ORANGE COUNTY
BOARD OF EDUCATION

AGENDA ITEM ABSTRACT

Meeting Date: March 25, 2013

AGENDA ITEM No. 13-03-(2)-13

ACTION ITEM: (Y/N) N

SUBJECT: Athletic Training Report

INFO. CONTACT Dr. Marcie Holland **PHONE:** 919-732-8126

ATTACHMENTS:
1. Roles of the Athletic Trainer
2. Cedar Ridge High School Athletic Training Report 2012-2013
3. Cedar Ridge High School Injury Summary 2012-2013
4. Orange High School Athletic Training Report 2012-2013
5. Orange High School Injury Summary 2012-2013

PURPOSE: The purpose of this agenda item is to provide information prepared by the Certified Athletic Trainers regarding their programs at each of the two high schools, Cedar Ridge High and Orange High, which includes their roles and responsibilities, data regarding injuries, and services provided to students, their parents, and other stakeholders.

BACKGROUND: Two nationally certified Athletic Trainers were employed by Orange County Schools at the beginning of the 2012-2013 school year. These individuals were employed both as teachers and athletic trainers at the two high schools in the district. Attached are comprehensive reports from each of the two trainers regarding each program, their services, and injury data for the school year through January 15, 2013.

Overview of the Role of the Athletic Trainer

Certified Athletic Trainers are health care professionals who work with physicians to optimize patient participation in athletics, work and life. The practice of athletic training consists of prevention, examination and diagnosis, treatment and rehabilitation of emergent, acute and chronic neuromusculoskeletal conditions and certain medical conditions in order to minimize functional limitations and disability. In order to be eligible for certification one must complete a program accredited by the Commission on Accreditation of Athletic Training Education (CAATE) that addresses the competencies required of the profession. After completion of the program, athletic trainers must pass the National Board of Certification exam.

Also, athletic trainers participate in continuing education as part of professional practice requirements. This continuing education may result in the achievement of additional qualifications and enhanced skill sets (*Athletic Training Services*, 2010).

FINANCIAL IMPACT: The Board of Education appropriates funding to support the athletic trainers as part of the overall comprehensive athletic program in the following ways:

1. Funding for the athletic trainers teaching/trainer positions	$ 109,341 (salary & benefits)
2. Athletic Trainer Stipends	10,044

RECOMMENDATION: The Superintendent recommends the Board of Education receive this report for information.

Roles of the Athletic Trainer[1]

Athletic trainers are health care professionals who collaborate with physicians to optimize patient and client activity and participation in athletics, work and life. The practice of athletic training encompasses the prevention, examination and diagnosis, treatment, and rehabilitation of emergent, acute, sub-acute, and chronic neurological and musculoskeletal conditions and certain medical conditions in order to minimize subsequent impairments, functional limitations, disability, and societal limitations.

The clinical tasks routinely performed by athletic trainers are organized according to the five domain areas:

1. Injury/illness prevention and wellness protection
2. Clinical evaluation and diagnosis
3. Immediate and emergency care
4. Treatment and rehabilitation
5. Organizational and professional health and wellbeing

Prevention:

Injury and illness prevention comprises the majority of an athletic trainer's responsibilities. Athletic trainers are the only health care professionals with the education and expertise to help prevent a wide range of injuries and illnesses. An athletic trainer's proficiencies cover everything from minor injuries to catastrophic injuries, minor sicknesses to heat stroke, and nutrition to physical fitness. Furthermore, we are networked with a wide range of health care providers to refer athletes when necessary.

There are several skill areas that athletic trainers reference frequently to provide preventative care. They are the following:

1. Assess student athletes to screen them for potential risk factors that may predispose them to injuries and illnesses. These assessments include:
    - Reviewing pre-participation physicals
    - Flexibility, posture, endurance, and strength assessments
    - Cardiovascular fitness assessments
    - Body composition assessments
2. Design and implement conditioning programs for athletes to reduce the incidence of injury
    - For example: At Orange High School, if an athlete is injured and cannot participate in practice, they, if able, participate in a sideline conditioning program in addition to physical therapy. This program is designed to allow injured athletes the ability to maintain their cardiovascular fitness and global body strength. Therefore, when they return practice, they are physically prepared for the demands of their sport. This in turn, decreases the chance of re-injury. This also helps the athlete cope psychologically with

[1]National Athletic Trainer's Association. (2012, January). Athletic Training Services: An Overview of Skills and Services Performed by Certified Athletic Trainers.

their injury by allowing them to attend practice and feel as if they are still an active member on the team, despite their injury.

3. Design and implement a school/venue specific Emergency Action Plan (EAP).
    - The emergency action plan designed for Orange High School outlines specific steps to be followed in the event of an athletic emergency.
    - A specific and unique plan was outlined for each of the school's 13 athletic facilities. Each venue's EAP outlines the steps to notify emergency personnel, the best route for emergency services to use to quickly access the emergency location, and pertinent information that should be relayed to emergency services about the location and condition of the injured person.
    - Furthermore, 16 injuries and illnesses common in athletics were highlighted with plans to care for those injuries. These plans outline the basic signs and symptoms of each injury and the steps to care for each injury should the need arise.
4. Obtain and interpret environmental data and make appropriate recommendations for athlete safety.
    - This includes monitoring heat, humidity, lightening, and extreme cold.
    - Once real time data is acquired, recommendations are then made for the continuance, cessation, or limitations of athletic events. These recommendations are based on North Carolina High School Athletic Association, National Athletic Trainer's Association, and nationally accepted guidelines.
5. Inspect athletic facilities to ensure that they are free of hazards, are sanitary, and that equipment is maintained properly.
    - This includes keeping all equipment in good working condition, repairing/ sending equipment for repair as needed, and removing outdated and unsafe equipment.
    - Ensuring that all facilities meet OSHA standards for a medical facility. This included having the carpet replaced in the athletic training room at Orange High School to linoleum flooring. This insured that the floors could be properly and quickly cleaned in the event of exposure to blood or other bodily fluids, making it a safer environment for the athletic trainer, students, and other employees.
    - Maintaining clean and sanitized work and treatment areas,
    - Inspecting athletic facilities for potential hazards that may pose a risk to student athletes, such as wet floors, obstacles that may pose tripping hazards, or unsafe playing conditions.
6. Select, apply, evaluate, and modify prophylactic (pre-made) and protective equipment or design custom devices to protect student athletes and minimize the risk of injury or re-injury.
7. Finally, the most important aspect of prevention is education; educating student athletes, parents, coaches, administrators, other students, and teachers.
    - Educate on the roles, responsibilities, and purpose of an athletic trainer.
    - Education on concussions: signs, symptoms, new policies and procedures, what to expect when student athlete has a concussion
    - Educate on the importance of heat acclimatization and fluid/electrolyte balance

- Education on nutritional considerations for the student athlete
- Educate on injuries, the rehabilitation process, surgical considerations, and prevention of injuries

Clinical Evaluation and Diagnosis:

Before any conditioning or rehabilitative plan can be constructed for a student athlete a comprehensive evaluation and diagnosis must take place. Athletic trainers are trained to examine patients with a wide range of musculoskeletal and/or medical conditions and arrive at a differential diagnosis.

The following is a list of skills that athletic trainers reference when providing a clinical evaluation and diagnosis

1. Perform a comprehensive examination of the patient/client with an orthopedic injury or medical condition that includes:
    - Obtaining a through medical history
    - Conducting a physical examination, including: observation, palpation, functional assessment, stress testing, joint play, assessment of neurological and vascular abnormalities, and special tests.
    - Arriving at a differential diagnosis; therefore, determining functional deficits and understanding the impact on the student athlete's life for the short and long term
2. Create a treatment plan based on the findings of the evaluation
3. Communicating the nature of the findings with the appropriate personal, while respecting the student athlete's privacy

Treatment and Rehabilitation:

Based on this assessment, athletic trainers determine the appropriate treatment goals and therapeutic interventions to reduce the extent of a student athlete's disability. Athletic trainers modify the treatment plans based on continual and regular assessment of the student athlete, and discharge the athlete once treatment goals are met. Athletic trainers also recognize when consultation with other health care providers is necessary and refer accordingly.

The following is a list of skills that athletic trainers routinely use when providing rehabilitation services.

1. Select, apply and evaluate the effectiveness of therapeutic interventions using best evidence to guide those decisions, including but not limited to:
    - Manual therapy (e.g., massage, joint mobilization, proprioceptive techniques, muscle energy techniques)
    - Techniques to restore joint range of motion and muscle extensibility
    - Exercises to improve strength, endurance, speed and power
    - Proprioceptive activities to improve balance, neuromuscular control and coordination
    - Agility training
    - Exercises to improve cardiorespiratory fitness

- Sports specific and/or functional exercises
- Modalities
    - Thermal agents (e.g., hot pack, cold pack, etc.)
    - Electrical stimulation
    - Therapeutic ultrasound
    - Mechanical agents (e.g., traction)
    - Biofeedback

2. Recommend, fit and apply braces, splints and assistive devices to facilitate the patient/client's recovery.
3. Assess the student athlete's functional status, interpret the results and determine the athlete's ability to return to his or her desired activity.
4. Provide patient or client education necessary to facilitate recovery. This includes instruction in self-treatment and education about the condition and its expected course.

Cedar Ridge High School Athletic Training Report 2012-2013

Taryn Nicoletta, MA, LAT, ATC* is the head athletic trainer at Cedar Ridge High School and obtained her Bachelor's Degree from Colby-Sawyer College. Taryn obtained her Master's Degree in Exercise and Sport Science: Athletic Training is from The University of North Carolina at Chapel Hill.

This is her first year as an employee of Orange County Schools.
*MA=Master of the Arts, LAT=Licensed Athletic Trainer, ATC=Certified Athletic Trainer

Injury Report
Numbers represent incidents occurring From July 30, 2012-January 15, 2013.

See attached chart-*Cedar Ridge Injury Report*

Cedar Ridge Concussion Report
Numbers represent incidents occurring From July 30, 2012-January 15, 2013.

See attached chart-*Cedar Ridge Concussion Report*

Report on preventative measures taken to reduce injuries when working with student athletes
Emergency Action Plans are produced, distributed and explained to all coaches and athletic directors

Environmental conditions are carefully monitored during outdoor sport seasons including a wet bulb temperature reading every 30 minutes in the fall season and lightening detection and monitoring during suspected storm periods. Precautions such as more frequent water breaks and removing equipment are taken in football practices through Labor Day when wet bulb temperatures exceed 74.9° F, and certain athletes are required to weigh in and weigh out daily. If athletes lose >3% of their body weight in 24 hours or less they are ineligible to practice that day.

Athletes and parents are given information about proper hydration and concussion management and awareness at pre-season meetings.

Prophylactic taping and bracing is done for at-risk athletes.

Medical histories are examined and further information gathered from the parent and athlete if an athlete appears to be at risk for an injury or condition.

Inspection of facilities is completed on a regular basis, including but not limited to calibration and certification of equipment, cleaning of the athletic training room and associated equipment to prevent the spread of infectious disease, making sure water is available at practices and games and that all athletic areas are free of hazards.

Stretching and flexibility programs are implemented for at risk athletes that have been identified in prior steps or after recovery from an injury to prevent re-injury.

Prevention strengthening and flexibility programs may be implemented on a team by team basis in the 2013-2014 academic year based on injury data collected in the current academic year.

Rehabilitative Techniques Used

- Manual therapies including massage, joint mobilization, proprioceptive techniques
- Techniques to restore joint range of motion (ROM)
- Exercises to improve strength, endurance, speed and power
- Exercises to improve balance, neuromuscular control and coordination
- Agility training
- Sports specific and functional exercises
- Exercises to maintain cardiorespiratory fitness
- Modalities such as heat, ice, whirlpool
- Advise medications appropriate for patient and conditions
- Biomechanical assessment of patient movements and tasks to address problem areas contributing to injury
- Assessment of ability to return to participation in practice and competition
- Communication with parents about appropriate procedures and precautions and current plan of action for the athlete

Strengths of Program:

Having a full time ATC who is available during the school day.

- This gives the opportunity for on campus treatments which maximizes instructional tirne by preventing and/or decreasing physician visits. This is also an opportunity for the athletic trainer to learn student personalities and traits which play a role in response to injury and pain.
- Allows for increased communication between administration, parents and coaches as well as access to valuable information.
- Relieves coaches and administration of the burden of injury evaluation and reduces their liability by having trained personnel on campus.
- Athletic trainer has daily contact with the athlete.
- Re-assurance of parents knowing qualifications of medical professional on campus.
- Athletic trainers as educators offer kids practical experiences and the opportunity for kids to learn lifetime work skills in professional manner, which creates desirable college applicants.
- Services are provided to student athletes free of charge, saving families time and money. The Cedar Ridge High School football team has saved approximately $7,581 in medical costs by receiving athletic training treatment (American Medical Association, 2013). See attached chart; "Estimated Costs Saved by CRHS Football Players Fall 2012."

Athletic training students serve as additional eyes and hands to help with communication and awareness of injuries as well as taping and water distribution among athletes.

Decreased teaching load which decreases the burnout chances that are high in frequency among athletic trainers; 4 years according to the *National Athletic Trainers Association.*

8:18 website allows for parent and student access to online resources and forms
Re-imbursement is provided for national and state certification and licensing fees that are required in order to maintain certification as an athletic trainer.

Needs of Program:

1. Additional positions are needed to maximize coverage; Duke PT/ATC and Certified Athletic Trainer in first responder position.
2. Supplies/capital equipment is needed to maximize the efficacy of the Sports Medicine Programs. A combination ultrasound and electric stimulation unit is a valuable resource and is effective in reducing pain and recovery time with certain types of injuries and also saves families money and time as less PT appointments may be needed.
3. Other counties in North Carolina are far ahead of OCS in the policies and requirements of the ATC in the secondary school and the equipment required. The NCHSAA now recommends that wet bulb globe temperatures be taken over wet bulb temperatures, which requires a different type of psychrometer that neither school in OCS is in possession of. No official job description or expectations of the athletic trainer exist in OCS.
4. Currently the stipend for the head athletic trainer is equal to the stipend for the assistant athletic trainer/first responder. This is not the case for any other position in the district that involves a head and an assistant position and due to the time requirements of the ATC the stipend should be approximately equal to stipend of the highest paid member of the coaching staff for that season (Almquist et al, 2002). Time commitments are equal if not greater than coaches and we are responsible for all athletes during that season rather than a specific group of athletes. During the fall season, I spent an average of ***34 hours*** per week completing athletic training duties only (apart from teaching duties).
5. No policies or procedures are present to account for the weekends and holidays work by the athletic trainer that may occur during playoff seasons or over breaks from the academic school calendar. Athletic trainers are often requested to come in during months off in the summer for workouts with no reimbursement or compensation time given.
6. Funding available for continuing education. CEUs obtained by athletic trainers are unique to those obtained by teachers and are required for the maintenance of certification and licensure in athletic training.
7. Funding for classroom supplies such as tape in order to get students real-world skills and experience. These supplies can be costly but are crucial for a successful athletic training education program.
8. Funding for injury tracking software for the ease of injury tracking and reporting and data collection to identify improvement methods.

Resources

National Athletic Trainer's Association (2012). *Athletic Training Services: An Overview of Skills and Services Performed by Certified Athletic Trainers*. Dallas, TX.

American Medical Association. (2013). Retrieved from CPT Code Relative Value Search: https://ocm.ama-assn.org/OCM/CPTRelativeValueSearch.do

Almquist, J, Bagnall, D, Manista, K, Berry, J, Robinson, B, Donnell, J, Carroll, M, Peterson, B, West, M, Lennon, S & Blair, D (2002). *Position Proposal Guide for Certified Athletic Trainers in Secondary School Athletics Programs.* National Athletic Trainer's Association.

Cedar Ridge High School Injury Summary 2012-2013

Total # of significant injuries *(Sent to doctor or miss practice)*	Baseball	Basketball	Cheer	Cross Country	Football	Golf	Lacrosse	Soccer	Softball	Weight Room/PE	Swim	Tennis	Track	Volleyball	Wrestlig	Totals
Avulsion																0
Concussion		1			6			2						1	3	13
Contusion					2										2	4
Dislocation																0
Fracture		1		3	3											7
Heat Cramps					2											2
Heat exaustion				1	1							1				3
Heat Stroke																0
Illness															1	1
Infection																0
Internal Injury																0
Laceration				1												1
Puncture																0
Sickle Cell																0
Sprain		10	2		20			4						2	5	43
Strain	1	6	3	1	6			2					2		5	26
Subluxation																0
	1	18	5	6	40	0	0	8	0	0	0	1	2	3	16	100

Total # of significant injuries *(Sent to doctor or miss practice)*	Baseball	Basketball	Cheer	Cross Country	Football	Golf	Lacrosse	Soccer	Softball	Weight Room/PE	Swim	Tennis	Track	Volleyball	Wrestlig	Totals
Head		1			6			2						1	3	13
Facial																0
Oral																0
Neck		2			3											5
Back		3	1												2	6
Ribs					1										1	2
Abdomin				1												1
Hip		1			1										1	3
Groin																0
Upper Leg				1				1					2			4
Knee			1		6			3							2	12
Lower Leg		2		3												5

Ankle		10	1		10			2						2		25
Foot																0
Toes															1	1
Shoulder	1				4										3	8
Upper Arm																0
Elbow																0
Lower Arm					1											1
Wrist			1													1
Hand					2											2
Fingers		1			3											4
Total Body																0
	1	20	4	5	37	0	0	8	0	0	0	0	2	3	13	93

Concussions

Date	Sport	Event	Gender	Grade
8/16/2012	Football	N/A (fell at home)	Male	9
8/27/2012	Football	Game	Male	12
9/14/2012	Football	Game	Male	10
10/1/2012	Football	Game	Male	9
9/20/2012	Football	Practice	Male	9
9/10/2012	Football	Game	Male	9
8/10/2012	Volleyball	Game	Female	11
10/17/2012	Soccer	Game	Male	9
10/3/2012	Soccer	Game	Male	10
11/7/2012	Wrestling	Practice	Male	12
11/5/2012	Basketball	Practice	Female	11
12/4/2012	Wrestling	Match	Male	10
12/15/2012	Wrestling	Match	Male	9
8/15/2012	Soccer	Match	Male	9

Surgeries Resulting From Injury

Sport	Type of Surgery
Football	ACL Revision
Soccer	Meniscus Repair
Football	ACL Reconstruction
Football	ACL Reconstruction
Soccer	ACL Reconstruction
Volleyball	ACL Revision

Orange High School Athletic Training Report 2012-2013

Emily Gaddy, MS, LAT, ATC, PES* is the head athletic trainer at Orange High School and obtained her Bachelor's Degree from Campbell University. Emily obtained her Master's Degree in Exercise and Health Promotion with a concentration in Performance Enhancement and Injury Prevention from the California University of Pennsylvania.

This is her first year as an employee of Orange County Schools.

*MA=Master of Science, LAT=Licensed Athletic Trainer, ATC=Certified Athletic Trainer, PES=Performance Enhancement Specialist

Injury Report

Numbers Represent incidents occurring from July 30, 2012- January 15, 2013

See attached Chart – Orange Athletic Injury Report

In order to compare the rate of injuries between each sport and to national averages, the injury data had to be converted into injuries per 1000 exposures. *An exposure is defined as 1 practice or game for 1 athlete.* The following formulas were used to determine the number of exposures per sport (as of January 15, 2013) and the exposure rate.

$$Exposures = \#\ of\ athletes\ on\ a\ team \times \#\ of\ practices/games$$

$$Injuries\ per\ 1000\ exposures = \frac{\#\ of\ injuries}{\#\ of\ exposures} \times 1000$$

The following charts show the injury rates for Orange High School Athletics and provides a comparison to national averages.[1]

Sport	Exposures	Injuries	Rate of injuries per 1000 exposures
Overall	**20920**	**44**	**2.1**
Football	8370	16	1.9
Soccer	3796	1	0.2
Volleyball	1638	4	2.4
Wrestling	4209	16	3.8
Basketball	2907	7	2.4

* As of January 15, 2013

Sport	National Exposure Rate	OHS Exposure Rate
Overall	**2.5**	**2.1**
Football	4.4	1.9
Soccer	2.4	0.2
Volleyball	1.6	2.4
Wrestling	2.5	3.8
Basketball	1.9	2.4

[1]National Athletic Trainer's Association. (2005-2006). *High School RIO: (Reporting Information Online) Internet-Based Surveillance of Injuries Sustained By US High School Athletes.* NATA.

Strengths of the Athletic Training Program[2]

- Full-time secondary school athletic trainers offer the benefit of being available during the school day to assist the injured athlete with recovery by implementing the instructions from the team or personal physician for treatment of that injury. Providing these services on campus can tremendously reduce lost instructional time for the student athlete.
- Full-time secondary school athletic trainers have the benefit of knowing their students outside of athletics. This helps develop trust between the athletic trainer and the athlete, as well as the opportunity for the athletic trainer to learn the unique personalities of each student athlete. This can become invaluable when dealing with that athlete as an injured athlete, specifically concussions and their response to injury and pain.
- Increased communication between administrators, coaches, parents and physicians about the health and status of student athletes.
- Coaches and administrators are relieved of the duty of injury management – not only for emergency situations, but also to make an objective evaluation of the athlete's health status prior to his or her return to play.
- Someone is on staff that will have contact with the injured athlete on a daily basis, and the physician is more comfortable knowing that the ATC will make sure that his or her directions are followed.
- Parents are reassured that an allied health professional is looking out for the best interests of the health and safety of their child on a daily basis.
- The certified athletic trainer offers the following strengths as an educator:
    - The ability to offer broad-based instruction to high school students and staff.
    - The ability to provide classroom and related practical experiences to students interested in pursuing sports medicine careers.
    - The ability to instruct the physically active in lifetime wellness.
    - The ability to teach the value of preventive medicine and exercise fitness, now considered prime areas in today's climate of health care cost cutting.
    - The ability to instruct students in First Aid and CPR.
    - The ability to give students the opportunity to learn lifetime work skills such as appropriate communication and the ability to work in a professional manner with their peers and supervisors.
    - The ability to deliver an overview of the career opportunities within the multi-faceted health care delivery system.
    - Most colleges now require prospective student athletic trainers to complete formal preparation in sports medicine for consideration to their programs. Having taken a Sports Medicine Course in high school would greatly improve the student's chance of securing a student athletic trainer's position at a college.

[2]National Atheltic Trainer's Association. (2002). Position Proposal Guide for Certified Athletic Trainers in Secondary School Athletics Programs.

Orange High School Athletic Training Report 2012-2013

- The athletic training services and care are provided to students free of charge. Not only are these services in the best interest of the student's health, but they save the student and their families hundreds of dollars every year.

  The following chart shows typical cost of services that an athlete may encounter if they went to an outside source for the services provided by that athletic trainer:[3][4]

CPT Code	Type of Service	Medicare Reimbursement
97001	Physical therapy evaluation	$51.78
97002	Physical therapy re-evaluation	$29.22
90901	Biofeedback training by any modality	$27.28
97010	Application of a modality to 1 or more areas; hot or cold packs	$4.18
97032	Application of a modality to 1 or more areas; electrical stimulation (manual), each 15 minutes	$13.20
97033	Application of a modality to 1 or more areas; iontophoresis, each 15 minutes	$22.71
97022	Application of a modality to one or more areas; whirlpool	$16.35
97035	Application of a modality to 1 or more areas; ultrasound, each 15 minutes	$8.75
97110	Therapeutic exercises to develop strength and endurance, range of motion and flexibility; one or more areas, each 15 minutes	$22.22
97140	Manual therapy techniques (eg. Mobilization/manipulation, manual lymphatic drainage, manual traction) 1 or more regions, each 15 minutes	$20.81
29240	Strapping; shoulder	$40.35
29260	Strapping; elbow or wrist	$36.47
29280	Strapping; hand or finger	$35.79
29520	Strapping; hip	$34.20
29530	Strapping; knee	$36.95
29540	Strapping; ankle and/or foot	$25.98
97112	Therapeutic procedure, 1 or more areas, each 15 minutes; neuromuscular reeducation of movement, balance, coordination, kinesthetic sense, posture, and/or proprioception for sitting and/or standing activities	$23.15
97116	Therapeutic procedure, 1 or more areas, each 15 minutes; gait training (includes stair climbing)	$19.62
97530	Therapeutic activities, direct (one-on-one) patient contact (use of dynamic activities to improve functional performance), each 15 minutes	$24.30
97535	Self-care/home management training (use of assistive technology devices/adaptive equipment)	$24.08
97750	Physical performance test or measurement (eg, musculoskeletal, functional capacity), with written report, each 15 minutes	$23.03
97760	Orthotic(s) management and training (including assessment and fitting), upper extremity(s), lower extremity(s) and/or trunk	$26.51
95831	Limb muscle testing manual	$19.83

[3]National Athletic Trainer's Association. (2010). *Description of Physical Medicine and Rehabilitation Codes Used by Athletic Trainers.* NATA.

[4]American Medical Association. (2013). Retrieved from CPT Code Relative Value Search: https://ocm.ama-assn.org/OCM/CPTRelativeValueSearch.do

95832	Hand muscle testing manual	$18.92
95833	Body muscle testing manual	$25.95
95851	Range of motion measurements and report	$12.63
96119	Neuropsychological testing, with qualified health care professional interpretation and report;	$51.07

Table 1: Medicare Reimbursement Rate for North Carolina from the American Medical Association

- The following chart shows the comparative cost of the services provided at Orange High School for only the football team for the Fall 2012 season. The athletic training services provided saved Orange High School families the comparative value of $16,956.13. In turn, Orange County Schools was saved the potential insurance claims that could have arisen from athletes seeking these services from an outside source. These figures do not take into account the money that was potentially saved through preventative measures and conditioning programs, but purely calculates the comparative value of services rendered in response to injury and illness.

Service	# Provided	Price per Unit	Total
Physical therapy evaluation	41	$51.78	$ 2,122.98
Physical therapy re-evaluation	27	$29.22	$788.94
Ice Packs	200	$4.18	$ 836.00
Modality: Estim	28	$13.20	$369.60
Therapeutic Exercise	32	$22.22	$ 711.04
Manual Therapy	7	$20.81	$145.67
Neuromuscular Reeducation	11	$23.15	$254.65
Gait Training	4	$19.62	$78.48
Therapeutic Activities	12	$24.30	$291.60
Crutch Training (Assistive Device)	4	$24.08	$ 96.32
Physical Performance Test	28	$23.03	$ 644.84
Orthotics Management	3	$26.51	$ 79.53
Limb Muscle Testing	52	$19.83	$ 1,031.16
Hand Muscle Testing	9	$18.92	$ 170.28
Range of Motion Testing	61	$12.63	$ 770.43
Neurophysiological Testing	24	$51.07	$ 1,225.68
Shoulder Taping	2	$40.35	$ 80.70
Elbow/Wrist Taping	87	$36.47	$ 3,172.89
Hand/Finger Taping	32	$35.79	$ 1,145.28
Hip Taping	2	$34.20	$ 68.40
Knee Taping	6	$36.95	$ 221.70
Ankle/Foot Taping	102	$25.98	$ 2,649.96
Total			**$ 16,956.13**
Amount saved in potential insurance claims (20% of total)			**$ 3,391.23**

- Re-imbursement is provided for national and state certification and licensing fees that are required in order to maintain certification as an athletic trainer.

Improvement Needs/Requests

1. Requesting Athletic Training Documentation Management Software[5]

Medical record documentation is required and needed to record pertinent facts, findings and observations about a patient. This could include past and present examinations, tests, treatments, therapies and outcomes. The medical record chronologically documents the care and treatment of patients and is an important element for quality care, for legal purposes and for billing and receiving appropriate reimbursement for services. Proper documentation also ensures the various providers of service a complete and accurate picture of the patient and their illnesses/injuries.[6]

Currently, the athletic training documentation consists of paper forms (physicals, injury reports, sign in sheets, treatment logs, and supply check out) and tracking data on Microsoft word and excel generated reports. Although this system is working sufficiently, a computer based system (SportsWare) will save the athletic trainer and school system time, money, and resources. Furthermore, it will provide a more concise and efficient method or tracking services provided and injuries, as well as other information.

2. Requesting Combination Unit – Electrotherapy and Ultrasound

Electrotherapy is a form of medical treatment which utilizes small electrical impulses from different sources to stimulate the muscles, improve muscle strength, and repair tissue.

The aims of most forms of electrotherapy include:

- Increasing blood flow to the injured area, which promotes healing.
- Reducing inflammation.
- Decrease in pain.
- Break down of scar tissue and adhesions.
- Easy to use and apply, pain-free and causing no side-effects to the patient.

Currently, neither Orange High School nor Cedar Ridge High School has a combination unit. This would be of great service to our student athletes. Often this treatment is requested by physicians, but currently we are unable to provide these services. Each time an athlete must seek this service from an outside source, they could be charged up to $90. Again, if this service is requested as a result of an injury that occurred during athletics, then a potential insurance claim could be filed. Therefore each time this service is provided it is saving the families and Orange County School System money

3. Consideration for an Increase in Stipend Pay/Compensation for Holidays and Weekends

First, the dual position of teacher/athletic trainer demands a tremendous commitment of time. To compensate the teacher/athletic trainer for the extended hours beyond a regular school day, an after

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[5]CSMI Solutions. (2013). *SportsWare Online*. Retrieved 2013, from http://www.csmisolutions.com/products/injury-tracking

[6]National Atheltic Trainers Association. (2011). *Documentation and Coding Guidelines for Athletic Troiners*. Retrieved 2013, from NATA.org: http://www.nata.org/sites/default/files/Documentation-and-Coding-Guidelines-2011.pdf

school sports medicine student aid program should be considered. (This has been established at Orange High School through the sports medicine class and the first responder). Second, the athletic trainer's stipend should be approximately equal to that of the highest stipend paid to a member of the coaching staff.[7]

Currently the stipend for the head athletic trainer is equal to the stipend for the assistant athletic trainer/first responder. This is not the case for any other position in the district that involves a head and an assistant position. Due to the time requirements of the ATC the stipend should be approximately equal to stipend of the highest paid member of the coaching staff for that season. Time commitments are equal if not greater than coaches and we are responsible for all athletes during that season rather than a specific group of athletes.

No policies or procedures are present to account for the weekends and holidays work by the athletic trainer that may occur during playoff seasons or over breaks from the academic school calendar. Athletic trainers are often requested to come in during months off in the summer for workouts with no reimbursement or compensation time given.

- For instance: Already this school year, I have worked 12 holidays and Saturdays. Four of these days (Labor Day, Thanksgiving, day after Thanksgiving, and day after Christmas) were annual leave days. Annual leave was deducted for these days even though I worked on these days and received no compensatory time off or pay.

4. Suggested Athletic Training Facility Requirements[8]

The current athletic training facilities at Orange High School are too small to accommodate the number of athletes and the types of services offered. Often times there are athletes that must perform their rehabilitation exercises in the hallway due to limited space. This poses a hazard to the athletes and others using the hallway.

The following formula (from the National Athletic Trainer's Association) can then be used to determine the total square footage needed for an athletic training rrom:

$$\frac{number\ of\ students\ at\ peak\ x\ 100}{20\ athletes\ /table/day} = \text{total square footage}$$

At Orange High School, there are 21S students in the peak winter season. (Although the fall season has more athletes, it was not considered "peak" because the football players are served from the field house)

[7]National Atheltic Trainer's Association. (2002). Position Proposal Guide for Certified Athletic Trainers in Secondary School Athletics Programs.

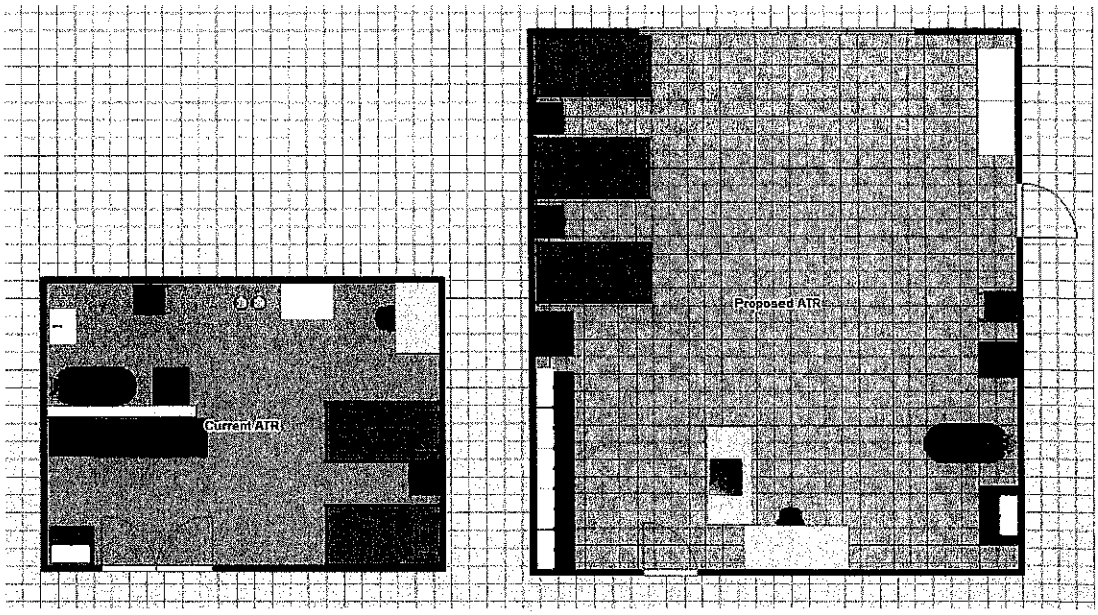
[8]National Atheltic Trainer's Association. (2002). Position Proposal Guide for Certified Athletic Trainers in Secondary School Athletics Programs.

$$\frac{215\ x\ 100}{20\ athletes\ /table/day} = 1075 \text{ total square footage}$$

The following guidelines are recommended to be included in the process of developing an athletic training facility:

1. The facilities must provide access in close proximity to practice and game facilities.
2. Male and female athletes should have equal access to the athletic training facility.
3. The facility should be easily accessible to ambulance and emergency personnel as well as for gurneys and other equipment.
4. It should be located on the ground floor with both outdoor and indoor access.
5. It should provide space for storage of supplies and equipment.
6. It should provide adequate heating, ventilation and air conditioning (HVAC).
7. It should have direct access to water and ice.
8. It should provide office space for administrative work in adjacent area. Communications such as telephones, hand radios, pagers and network data ports are an integral part of an athletic training facility and should be included in the design of the room.
9. It should have limited access when the ATC is not present.

The classroom that is currently used for that Sports Medicine classroom meets all of these guidelines currently or with a few adjustments. This room provides ample space and would allow for the athletes to be severed in a more conducive environment.



Orange High School Injury Summary 2012-2013

Total # of significant injuries *(Sent to doctor or miss practice)*	Baseball	Basketball	Cheer	Cross Country	Football	Golf	Lacrosse	Soccer	Softball	Weight Room/PE	Swim	Tennis	Track	Volleyball	Wrestling	Totals
Avulsion															1	1
Concussion		2			4									3	9	18
Contusion					2											2
Dislocation										1					1	2
Fracture		1			3			1		1					1	7
Heat Cramps																0
Heat exaustion																0
Heat Stroke																0
Illness																0
Infection																0
Internal Injury																0
Laceration		1														1
Puncture																0
Sickle Cell					1											1
Sprain		2	1		5									1	3	12
Strain		1			1											2
Subluxation																0
	0	7	1	0	16	0	0	1	0	2	0	0	0	4	15	46

Total # of significant injuries *(Sent to doctor or miss practice)*	Baseball	Basketball	Cheer	Cross Country	Football	Golf	Lacrosse	Soccer	Softball	Weight Room/ PE	Swim	Tennis	Track	Volleyball	Wrestlig	Totals
Head		2			4									3	9	18
Facial		1														1
Oral															1	1
Neck					1										1	2
Back																0
Ribs																0
Abdomin																0
Hip		1														1
Groin					1											1
Upper Leg					1											1
Knee		1			1										2	4
Lower Leg					1			1								2
Ankle		1			1					1						3
Foot																0
Toes																0
Shoulder					3									1	2	6

Upper Arm																	0
Elbow																	0
Lower Arm										1							1
Wrist		1	1														2
Hand					1												1
Fingers					1												1
Total Body					1												1
	0	7	1	0	16	0	0	1	0	2	0	0	0	4	15		46

Concussions

Date	Sport	Event	Gender	Grade
8/27/2012	Volleyball	Practice	Female	12
9/5/2012	Football	Practice	Male	10
9/11/2012	Wrestling	Practice	Male	9
9/13/2012	Football	Game	Male	10
9/25/2012	Football	Practice	Male	9
10/4/2012	Volleyball	Game	Female	12
10/4/2012	Volleyball	Game	Female	9
10/18/2012	Football	Game	Male	9
11/16/2012	Wrestling	Practice	Male	9
11/28/2012	Wrestling	Practice	Male	9
12/5/2012	Wrestling	Practice	Male	9
12/11/2012	Basketball	Game	Female	11
12/11/2012	Basketball	Game	Female	9
12/11/2012	Wrestling	Practice	Male	10
12/11/2012	Wrestling	Practice	Male	12
12/12/2012	Wrestling	Practice	Male	11
1/5/2013	Wrestling	Game	Male	12
1/8/2013	Wrestling	Practice	Male	9

Surgeries Resulting From Injury

Sport	Type of Surgery
Football	Shoulder Reconstruction
Wrestling	Oral - Tooth Implant
Wrestling	Meniscus Repair
Wrestling	Meniscus Repair
Basketball	Scaphiod ORIF
PE	Ankle Reduction
PE	Forarm ORIF
Soccer	Tib/Fib ORIF
Wrestling	Shoulder Reduction
Football	SLAP (Shoulder) Repair