedic Surgery/Sports Medicine, NHOC, 9 Washington Pl, Bedford
Edward A. Sirlin III, MD; Orthopaedic Trauma Surgery, Southern New Hampshire Health
Gregory Soghikian, MD; Orthopaedic Surgery/Sports Medicine, NHOC, 9 Washington Place, Bedford
Matthew Wilkening, MD; Orthopaedic Surgery/Spine Specialist, NHOC, 9 Washington Place, Bedford

GOAL: The Resident will be exposed to various orthopedic surgeons, in clinical and surgical settings, for 18 weeks over this one-year Residency.

OBJECTIVES (Orthopedic rotations):
1. The clinical observation is designed to provide exposure to orthopedic history-taking, clinical examination, x-rays and special radiological tests, NSAIDs, pain drugs, casting and bracing.
2. The surgical portion of this rotation should increase their understanding of normal and pathological anatomy, common surgical procedures, correlation of clinical and surgical findings, surgical trauma, universal precautions and sterile technique.
3. Observe and understand the interaction of orthopedic surgeons with other allied health professionals.

Specific Rotation Objectives:
After completion of the orthopedics rotations the resident will be able to:

1. Describe the education required to become an orthopedic surgeon. Include specific advanced training required for specialty areas within orthopedic surgery.
2. Use appropriate orthopedic medical terms appropriately when interacting with other medical professionals.
3. Describe characteristics of orthopedic conditions that warrant emergent/urgent physician referral.
4. Describe the risks and benefits associated with ACL reconstruction for athletes.
5. Compare and contrast graft materials and approaches to ACL reconstruction.
6. Counsel athletes and their families regarding management of ACL deficiency.
7. Describe the immediate and extended postop course after ACL reconstruction, distinguishing between the postop course for ACL reconstruction with and without meniscal repair.
8. Provide a potential patient with a detailed description of the arthroscopic procedures for the repair of knee menisci and description of expected postop course and outcomes.
9. Explain the anatomical and physiological importance of chondral cartilage.
10. Identify various procedures for surgical management of chondral injuries in the knee.
11. Compare and contrast various procedures for surgical management of chondral injuries, pointing out the risks and benefits of each procedure. Describe expected postop course and outcome after chondral procedures.
12. Differentiate between the history, clinical presentation and management of chronic and acute shoulder instability.

13. Define internal and external shoulder impingement.
14. Describe the typical clinical presentation and expected course of treatment for both internal and external shoulder impingement.
15. Describe surgical management of rotator cuff tears including management differences associated with the size and complexity of the tear and the age and demands of the patient. Describe expected postop course and outcome.
16. Identify varied procedures for the surgical management of shoulder instability and describe expected postop course and outcome.
17. Explain the risks/benefits of each procedure for surgical management of shoulder instability.
18. Describe and explain the importance of appropriate scapular mechanics.
19. Describe rehabilitation approaches and develop appropriate treatment plans for restoring scapular mechanics.
20. Recognize the signs and symptoms of lower extremity growth plate injuries in youth athletes.
21. Create appropriate treatment plans that physicians may use to manage growth plate injuries.
22. Explain the risks, benefits, indications and contraindications concerning the use of corticosteroid injections to alleviate joint pain.
23. Differentiate between finger, hand and wrist conditions that require immediate referral and those that can be managed in-house.
24. Describe the natural history and clinical presentation of skier's thumb (ulnar collateral ligament sprain).
25. Describe the natural history and clinical presentation of rugger jersey finger (tendon avulsion of the ring finger).
26. Differentiate between common causes of wrist pain (e.g., scaphoid, TFCC).
27. Describe the natural history and clinical presentation of common fractures and tendon injuries of the hand.
28. Describe the natural history and clinical presentation of spondylolysis.
29. Describe appropriate treatment and rehabilitation plans for an athlete with spondylolysis, including criteria for return to play.
30. Describe education required to become an orthopaedic spine surgeon.
31. Use spine surgery terms appropriately when interacting with other medical professionals.
32. Describe spinal conditions that would require emergent/urgent physician referral.
33. Demonstrate an understanding of basic peripheral neuroanatomy and spine-specific physical exam
34. Be familiar with sports-related spine problems such as spine trauma and spinal cord injury, spondylolysis, spondylolistheis, and disc herniation.
35. (Trauma Surgery) Be able to recognize several Orthopaedic Emergencies/Urgencies (example: Compartment syndrome, dislocated joint, open fractures) & understand treatment options for these conditions.
36. (Trauma Surgery) Understand what can be done as first responders to minimize adverse events & improve Orthopaedic Trauma/Fracture outcomes.
37. (Trauma Surgery) Be able to describe certain characteristics of fractures and/or dislocations when discussing with Orthopaedic Surgeon to improve communication and timely treatment decisions.

PODIATRY:

N. Jake Summers, DPM, 100 Hitchcock Way, Manchester NH (Department of Orthopedics)
GOAL: The Resident will spend 20 hours over one week observing the administration of podiatric medicine.

OBJECTIVES:

1. Observe gait evaluation.
2. Improved understanding of functional anatomy of the foot.
3. Understand skin and toenail care and protection.
4. Observe/understand orthotic evaluation and prescription.
5. Understand shoe fitting, shoe modification, choosing the right shoe for specific purposes.
6. Observe podiatric surgery and other podiatric care relevant to the athletically active patient.

Specific Rotation Objectives
After completion of the podiatry rotation the Resident will be able to:

1. Describe the education required to become a podiatrist.
2. Use podiatric medical terms appropriately when interacting with other medical professionals.
3. List conditions (or describe characteristics of) podiatric conditions that warrant emergent/urgent physician referral.
4. Distinguish among presentations of equinus, cavus, varus, and valgus foot deformities/fixations.
5. Perform a standing postural analysis and describe observed malalignment(s) from the sagittal and frontal views.
6. Perform a real-time gait analysis, comparing observed pelvic, hip, knee, ankle, and foot motions with expected normal motions of these joints during gait.
7. Explain the influence of foot arch types upon more proximal lower extremity mechanics.
8. Describe appropriate management of blisters, calluses, corns, and ingrown toenails.
9. Instruct athletes in preventions of potentially reoccurring dermatological foot conditions (e.g., blisters, calluses, corns, ingrown toenails, etc.).
10. Identify and describe various causes of heel and plantar pain.
11. Explain surgical and nonsurgical options for management of heel and plantar pain.
12. Distinguish among the 6 types of critical stress fractures by identifying the most salient features of each.
13. Describe the management of all types of stress fractures.
14. Differentiate among Lisfranc fractures, high ankle sprains and regular ankle sprains, by describing differences in signs, symptoms and treatment.
15. Explain how to distinguish between Sever's Disease and Achilles tendonitis.
16. Describe the risks for and management of Sever's Disease.

PRIMARY CARE:

Brian Claussen, MD, Family Physicians of Manchester, 57 Webster St, Manchester
Mark Myers, MD, Pediatric Health Associates – Bedford, 25 Leavy Rd, Bedford
Elana Bannerman, MD, Southern NH Health, 300 Derry Rd, Hudson, NH

GOAL: The Resident will spend 120 hours over three weeks with each clinician (total of 6 weeks) observing the primary care practice.

OBJECTIVES:

1. Improved understanding of anatomy and physiology, especially as related to common infections and other disorders, and how they affect athletes.
2. Improved ability to recognize and differentiate severity of illness. Improved decision-making capacity regarding an ill athlete's ability to continue being active during illness.
3. Improved history taking and clinical evaluation, including ability to assess need for referral to physician.

Specific Rotation Objectives: After completion of the primary care rotation the resident will be able to:

1. Describe the education required to become a primary care physician and physician assistant.
2. Use primary care/family practice medical terms appropriately when interacting with other medical professionals.
3. List conditions (or describe characteristics of) conditions (e.g., diabetic emergencies) that warrant emergent/urgent physician referral.
4. Recognize signs and symptoms associated with systemic-illness emergencies such as meningococcemia and Eastern equine encephalitis.
5. Explain the prevention strategies for meningococcemia and Eastern equine encephalitis.
6. Differentiate among the signs and symptoms associated with the common cold, influenza, Lyme disease, mononucleosis, meningococcemia and Eastern equine encephalitis.
7. Describe the similarities and differences among the treatment and prevention strategies for the common cold, influenza, Lyme disease and mononucleosis.
8. Counsel athletes regarding appropriate and current immunizations for their age group.
9. Counsel sexually-active athletes regarding the prevention of sexually-transmitted diseases.
10. Describe the asthma disease process including etiology, epidemiology and pathology.
11. Identify asthma and bronchospasm triggers
12. Counsel asthmatic athletes regarding strategies to prevent and manage an asthmatic episode.
13. Classify the pharmacological approaches to the treatment of asthma into several general categories.
14. Explain components of the metabolic syndrome.
15. Counsel at-risk athletes regarding prevention and management of high blood pressure, hypercholesterolemia and obesity as related to risk of cardiovascular disease.
16. Differentiate between the causes and signs and symptoms of type I and type II diabetes. Describe differing treatment approaches and devices (e.g., glucose testing devices, insulin pumps, etc.).
17. Summarize the circulatory and nervous system pathologies/complications associated with diabetes and describe the pathogenesis of these complications.
18. Explain type II diabetes prevention strategies.

19. Create food intake and exercise guidelines to assist athletes with proper management of blood glucose levels and diabetes.

PHYSICAL THERAPY:
Apple Therapy, 29 Kosciuszko St, Manchester (Various Physical Therapists and Physical Therapy Assistants)
GOAL: The Resident will spend time with PT during the Residency year. Both the Resident and the preceptor will work to arrange the observation of the following (at a minimum) during the year. When possible, following the same patient through much of their progress is ideal.

1. Cervical spine evaluation and exercise prescription.
2. Shoulder evaluation and exercise prescription.
3. Low back evaluation and exercise prescription.
4. Hip evaluation and exercise prescription.
5. Knee evaluation and exercise prescription.
6. Ankle evaluation and exercise prescription.

Specific Rotation Objectives:
After completion of the Residency, the Resident will be able to:

1. Compare and contrast the professional education background and healthcare roles of physical therapists and physical therapist assistants.
2. Use physical therapy/musculoskeletal terms appropriately when interacting with other medical professionals.

The Resident will also be able to do the following with respect to cervical spine, shoulder, low back, hip, knee and ankle rehabilitation:

1. Provide a detailed description of evaluation procedures and explain the rationale for each special test.
2. Design individualized rehabilitation protocols to address patient-specific range of motion and strength deficits.
3. Recognize incorrect performance of rehabilitation exercises.
4. Effectively communicate to patients the correct posture and movements for rehabilitation exercises.

RADIOLOGY – Catholic Medical Center:

Catholic Medical Center – 100 McGregor St, Manchester NH 03103 (Radiology contact: Carol Greenwood.)

GOAL: The resident will spend 20 hours over one week and the rotation will include observation of common radiological tests of the musculoskeletal system.

OBJECTIVES:

1. Understand indications, administration, evaluation and where possible, correlation to clinical findings for radiological tests including plain x-ray, CT scan, MRI, arthrography, and bone scan, especially as it applies to musculoskeletal disorders.
2. As the schedule allows, the Resident should attempt to observe the following:
   i. Plain x-ray – patient prep, test administration, film reading
   ii. Ultrasound – patient prep, test administration, film reading
   iii. MRI – patient prep, test administration, film reading
   iv. CT Scan – patient prep, test administration, film reading
   v. Bone Scan – patient prep, test administration, film reading
   vi. Arthrogram – patient prep, test administration, film reading
   vii. Any other special tests – patient prep, test administration, film reading
3. Recognize dangers of exposure to radiation including added concerns regarding children.

Specific Rotation Objectives - After completion of the radiology rotation the resident will be able to:

1. Describe the education required to work at varied positions in diagnostic imaging.
2. Use appropriate diagnostic imaging terms appropriately when interacting with other medical professionals.
3. Explain the risk of radiation exposure in common radiological exams.
4. Compare and contrast the indications and clinical value of x-rays, CT scans, MRIs, diagnostic ultrasounds, special tests (e.g., arthrogram, myeologram) and nuclear medicine scans for the purposes of potential athletic injuries/scenarios.
5. Explain the value of American College of Radiology accreditation.
6. Describe x-ray, CT scan, MRI, ultrasound, arthrogram, myeogram and nuclear medicine scan diagnostic procedures to increase the comfort level and improve the understanding for athletes requiring these tests.

SURGERY/ANESTHESIA:

(BASC rotations coordinated with supervisor Peg Kelley; Catholic Medical Center rotation coordinated by Heidi Paradis, Director of Professional Education. Karen Reis/Jennifer Lynch, RN, Head Nurse, Operating Room)

GOAL: Over two weeks (CMC), the Resident will observe non-orthopedic surgical procedures, including anesthesia and recovery, in order that the Resident may be prepared to explain such procedures to athletes, coaches and parents.

OBJECTIVES:

1. Understand sterile procedures.
2. Appreciate normal and abnormal anatomy.
3. Understand the pathology which brought the patient to OR and how the procedure will help.
4. Observe/understand pre-surgical anesthesia counseling, types of anesthesia, anesthesia drugs, administration, monitoring, risks, complications and side effects of anesthesia.
5. Observe/understand the use of life support equipment.

Specific Objectives:

After completion of the surgery rotations the resident will be able to:

1. Describe the education required to work as an anesthesiologist, CRNA, RN, surgeon and PA.
2. Use medical terms appropriately when interacting with other medical professionals in the OR and surgical center.
3. Identify sterile areas, equipment and personnel in the operating room.
4. Describe general strategies for maintaining sterility and avoiding contamination within the operating room.
5. Describe specific behaviors required of OR observers to maintain a sterile OR environment.
6. Differentiate between the roles of the anesthesiologist and the anesthetist.
7. Explain when local, regional and general anesthesia might be used.

EDUCATIONAL GOALS FOR THE RESEARCH EXPERIENCE

After completion of the residency, the resident will be able to:

1. Define and describe research, including specific steps in the scientific process.
2. Create and categorize research questions that fit along the continuum of basic to applied research.
3. Identify types of research that athletic trainers are most likely to do.
4. Explain why randomized controlled trials are a gold standard in medical research.
5. Explain the value of varied levels of evidence in relationship to the strength of research findings in specific settings.
6. Describe why it is important for certified athletic trainers to make research contributions to the science of sports medicine.
7. Create a system for finding and reading research.
8. Develop an awareness of controversial research topics that may influence the athletic training profession.
9. Use the appropriate process to hone a research topic into a researchable question.
10. Create a PubMed NCBI account and perform a thorough literature search on a clinical or research topic.
11. Use Sport Discus to perform a thorough literature search on a clinical or research topic.
12. Use Cochrane Database to perform a systematic review search on a clinical or reseach topic.
13. Explain the value of review articles in scientific literature.
14. Apply evaluation tools (e.g., PEDro scoring and Critical Appraisal Checklist) to determine the strength of research studies.
15. Describe why assessing the strength of published manuscripts is important before making changes in clinical protocols.
16. Outline a literature review that includes appropriate breadth and depth for a specific research question.
17. Write a clear research purpose statement and hypothesis.
18. Define and write a null hypothesis for a specific research question.
19. Define dependent and independent variables and identify them in the context of research questions.
20. Create operational definitions for variables in a research project.
21. Articulate a rationale for a research question, such that a granting agency would fund your project.
22. Distinguish among assumptions, limitations, and delimitations by creating a list of each for a specific research question.
23. Define reliability and validity as they pertain to research.
24. Define and explain internal and external validity and using a specific study question and methods describe trade-offs that may be required in one to achieve the other.
25. Develop a design for a specific research question.
26. Use a specific research question and methods to identify potential sources of random and systematic errors.
27. Explain the value of an intraclass correlation.

28. Define Type I and Type II errors and relate these terms to definitions of alpha, beta and power.
29. Use a specific research question to explain the consequences of making Type I and Type II errors.
30. Describe in general the importance and the process of a priori determination of sample size. Identify the factors that are analyzed and how they are related in the determination of sample size.
31. Create a clinical example that illustrates the value of understanding meaningful clinical differences versus significant differences.
32. Create detailed plans (flow sheet) for data collection sessions.
33. Describe the general history of the regulation of protection human research subjects; describe the role of the Institutional Review Board toward this end.
34. Describe potential consequences of the failure to remain forthright in the research and publication process.
35. Write and submit an IRB application and consent document; receive IRB approval for research study.
36. Describe some potential consequences to a specific research project that has not been piloted.
37. Develop subject inclusion and exclusion criteria for a specific research project.
38. Define "random sample" and identify how to obtain a random sample of subjects.
39. Describe the importance of randomization of subjects to groups within a study, including the importance of ascertaining whether the randomization was successful.
40. Explain why a statistical analysis must match the statistical design.
41. Explain how parametric statistics differ from non-parametric statistics.
42. Identify commonly-used statistical tests for identifying differences between data sets.
43. Identify commonly-used statistical test for identifying relationships between data sets.
44. Define variability, mean, standard deviation (SD), standard error of the measurement (SEM), mode, confidence interval (CI) and effect size then describe their importance in understanding the meaning of data being assessed.
45. Create appropriate tables and/or figures to convey the results of a specific research question.
46. Accurately write 1-2 sentences to state the findings of statistical tests used to answer the specific research question.
47. Describe the essential elements of a good discussion section.
48. Use related literature to explain 1-2 findings of a specific research question.
49. Identify the next research questions that should be asked following completion of a specific research project.

EDUCATIONAL GOALS FOR THE HIGH SCHOOL EXPERIENCE

GOAL: The Resident will spend 10-25 hours (+/- depending on season) per week during the school year working autonomously in a high school or injury clinic setting.

OBJECTIVES:

1. Gain/increase exposure to athletic training for the adolescent age group.
2. Gain experience as part of the sports medical team interacting with athletes, parents, coaches, athletic directors and other members of the medical team including physicians, physician assistants, neuropsychologist, neurologist and other athletic trainers (i.e., colleagues).
3. Understand the importance of providing adequate education and support for injured athletes and their parents.
4. Integrate and apply lessons learned in other aspects of the residency to care of high school athletes.
5. Develop confidence and competence in athletic training skills and decision-making.
6. Maintain complete, professional electronic medical records for all athletes encountered.
7. Direct school-based application of a concussion management program.
8. Learn the value and importance of networking with colleagues including athletic trainers and others.

Specific Objectives:
After completion of the Residency, the resident will be able to successfully:

1. Recognize, diagnose, manage and appropriately refer injuries, illnesses and other conditions whether musculoskeletal or involving other systems
2. Skillfully integrate knowledge from residency clinical rotations and other residency activities into daily patient care
3. Deliver excellent patient-centered care
    a. successfully and clearly inform, educate and communicate in a compassionate manner
    b. serve as an advocate for the high school athlete
    c. communicate with all parties to increase the level of care received by the athlete and develop and implement an effective overall treatment plan
    d. make appropriate referrals
    e. keep athlete and parent informed of diagnosis and treatment plan at all junctures
    f. adapt clinical plans as required to meet the athlete's individual needs
4. Demonstrate in-depth understanding of roles of various healthcare providers in caring for athletes and ensuring provision of optimal care
5. Effectively search out and integrate evidence to optimize patient outcomes and patient understanding of diagnosis and treatment plan
6. Communicate effectively in person and in writing via e-mail and text with team physician/physician assistant to optimize patient care
7. Demonstrate utmost professionalism and interacting with the spectrum of people involved in high school athletics (i.e., from athlete to team physician)

INSTRUCTIONS FOR RECURRING ASSIGNMENTS

Grand Rounds Presentation Guidelines

Throughout the year residents will report on interesting cases (sometimes unique procedures) that they see either in rotations or during their athletic training work. (The 1 or 2 following "Grand Rounds" in the syllabus indicates which fellow is to present that day.)

Appropriate preparation includes:

1. Investigation/reading about the condition in order to describe it at the session (epidemiology, classic patient characteristics, natural history of the condition, etc.).
    a. Choose 1 or 2 sources (for example, read a review/overview article and visit the condition's support website, the professional association webpage for the medical specialty that deals with the condition, MedLine Plus or WebMD.)
2. Collecting demographic and medical history (including pertinent past medical history and history of the current condition)
3. Identifying any aspects about the presentation that are unusual or irregular.
4. Detailing past, current and future (i.e., planned) medical management of the condition.

In general, your oral presentation (with PowerPoint) should include the following information:

1. Patient age and sex
2. Pertinent medical history
3. History of the current condition (length of existence, how it presented, how it has been treated to date)
4. Care provided/suggested on the day of your observation (include "how, what, why" info about surgical procedures or pharmacological treatments)
5. A handful of important possible diagnoses to include on a differential list for this condition
6. Epidemiology of this condition (include incidence in athletes if the info is available)
7. Type/s of treatment/s available and their effectiveness
8. Describe how this condition is similar and different from conditions you have learned about or observed in your athletic training experience/education
9. Identify patient-centered information and resources that you would provide for patients under your care
10. Identify aspects of this case and what you've learned from it that will inform your future practice of athletic training

Journal Club Guidelines

In advance of Journal club dates, a journal and articles will be selected. Both residents, Amy and Laura will participate by reading and assessing the assigned articles and preparing a review to be shared with the others. Article assessment will be done using either the PEDro or the Critical Appraisal Checklist (posted on Retrieve, Research Lesson 4). Please experiment with both tools during the year.

Items to be reported to the group include:

1. Authors and institutions (Who wrote this manuscript? Where are they from? Are they recognized authorities on the topic?).
2. Type of article (research (observational versus experimental), review, other – describe).
3. Description of study (purpose, design, subjects, findings).
4. Assessment/rating of the overall quality of the study (PEDro or CAC score) identifying and describing specific areas of questionable methodology/quality.
5. Clinical relevance (General and specific to you):
6. Will you change your clinical practice based on this study? If so, how?

Each resident will select at least two papers for review by the group. One of those papers should be a systematic review or meta-analysis. The other should be an investigation of a specific rehabilitation protocol or approach.

Reflection Assignment Directions

To reinforce learning during the Residency and to foster the development of lifelong learning habits, residents will regularly reflect on their professional experiences. The reflection process will culminate in the preparation and presentation of a capstone project.

REFLECTION ASSIGNMENTS:

BE SURE TO REVIEW INTRODUCTION TO REFLECTING POWERPOINT AND READ REFLECTION READINGS (CHAPTERS 2 & 3) POSTED ON RETRIEVE PRIOR TO STARTING REFLECTION ASSIGNMENTS.

- ROTATION REFLECTIONS:
    - At the end of each rotation week, submit a written reflection to RPD via e-mail. Please submit this by 9 am on the Monday morning following the last day of your rotation. Generally, reflections will identify topics and/or events (**what**), their importance to you (**so what**), and how you plan to use the knowledge gained in the future (**now what**). In particular, you may wish to address the topic of how your experience might change your clinical practice. *Review the capstone reflection areas at the end of this document so that you are sure to identify experiences that contribute in those areas.*
- FIRST QUARTER REFLECTION:
    - In September, you will be required to create a PowerPoint presentation covering your reflections from your first three rotations. Select the 3 most important items from among your reflections to date. Usually, each item reflected upon will have 3 slides: one that describes the item (**"what"**); one that describes its importance or interest to you and/or the field of athletic training (**"so what"**); and one that describes how you plan to use the new knowledge and how it will influence you in the future (**"now what"**). You will make an oral/PowerPoint presentation to RPD and the other resident. See the syllabus for due date.
- SEASONAL REFLECTIONS:
    - Throughout the season, keeps notes while you are at the high school and drop-in clinic that will aid you in creating a seasonal reflection concerning your professional activities at the high school and/or the drop-in clinic. Pay particular attention to recognizing how your clinical and didactic residency activities are informing and improving your clinical practice, as well as what you're learning

directly in the practice setting. These reflections will be due at the ends of November, March and June (see syllabus for due dates).

- POST-EDUCATIONAL CEU REFLECTIONS:

    - Create and save reflections during the Fall Symposium, the Winter Orthopedic Meeting, and the Spring Hot Topics Meeting. Approximately I month after each continuing education event, you will be required to make a PowerPoint presentation concerning your experience at these events. All aspects of the experience, not just the educational aspect, may be important areas for reflection; for example, professionalism apparent in dress/conduct of speakers or attendees or sponsors' exhibits may be addressed. Further, positive *and* negative observations are appropriate (e.g., you learned X from lecture 2 and you will use it in this way; you learned you don't learn as well from a certain type of presentation and will seek alternatives). See syllabus for dates of these presentations.

- MEDBRIDGE ARTICLE REFLECTIONS

    - Residents will be assigned 1 or 2 Medbridge blog articles each month. You will be required to review the information in the article and submit a short reflection to the RPD via email. These brief reflections should follow a similar format as the rotation reflections ("what, so what and now what"). These reflections are due on the third Friday of each month (see syllabus).

- FINAL CAPSTONE REFLECTIONS (WRITTEN AND ORAL)

    - Residents will be asked to complete and submit a written capstone project AND create a PowerPoint for an oral capstone presentation. The written project will be submitted to RPD before the final week of the residency (see syllabus for due date). The oral capstone presentation will be presented to various faculty members and colleagues during the final week of the residency (see syllabus for date of presentation). Complete capstone project (written and oral) guidelines can be found in a separate document.

CAPSTONE PROJECTS – GUIDELINES

FINAL WRITTEN CAPSTONE:

- Review the year's reflections and identify the **five most important things you learned** during the year and,
- **Additionally,** reflect on experiences in the areas of the following topics:
    - ***In medicine, there may be many "correct" answers to the same question:*** This is one of the most important lessons of the Residency. Identify/reflect on several areas/occasions during the year when this was borne out by your experience. How will this fact impact your practice of athletic training in the future?
    - ***Secondary school athletic training setting:*** Did you have preconceived notions about this setting? Did those notions prove to be accurate or inaccurate? What did you like/dislike about this setting?
    - ***Interacting with physicians and other healthcare professionals:*** Has your ability to communicate and interact with physicians improved over the year? Describe the progress that you have made and any obstacles you had to overcome; how will this enhance your career? How will it help your athletes/patients?
    - ***Professional networking****:* Reflect on the relationships you have developed with colleagues and other healthcare professionals; describe situations where those relationships helped you in some way. Give thought to how you might expend some extra effort to develop your professional network in your career; why would it be important to you to do so?
    - ***"Finding the nugget":*** reaching for applicability in experiences that may seem unrelated to athletic training. During the residency, you will spend a fair amount of time seeing conditions in non-athletic populations that are rare in athletes. However, with an open/seeking mind, there is often a way to make that experience valuable and important for your future work with athletes.
    - ***Scientific evidence-based versus anecdotal evidence-based medicine****:* As all healthcare professionals are aware there is an overwhelming move toward scientific evidence-based practice however, it is still only a very small percentage of medicine that has scientific evidence upon which to rely. Describe situations

you encountered during the year where scientific and anecdotal evidence might have clashed. Reflect on a few professional habits you have that are based more on anecdotal evidence than scientific.

- ***Continuing education*:** How is it different from college? Describe its importance. What kind of continuing education will you seek in the future? Assuming you attend the NATA meeting during your Fellowship year, how did the Fellowship impact the sessions (etc.) you selected to attend at the national meeting?

- ***The importance of research to your career:*** Now that you better understand the process and the importance of research to the field, do you think you will pursue a research component in your career? How will you keep up with published research?

- ***Reflecting on reflections:*** How did the process of reflecting on your experience over the year impact you? How/ do you expect to continue to use the reflection process in the future? Did your reflecting ability improve over the year? Did it become easier or even automatic?

FINAL ORAL CAPSTONE:

- **Create a PowerPoint presentation** that covers the following (usually, each item reflected upon will have 3 slides: 1 that describes the item (**"what"**); 1 that describes its importance/interest to you and/or the field of AT (**"so what"**); and 1 that describes how you plan to use the new knowledge and how it will influence you in the future (**"now what"**). Plan to speak for about 30 mins each. *Some topics from the written project are split between residents for the oral presentation – see below.*
- **Both Residents:**
  - The **5 most important things you learned** during the year
  - "**Reflecting on Reflections"**: (How did the process of reflecting on your experience over the year impact you? How/do you expect to continue to use the reflection process in the future? Did your reflecting ability improve over the year? Did it become easier or even automatic?)
- **Split Between Residents** (Discuss and decide together in dividing the following topics):
  - ***In medicine, there may be many "correct" answers to the same question:*** This is one of the most important lessons of the Residency. Identify/reflect on several areas/occasions during the year when this was borne out by your experience. How will this fact impact your practice of athletic training in the future?

- ***"Finding the nugget":*** reaching for applicability in experiences that may seem unrelated to athletic training. During the residency, you will spend a fair amount of time seeing conditions in non-athletic populations that are rare in athletes. However, with an open/seeking mind, there is often a way to make that experience valuable and important for your future work with athletes.

- ***Interacting with physicians and other healthcare professionals:*** Has your ability to communicate and interact with physicians improved over the year? Describe the progress that you have made and any obstacles you had to overcome; how will this enhance your career? How will it help your athletes/patients? What was difficult for you about this process?

- ***Professional networking:*** Reflect on the relationships you have developed with colleagues and other healthcare professionals; describe situations where those relationships helped you in some way. Give thought to how you might expend some extra effort to develop your professional network in your career; why would it be important to you to do so? Outline your experience/approach with different healthcare providers.

- ***Secondary school athletic training settings:*** Did you have preconceived notions about this setting? Did those notions prove to be accurate or inaccurate? What did you like and dislike about this setting? What situations do you think you handled well? Which situations would you handle differently if faced with them again? Give examples of situations you feel you handled better in the spring vs the fall (with more experience/confidence).

- ***Scientific evidence-based versus anecdotal evidence-based medicine****:* As all healthcare professionals are aware there is an overwhelming move toward scientific evidence-based practice however, it is still only a very small percentage of medicine that has scientific evidence upon which to rely. Describe situations you encountered during the year where scientific and anecdotal evidence might have clashed. Reflect on a few professional habits you have that are based more on anecdotal evidence than scientific.

- ***Continuing education:*** How is it different from college? Describe its importance. What kind of continuing education will you seek in the future? Assuming you attend the NATA meeting during your Fellowship year, how did the Fellowship impact the sessions (etc.) you selected to attend at the national meeting?

- ***The importance of research to your career?*** Now that you better understand the process and the importance of research to the field, do you think you will pursue a research component in your career? How will you keep up with published research? Reflect on the research process: was it easier/harder than you

expected? Were there more obstacles than you thought there would be? If so, how did you overcome these challenges?

You Teach Me Sessions Guidelines

Periodically during the year, Residents will be required to present an oral session on the indicated topic. The presentation may be a simple oral presentation with or without handouts. This project is meant to be a collaborative effort. You may collaborate on a single topic or may divide the topics up. For example, one such topic is "scapular exercises." Prepare a session (directed toward an injured adolescent athlete and/or parent) that:

1. Informs the listener the type of patient/condition for whom the program would be appropriate.
2. Lists and describes appropriate performance of each exercise to be included in the program.
3. Describes why each exercise is important.
4. Uses advanced resources, not "just" textbooks. Use Medline and the internet to investigate the thinking of experts in the topic area. THINK!
5. Describes how to assess the success of the program.

Creating Problem-Based Learning Case Studies Guidelines

Periodically during the year, residents will be required to present oral problem-based learning (PBL) case studies. The presentations must be created in PowerPoint based on the PBL template. The condition (illness or injury) should challenge the differential diagnosis skills of participants; the presentation concludes with information about the condition and appropriate treatment. Generally, the information/format presented will include:

1. Athlete presentation (sex, age, chief complaint)
2. Presenter role-plays answering all history (etc) questions.
3. Review of physical exam results presented.
4. Participants create a list of differential diagnoses (DD) for the signs and symptoms.
5. Participants identify cardinal s/s of each condition on the DD.
6. Participants pick their #1 possible diagnosis from the list.
7. Presenter IDs the right answer and presents information about the condition and appropriate treatment.

These (and other web pages) may be helpful. Remember to carefully select resources – the internet is NOT fact-checked!!:

http://www.ncbi.nlm.nih.gov/pubmedhealth/

http://en.diagnosispro.com/

http://symptoms.wrongdiagnosis.com/

http://symptoms.webmd.com/default.htm

http://easydiagnosis.com/modules.html

www.mayoclinic.com

http://www.medicinenet.com/symptoms_and_signs/article.htm

Practice Brief Guidelines

Overview: It is imperative that clinicians read and employ the best evidence available to ensure appropriate management of athletes with various conditions. After discussion, and with guidance from the RPD, select a general medical condition and perform a literature review. When possible, begin with consensus and position statements to provide expert direction to help you identify the most important aspects of the condition as they pertain to our practice with high school athletes. Once the areas of focus within the condition have been identified, select pertinent papers, procure them, read them thoroughly and assess their quality. The end-result of this project will be a "Practice Brief" that has been reviewed by our medical director and other resources, and then disseminated to our staff.

Basic Steps:

1. Does the NATA have a position statement (or similar) on the topic? Does another group (e.g., does diabetes group have a statement about managing athletes)?
2. Procure and read position statement/s from # 1 as they will help you identify the important issues created by the selected condition. Ensure that RPD has a copy of this paper.
3. Pick 2-4 specific questions/areas of focus from among issues identified in #2. Discuss with and receive approval from RPD.
4. Perform a Medline search for research on your areas of focus.
5. Procure several papers in each area. Read for content and mine the reference list for other papers you may wish to procure.
6. Assess/rate the overall quality of the studies (PEDro or CAC score); the better the evidence, the more you can rely on it in decision making.
7. Create an annotated bibliography for each area of focus. Cite the paper and summarize its findings as they relate to the area of focus. Submit completed annotated bibliography to RPD.
    a. An annotated bibliography is a list of citations to books, articles, and documents. Each citation is followed by a brief (usually about 150 words) descriptive and evaluative paragraph, the annotation. The purpose of the annotation is to inform the reader of the relevance, accuracy, and quality of the sources cited.
    b. Creating an annotated bibliography calls for the application of a variety of intellectual skills: concise exposition, succinct analysis, and informed library research. First, locate and record citations to books, periodicals, and documents that may contain useful information and ideas on your topic. Briefly examine and review the actual items. Then choose those works that provide a variety of perspectives on your topic. Cite the book, article, or document. Write a concise annotation that summarizes the central theme and scope of the book or article. Include one or more sentences that (a) evaluate the authority or background of the author, (b) comment on the intended audience, (c) compare or contrast this work with another you have cited, or (d) explain how this work illuminates your bibliography topic.
    c. In your annotation, include and justify your conclusion/s as to what our clinical practice (specific to the areas of focus chosen) should be.
8. Once approved by RPD, speak with pertinent resources - always to include Dr. Vailas because of his position as medical director - to briefly describe the project and see if they would be willing to give the annotate bibliography a read to ensure accuracy of determinations. Generally, our primary care faculty are likely to be good resources.
9. Incorporating input from our medical director and other resources, create a draft of a Practice Brief for Safe Sports Network. See Boston University sample posted at http://www.bu.edu/sargent/files/2010/09/FacemaskRemoval.pdf

10. Prepare a brief presentation to be given to our staff ATs to explain the Practice Brief.

During the year, we will complete 2-3 of these (depending on the size of each project).

Evidence Based Medicine Assessment Project Guidelines

Overview: Clinicians must regularly assess the success of injury management approaches and make strategic changes where indicated. Inherent in this is the recording of outcomes data that can be assessed to indicate results of specific treatment approaches. Two to three times per year, residents will develop a clinical question, request and analyze data to determine current outcomes and identify areas that may need improvement, then implement new strategies as needed to improve outcomes. Re-assessment of outcomes after a period of time will provide evidence of the success of the treatment approach. The end-result of this project will be implementation and assessment of practice changes in an attempt to improve patient outcomes.

Basic Steps:

1. Identify and hone the clinical question and its important variables. Discuss with RPD.
2. Procure treatment and outcome data from SportsWare and/or CORE-AT.
3. Study the results to glean information related to the clinical question; assess outcomes to ascertain the need for strategic changes in practice.
4. Determine the change/s you would like to implement. Discuss with RPD and Safe Sports Director.
5. Plan the implementation of changes.
6. At the end of the prescribed time period (e.g., season, school year, etc...), procure updated data.
7. Study the results/compare to the previous results to determine whether your intervention/s improved outcomes.
8. Prepare a report detailing the clinical question, previous and new outcomes, assessing success and identifying the need for further change/s.

AFFILIATING AGENCIES

Apple Therapy Services, 29 Kosciuszko Street, provides physical therapy services to predominantly orthopedic patients. Apple employs physical therapists, physical therapist assistants and certified athletic trainers. The Fitness Network is operated at the same address and provides fitness equipment for general public members as well as for physical therapy patients.

Bedford Ambulatory Surgical Center (BASC) is a same-day surgery facility in Bedford with several operating suites. It opened in 1993 and is used for all types of outpatient procedures.

Nashua Ambulatory Surgical Center (NASC) is a same-day surgery facility in Nashua with several operating suites. It opened in 2012 and is also used for all types of outpatient procedures.

The Catholic Medical Center (CMC) and Elliot Hospital are two full-service hospitals in Manchester. You will have rotations at CMC and observe surgeries at Elliot Hospital. You will also follow clinical instructors to observe at several other hospitals: Southern NH Medical Center, St. Joseph's Hospital and Concord Hospital.

The University of New Hampshire in Durham is the largest school in the state, with approximately 11,000 undergraduate students. The kinesiology department operates a biomechanics lab.

APPENDIX 1: DIRECTIONS

AMBULANCE STATION (American Medical Response):

35 PINE ST, MANCHESTER

___

BEDFORD AMBULATORY SURGICAL CENTER (BASC)

11 WASHINGTON PLACE #1, BEDFORD

GO SOUTH ON CHESTNUT STREET TO LAKE AVE; TURN RIGHT. LAKE AVE BECOMES GRANITE STREET AFTER YOU CROSS ELM. INCLUDING THE LIGHT ON ELM STREET, TURN LEFT AT YOUR FIFTH LIGHT: SECOND STREET. STAY ON SECOND STREET UNTIL IT ENDS NEAR THE MOBIL STATION, THEN BEAR LEFT ONTO SOUTH RIVER ROAD. TURN LEFT AT THE SECOND SET OF LIGHTS ONTO WASHINGTON PLACE. TURN IN, FOLLOW THE ROAD TO THE LAST BUILDING ON THE RIGHT (BEDFORD AMBULATORY SURGICAL CENTER). USE THE FRONT DOOR.

___

BRIAN CLAUSSEN, MD

57 WEBSTER ST # 110

HEAD NORTH ON KOSCIUSZKO STREET TO BRIDGE. TURN RIGHT ON BRIDGE STREET. TURN LEFT ON PINE STREET. TURN LEFT ON WEBSTER STREET.

___

CATHOLIC MEDICAL CENTER:

100 MCGREGOR STREET

GO WEST ON BRIDGE ST; TURN LEFT AT THE END OF THE BRIDGE. YOU'LL SEE THE HOSPITAL JUST AHEAD ON THE RIGHT. PARK IN THE PARKING GARAGE ACROSS THE STREET.

___

CHIROPRACTOR

Robin Bruck, DC - 765 SOUTH MAIN ST

GO SOUTH ON CHESTNUT STREET TO LAKE AVE; TURN RIGHT. LAKE AVE BECOMES GRANITE STREET AFTER YOU CROSS ELM. INCLUDING THE LIGHT ON

ELM STREET, TURN LEFT AT YOUR FIFTH LIGHT: SECOND STREET. STAY ON SECOND STREET UNTIL IT ENDS NEAR THE MOBIL STATION, TURN RIGHT, THEN TAKE AN IMMEDIATE LEFT INTO DARTMOUTH COMMONS. OFFICE IS IN THE FIRST BUILDING ON THE RIGHT.

___

CONCORD HOSPITAL

250 PLEASANT STREET, CONCORD

HEAD NORTH ON KOSCIUSZKO STREET TO BRIDGE. TURN RIGHT ON BRIDGE STREET. FOLLOW BRIDGE STREET TO AMOSKEAG STREET. TURN LEFT ONTO AMOSKEAG STREET (OVER BRIDGE) AND MERGE ONTO I293/I93 NORTH. FOLLOW I93 NORTH FOR 15 MILES (THROUGH TOLL). TAKE THE EXIT ONTO I89 NORTH (IN CONCORD). FOLLOW I89 NORTH TO EXIT 2 (CLINTON STREET). CONTINUE ON CLINTON STREET TO 250 PLEASANT STREET.

___

DERMATOLOGIST (Robert Posnick, MD)

17 PROSPECT ST, SUITE N301, NASHUA, NH 03060

GO SOUTH ON 293/ EVERETT TURNPIKE ($.75 TOLL EACH WAY) TO EXIT 5W IN NASHUA, TOWARD RT 111A. TURN RIGHT ONTO NH 111 (W. Hollis Street).

___

DERRYFIELD SCHOOL:

2108 NORTH RIVER ROAD

GO EAST ON BRIDGE STREET, TURN LEFT ON UNION STREET. FOLLOW UNION STREET UNTIL IT ENDS AND TURN RIGHT ONTO NORTH RIVER ROAD (8-10 min). DERRYFIELD SCHOOL IS 200 YARDS AHEAD ON YOUR LEFT.

___

EAR, NOSE, THROAT (JEFFREY BYER)

130 TARRYTOWN RD

GO EAST ON BRIDGE STREET TO MAMMOTH ROAD, TURN RIGHT. TURN RIGHT AT THE SECOND LIGHT AND LEFT ONTO TARRYTOWN ROAD, FOLLOWING HOSPITAL SIGNS. THE HOSPITAL IS ON YOUR RIGHT APPROXIMATELY ½ MILE

DOWN….130 TARRYTOWN IS ONE OF THE DOCTOR'S PARKS ON THE HOSPITAL CAMPUS.

___

EDWARD A. SIRLIN III, MD: SOUTHERN NEW HAMPSHIRE HEALTH, BONE & JOINT CENTER

17 RIVERSIDE ST, SUITE 101, NASHUA, NH 03060

GO SOUTH ON 293/ EVERETT TURNPIKE ($.75 TOLL EACH WAY) TO EXIT 5W IN NASHUA, TOWARD RT 111A. TURN RIGHT ONTO NH 111 THEN TAKE A SLIGHT RIGHT ONTO PANTHER DRIVE AND SLIGHT RIGHT ONTO RIVERSIDE STREET.

___

ELANA BANNERMAN, MD – PRIMARY CARE OF HUDSON

300 DERRY RD, HUDSON, NH

TAKE I-93 SOUTH. USE RIGHT LANE TO MERGE ONTO I-93S VIA RAMP TO NH-101/SALEM BOSTON. TAKE EXIT 4 FOR NH-102 W TOWARD LONDONDERRY. CONTINUE FOLLOWING NH 102W TO YOUR DESTINATION. OFFICE IS ON YOUR RIGHT.

___

ELLIOT HOSPITAL

1 ELLIOT WAY

GO EAST ON BRIDGE STREET TO MAMMOTH ROAD, TURN RIGHT. TURN RIGHT AT THE SECOND LIGHT AND LEFT ONTO TARRYTOWN ROAD, FOLLOWING HOSPITAL SIGNS. THE HOSPITAL IS ON YOUR RIGHT APPROX. ½ MILE DOWN.

___

GREGORY SOGHIKIAN, MD – (See NH ORTHOPAEDIC CENTER – BEDFORD OFFICE)

___

GILL STADIUM:

396 VALLEY STREET

GO EAST ON BRIDGE STREET, TURN RIGHT ON BEECH STREET. THE STADIUM IS ON YOUR LEFT -- ON THE CORNER OF VALLEY STREET.

___

GROCERY STORES:

HANNAFORD: THE CLOSEST HANNAFORD IS ON HANOVER STREET. GO EAST ON BRIDGE STREET TO MAMMOTH ROAD, TURN RIGHT. AT YOUR NEXT LIGHT, TURN LEFT -- SHOPPING CENTER WILL BE ON YOUR RIGHT.

MARKETBASKET: HEAD NORTH ON KOSCIUSZKO STREET TO BRIDGE STREET. TURN RIGHT ON BRIDGE STREET. TURN RIGHT ONTO CHESTNUT STREET. GO STRAIGHT ON CHESTNUT STREET FOR ½ MILE. TURN RIGHT ONTO LAKE AVE. TURN LEFT ONTO ELM STREET – SHOPPING CENTER WILL BE ON YOUR RIGHT.

___

HEATHER KILLIE, MD (NHOC – NASHUA)

17 RIVERSIDE ST, SUITE 101, NASHUA

GO SOUTH ON 293/ EVERETT TURNPIKE ($.75 TOLL EACH WAY) TO EXIT 5W IN NASHUA, TOWARD RT 111A. TURN RIGHT ONTO NH 111 THEN TAKE A SLIGHT RIGHT ONTO PANTHER DRIVE AND SLIGHT RIGHT ONTO RIVERSIDE STREET.

___

MANCHESTER CENTRAL HIGH SCHOOL:

207 LOWELL STREET

GO EAST ON BRIDGE STREET, TURN RIGHT ON BEECH STREET. CENTRAL IS ON YOUR LEFT, ON THE CORNER OF LOWELL STREET.

___

MANCHESTER MEMORIAL HIGH SCHOOL:

1 CRUSADER WAY (FIELD ENTRANCE LOCATED ON PORTER STREET)

GO EAST ON BRIDGE STREET, TURN RIGHT ON BEECH STREET. AT VALLEY STREET, TURN LEFT. AT PORTER STREET, TURN RIGHT. MEMORIAL IS APPROXIMATELY 10 BLOCKS SOUTH, ON YOUR RIGHT. TURN RIGHT ONTO WESTON STREET FOR ACCESS TO THE PARKING LOT NEAREST THE ATHLETIC FACILITIES.

MANCHESTER HIGH SCHOOL WEST:

9 NOTRE DAME AVE, MANCHESTER, NH

GO WEST ON BRIDGE STREET, OVER THE BRIDGE. TURN LEFT AFTER BRIDGE. WEST IS 2 MILES DOWN ON THE RIGHT, WITH ATHLETIC FIELDS ON YOUR LEFT.

___

MARC MICHAUD, MD (See - NH ORTHOPAEDIC CENTER – BEDFORD OFFICE)

___

MARK MYERS, MD – PEDIATRIC HEALTH ASSOCIATES – BEDFORD

25 LEAVY DRIVE, BEDFORD, NH

TAKE I-93 SOUTH. TAKE NH-101W EXIT TOWARDS MANCHESTER/BEDFORD. FOLLOW NH-101W. TURN RIGHT ONTO OLD BEDFORD RD. TURN RIGHT ONTO LEAVY DRIVE. OFFICE IS ON YOUR RIGHT.

___

NASHUA AMBULATORY SURGICAL CENTER (NASC)

15 RIVERSIDE STREET, NASHUA

GO SOUTH ON 293/ EVERETT TURNPIKE ($.75 TOLL EACH WAY) TO EXIT 5W IN NASHUA, TOWARD RT 111A. TURN RIGHT ONTO NH 111 THEN TAKE A SLIGHT RIGHT ONTO PANTHER DRIVE AND SLIGHT RIGHT ONTO RIVERSIDE STREET.

___

NEUROLOGY (Maureen Hughes, MD, Concord Neurology Associates)

CONCORD NEUROLOGY ASSOCIATES AT CONCORD HOSPITAL
PILSBURY BUILDING – CONCORD HOSPITAL CAMPUS
248 PLEASANT STREET, #G200, CONCORD, NH

HEAD NORTH ON KOSCIUSZKO ST TOWARD BRIDGE ST. TURN LEFT AT THE 1ST CROSS STREET ONTO BRIDGE ST.
TURN RIGHT ONTO ELM ST. TURN LEFT ONTO W SALMON ST. CONTINUE ONTO AMOSKEAG ST. USE THE RIGHT LANE TO MERGE ONTO I-293 N/NH-3A N VIA THE RAMP TO CONCORD/HOOKSETT. CONTINUE ON I-293 N. TAKE I-93 N TO NH-13 N/CLINTON ST IN CONCORD. MERGE ONTO I-293 N/NH-3A N. CONTINUE TO

FOLLOW I-293 N. MERGE ONTO I-93 N. TAKE THE EXIT ONTO I-89 N. TAKE EXIT 2 TO MERGE ONTO NH-13 N/CLINTON ST TOWARD CONCORD MERGE ONTO NH-13 N/CLINTON ST. TURN LEFT ONTO LANGLEY PKWY. TURN RIGHT TOWARD LANGLEY PKWY. TURN RIGHT ONTO LANGLEY PKWY. TURN LEFT. WE ARE IN THE PILLSBURY BUILDING, AT THE CONCORD HOSPITAL CAMPUS GROUND FLOOR. WE HAVE A SEPARATE ENTRANCE WITH A SMALL LOT IN THE BACK- THAT IS LABELED G LOT. THERE IS ALSO A PARKING GARAGE NEXT TO THE BUILDING IF IT IS SNOWING.

—

NH ORTHOPAEDIC CENTER – BEDFORD OFFICE

9 WASHINGTON PLACE, SUITE 101, BEDFORD

GO SOUTH ON CHESTNUT STREET TO LAKE AVE; TURN RIGHT. LAKE AVE BECOMES GRANITE STREET AFTER YOU CROSS ELM. INCLUDING THE LIGHT ON ELM STREET, TURN LEFT AT YOUR FIFTH LIGHT: SECOND STREET. STAY ON SECOND STREET UNTIL IT ENDS NEAR THE MOBIL STATION, THEN BEAR LEFT ONTO SOUTH RIVER ROAD. TURN LEFT AT THE SECOND SET OF LIGHTS ONTO WASHINGTON PLACE. TURN IN, FOLLOW THE ROAD TO THE PARKING LOT FACING THE FIRST BUILDING ON THE RIGHT (NEW HAMPSHIRE ORTHOPEDIC CENTER). USE THE FRONT DOOR.

—

NH ORTHOPAEDIC CENTER – NASHUA OFFICE

17 RIVERSIDE ST, SUITE 101, NASHUA

GO SOUTH ON 293/ EVERETT TURNPIKE ($.75 TOLL EACH WAY) TO EXIT 5W IN NASHUA, TOWARD RT 111A. TURN RIGHT ONTO NH 111 THEN TAKE A SLIGHT RIGHT ONTO PANTHER DRIVE AND SLIGHT RIGHT ONTO RIVERSIDE STREET.

—

OPHTHALMOLOGY

Christiana Monroe, MD: NH EYE ASSOCIATES

1415 ELM STREET

NORTH ON ELM STREET TO # 1415 ON YOUR RIGHT.

ROBERT HEAPS, MD (NHOC – NASHUA)

17 RIVERSIDE ST, SUITE 101, NASHUA

GO SOUTH ON 293/ EVERETT TURNPIKE ($.75 TOLL EACH WAY) TO EXIT 5W IN NASHUA, TOWARD RT 111A. TURN RIGHT ONTO NH 111 THEN TAKE A SLIGHT RIGHT ONTO PANTHER DRIVE AND SLIGHT RIGHT ONTO RIVERSIDE STREET.__

___

ROBERT POSNICK, MD – See Dermatology

PODIATRY (N. Jake Summers, DPM)

100 HITCHCOCK WAY, MANCHESTER (DEPARTMENT OF ORTHOPEDICS)

HEAD NORTH ON KOSCIUSZKO STREET AND TURN RIGHT ONTO BRIDGE STREET. CONTINUE ON BRIDGE STREET (EAST) FOR 2.1 MILES TOWARD EDWARD J. ROY DRIVE. TURN LEFT ONO EDWARD J. ROY DRIVE AND CONTINUE ON THIS ROAD UNTIL YOU REACH DARTMOUTH-HITCHCOCK MANCHESTER LOCATION.

____

SCOTT EVANS – (See - NH ORTHOPAEDIC CENTER – BEDFORD OFFICE)

___

SOUTHERN NH REGIONAL MEDICAL CENTER

8 PROSPECT STREET, NASHUA

GO SOUTH ON 293/ EVERETT TURNPIKE ($.75 TOLL EACH WAY) TO EXIT 5E IN NASHUA, KINSLEY ST. CONTINUE THROUGH 4 SETS OF LIGHTS AND TURN RIGHT ONTO MAIN STREET. SOUTHERN NH REGIONAL MEDICAL CENTER ON LEFT.

___

TRINITY HIGH SCHOOL:

581 BRIDGE STREET

GO EAST ON BRIDGE STREET. TRINITY IS ON THE CORNER OF MAMMOTH ROAD

APPENDIX 2: PHONE NUMBERS (area code 603)

AMBULANCE, EMERGENCY	911
AMY HOLLINGWORTH (CELL)	943-5885
APPLE THERAPY SERVICES	668-1106
BEDFORD AMBULATORY SURGICAL CENTER	622-3670
BRIAN CLAUSSEN, MD	622-6491
CATHOLIC MEDICAL CENTER	668-3545
CHRISTIANA MONROE, MD	669-3925
CONCORD ED COORDINATOR	663-2830
EDWARD SIRLIN, III	577-2663
ELANA BANNERMAN	886-3979
FIRE, EMERGENCY	911
FITNESS NETWORK	668-1106
HEATHER KILLIE, MD	634-0080
JAKE SUMMERS, DPM	695-2998
JAMES VAILAS (Office)	634-0080
JAMES VAILAS (Cell)	320-3692
JEFFREY BYER, MD	669-0831
MARC MICHAUD, MD	669-5454
MARK MYERS, MD	472-5860
MAUREEN HUGHES, MD	224-6691
NASHUA AMBULATORY SURGICAL CENTER	882-0950
NH ORTHOPAEDIC CENTER BEDFORD (Vailas, Evans, Michaud, Soghikian, Wilkening)	634-0080

NH ORTHOPAEDIC CENTER NASHUA (Heaps, Killie)	883-0091
POLICE, EMERGENCY	911
ROBERT HEAPS, MD	634-0080
ROBERT POSNICK, MD	579-9648
SCOTT EVANS, PA-C (Cell)	320-2900
THE MEDICAL EYE CENTER	668-2020

APPENDIX 3: Resident Evaluation of Clinical Preceptor

Resident Evaluation of Clinical Preceptor

RESIDENT NAME:	Date:				
Preceptor name:					
The preceptor…	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
…is an effective teacher.					
… supports and encourages development of my critical thinking ability guiding integration of new knowledge and skills into my clinical performance.					
… encourages professional verbal communication between us regarding injured athletes.					
…demonstrates professional and effective verbal communication with athletes, coaches & families.					
… supports development of my skills in effectively assessing and diagnosing musculoskeletal injuries.					
… supports development of my skills in effectively assessing and diagnosing non-musculoskeletal injuries and illnesses.					
…demonstrates commitment to patient-centered care, educating and supporting the athlete and family through the injury.					
… demonstrates professionalism in his dress and interactions.					
…demonstrates comfort interacting with physicians and other healthcare providers.					
… takes initiative to teach me and enhance my knowledge and skills with various conditions as they arise.					

…encourages my professional growth and development.					

Comments:

APPENDIX 4: Resident Evaluation of Curriculum Activities & Teacher

Evaluation of Curriculum Activities & Teacher

Rotation: Various Planned Activities	Primary mentor: Amy Hollingworth
Your name:	Date:

Answer the following as appropriate about Amy's teaching and the planned didactic activities of the residency.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Communicates effectively in writing (e.g., explanations, assignments, directions are clear and easily understandable)					
Communicates effectively verbally (e.g., explanations, assignments, directions are clear and easily understandable)					
Creates a learning environment that appropriately challenges each student					
Employs a variety of instructional strategies to augment achievement					
Treat residents in a fair and equitable manner					
Provides relevant examples to illustrate concepts					
Encourages students to express ideas clearly and accurately					
Course lesson objectives are clear					
Lessons and assignments support residency objectives					
Amount of reading and other assignments appropriate					
The instructor is an effective teacher in didactic settings					
The instructor is an effective teacher in clinical settings					
The instructor is an enthusiastic teacher					

	Excellent	Good	Acceptable	Fair	Poor
Overall rating of Amy as an instructor					
Value of Grand Rounds					
Value of Journal Clubs					
Value of Problem-Based Learning					

Major strengths of Amy as an instructor:

Major areas where Amy could improve as an instructor:

What, if anything, would you change to improve the value of the various planned didactic activities to the NHMI residency experience (or perhaps athletic training)? Which is the most valuable to you and why?

Comments

APPENDIX 5: Resident Evaluation of AT Clinical Supervisor

Resident Evaluation of AT Clinical Supervisor

RESIDENT NAME:	Date:
Supervisor name:	

The preceptor…	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
…is an effective teacher.					
… supports and encourages development of my critical thinking ability guiding integration of new knowledge and skills into my clinical performance.					
… encourages professional verbal communication between us regarding injured athletes.					
…demonstrates professional and effective verbal communication with athletes, coaches and families.					
… supports development of my skills in effectively assessing and diagnosing musculoskeletal injuries.					
… supports development of my skills in effectively assessing and diagnosing non-musculoskeletal injuries and illnesses.					
…demonstrates commitment to patient-centered care, educating and supporting the athlete and family through the injury.					
… demonstrates professionalism in his dress and interactions.					
…demonstrates comfort interacting with physicians and other healthcare providers.					
… takes initiative to teach me and enhance my knowledge and skills with					

various conditions as they arise.					
… encourages my professional growth and development.					

Comments:

APPENDIX 6: Resident Evaluation of Research Preceptor

Resident Evaluation of Research Preceptor

RESIDENT NAME:	Date:
Preceptor name:	

The preceptor…	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
… always acts in a way that demonstrates his respect for the importance of protection of human subjects in research.					
… guides the evolution of the research question ensuring my understanding of its importance in guiding the development of the project.					
… demonstrates in words and action the importance of internal validity throughout the project.					
… supports and develops my understanding of the balance between internal and external validity in our project.					
…encourages thorough piloting as an indispensable process for development of methodology.					
…demonstrates effective recruiting and management of participants and scheduling.					
…takes an organized approach to data collection and management.					

Comments: