2017-18 University of Nebraska Athletic Medicine Head Injury Management Protocol

The University of Nebraska-Lincoln (UNL) Department of Athletics takes the health and well-being of our student-athletes very seriously. In developing the following Head Injury Management Protocol, the institution reviewed the requirements of NCAA Bylaws 3.2.4.18 and 3.2.4.18.1 and the Concussion Safety Protocol Checklist distributed by the NCAA. The resulting protocol helps protect student-athlete health and well-being and provides the Athletics Department's medical providers with the authority and professional discretion to act in the best interests of the student-athlete. Head injuries, like concussions, are inherently unpredictable and can occur despite safeguards and best practices employed by those responsible for coaching and providing medical care to student-athletes. When head injuries occur, the Head Injury Management Protocol will provide a plan that helps protect the student-athlete and provides unquestioned authority to the medical providers to diagnose and treat the student-athlete. The Head Injury Management Protocol also recognizes the important role academic services plays in supporting the student-athlete's academic responsibilities and follows campus protocols regarding how students with cognitive disabilities are treated.

Education

All student-athletes receive a copy of the "NCAA Concussion Fact Sheet for Student-Athletes" (also available on the NCAA.org website). Student-athletes are provided an opportunity to ask questions and seek clarification from Athletic Medicine staff regarding the fact sheet. Student-athletes receive and are asked to sign a Shared Responsibility for Sports Safety Form which acknowledges the expectations, risk, and that this information was discussed.

Athletic Medicine staff, which include Athletics Trainers Certified (hereinafter "ATC") and the Associate Athletics Director for Athletic Medicine/Head Team Physician (hereinafter "Head Team Physician"), receive and review copies of the "NCAA Concussion Fact Sheet for Student-Athletes" and the "NCAA Concussion Fact Sheet for Coaches."

ATCs provide the "NCAA Concussion Fact Sheet for Coaches" to all coaches. ATCs and coaches sign an acknowledgement form documenting the date the concussion information was reviewed by the ATCs and coaches. The Head Team Physician confirms in writing receipt and review of the "Concussion Fact Sheet for Student-Athletes" and "Concussion Fact Sheet for Coaches."

The Director of Athletics receives the "Concussion Fact Sheet for Student-Athletes" and the "Concussion Fact Sheet for Coaches" prior to certifying the institution's Head Injury Management Protocol. The Director of Athletics' written certification of the protocol serves as acknowledgement of receipt of the Concussion Fact Sheets.

Student-Athlete Medical History & Physicals

All student-athletes are asked to provide their personal history of head injury and concussions, at the time of pre-participation physicals. Details of previous head injury and/or concussions are reviewed with the student-athlete.

All student-athletes receive a one-time baseline evaluation. Evaluations include brain injury and concussion history, symptom evaluation, cognitive assessment, balance evaluation, and mood assessment. The symptom evaluation consists of twenty-two questions included in the ImPact neurocognitive test that student-athletes complete. The cognitive assessment occurs as part of the ImPact test. The balance evaluation consists of the C3 Logix Balance application. The Head Team Physician may have student-athletes undergo additional testing or meet with a neurologist depending on the student-athlete's baseline assessment. The Head Team Physician determines pre-participation clearance.

Response to Injury & Initial Assessment

Consistent with their professional licensure and the applicable state practice act, medical personnel with training in the diagnosis and/or recognition and evaluation, treatment and initial management of head injuries, including acute concussions, are available (at the practice site, at the practice site's campus, or electronically via telephone, text messaging, or email) at practices for a variety of sports, including, but not limited to: football, men's basketball, women's basketball, pole vault, women's soccer, and wrestling.

Consistent with their professional licensure and the applicable state practice act, medical personnel with training in the diagnosis and/or recognition and evaluation, treatment, and initial management of head injuries, including acute concussions, are present (either at the competition site or the competition site's campus) at competitions for a variety of sports, including, but not limited to: football, men's basketball, women's basketball, pole vault, women's soccer, and wrestling.

Immediately upon suspicion or indication that a student-athlete has sustained a head injury the student-athlete is removed from the contest or practice session. An ATC (or physician) with concussion experience conducts a symptom review, completes a physical exam, neurological exam, and clinical assessment for cervical spine trauma, skull fracture, and intracranial bleed, assesses cognitive function, and balance, as appropriate, based on the student-athlete's symptoms. If the student-athlete's response to this initial assessment reveals symptoms or cognitive features consistent with a concussion the student-athlete is referred to a physician. A student-athlete diagnosed with a concussion is precluded from returning to athletics activity (e.g., competition, practice, and conditioning sessions) for at least the remainder of the calendar day.

Student-athletes with worsening mental status or other neurological symptoms (such as Glasgow Coma Scale < 13, spine injury, prolonged loss of consciousness, focal neurological deficit suggesting intracranial trauma, repetitive emesis, and persistently diminished/worsening mental status or other neurological signs/symptoms) are referred for immediate follow-up medical care.

Physician Assessment and Care Plan Following Initial Assessment

After the initial assessment, the physician to which the student-athlete has been referred, obtains a neurologically oriented history and physical exam and records the findings in the student-athlete’s medical record. The student-athlete’s condition continues to be evaluated and monitored after the injury.

If the student-athlete's condition is considered stable a responsible individual (generally a roommate or relative of the student-athlete) is asked to remain in the student-athlete's presence for a determined time (usually 12-24 hours), and to agree to report any observed confusion, increasing headache, excessive drowsiness, or any other symptoms of concern to the Head Team Physician. A copy of the head injury form is provided to the student-athlete which includes the contact numbers (cell and home) for the Head Team Physician.

A parent (or parents) will be notified of the injury and asked if the parent is comfortable with the care plan.

A student-athlete with a prolonged recovery is evaluated by a physician so that additional diagnoses and best management options are considered. Possible additional diagnoses include, but are not limited to: post-concussion syndrome, sleep dysfunction, migraine or other headache disorders, mood disorders such as anxiety and depression, and ocular or vestibular dysfunction. Furthermore, student-athletes with severe head injuries or post-concussive symptoms lasting more than a few days are referred to a neurologic specialist with experience in managing sports related concussions.

Student-athletes are informed that omega-3 supplements may be of benefit in supporting cellular recovery post-concussion and are encouraged to consider omega-3 supplementation.

Follow-up and Release for Return to Play

Following the care plan, the student-athlete’s symptoms and cognitive function continue to be monitored and assessed. A neurocognitive test is postponed if the student-athlete has symptoms which would potentially be aggravated by, or interfere with, performing the concentration and reaction time tests which are integral to the neurocognitive test.

If the student-athlete has significant symptoms, rest is advised. The student-athlete's condition is followed on a daily basis.

Prior to a release to return to play the student-athlete must complete a computerized neurocognitive test and attain scores at or above the baseline test. The Head Team Physician checks for any neurologic dysfunction and repeats a balance test. Upon satisfying the Head Team Physician that the student-athlete’s neurologic state has returned to normal, the student-athlete is released to a graduated return to activity that is supervised by a health care provider with experience working with student-athletes with head injuries and concussions.

The stepwise progression after the student-athlete returns to physical and cognitive baselines includes: (1) light aerobic exercise without resistance training; (2) sport-specific exercise and

activity without head impact; (3) non-contact practice with progressive resistance training; (4) then unrestricted sport activity training. Progression from one step to the next is allowed if the student-athlete does not have worsening or new symptoms. If the unrestricted sport activity training is tolerated without worsening or new symptoms, the student-athlete is allowed to return to full sport participation and competition. The final return-to-play decision is made by the Head Team Physician.

Academic Considerations: Return-to-Learn

When a student-athlete is diagnosed with a concussion, a return-to-learn management plan will be created, and the student-athlete may require academic modifications. The Head Team Physician will contact the Associate Director for Academic Programs. The Head Team Physician and Associate Director for Academic Programs will coordinate the return-to-learn management plan. They will solicit input, as needed, from the consulting neurologist, sports psychologist/sports psychiatrist, Senior Associate Athletics Director for Academic Services, Academic Counselor for the appropriate sport, and staff from the Office of Services for Students with Disabilities. This multi-disciplinary team will especially be engaged in those more complex cases of prolonged return-to-learn.

If a student-athlete experiences post-concussive symptoms that are expected to be very brief, the Associate Director for Academic Programs will contact the student-athlete's course instructors informing them of the student-athlete’s condition, class absences, and possible academic modifications that are warranted. The student-athlete will be withheld from classroom activity on the same day a concussion is diagnosed.

If a student-athlete experiences post-concussive symptoms lasting more than a few days, the Associate Director for Academic Programs will contact the Director of Services for Students with Disabilities (or designee) regarding the student-athlete’s condition. The Director of Services for Students with Disabilities (or designee) will work with the student-athlete to determine if academic accommodations through Disability Services are warranted and will engage the Office of Services for Students with Disabilities for cases that cannot be managed through schedule modification and academic accommodations. Accommodations approved by the Office of Services for Students with Disabilities will be implemented in accordance with the Americans with Disabilities Act as amended (ADAAA).

The student-athlete’s individualized initial return to learn plan states that the student-athlete should remain at the student-athlete’s home/dorm if the student-athlete cannot tolerate light cognitive activity. Once the student-athlete can tolerate 30-45 minutes of cognitive activity without return of symptoms, the student-athlete will gradually return to classroom activity, initially attending classes so that there is less than 60 minutes of classroom activity followed by rest of 15 minutes or more. For classes that are longer than 60 minutes, the Associate Director for Academic Programs will communicate with the student-athlete’s course instructor so that appropriate classroom breaks are implemented to account for the student-athlete’s condition and cognitive tolerance levels at that time. The student-athlete will work with the Head Team Physician and the Associate Director for Academic Programs during the stepwise

return to class process. The Associate Director for Academic Programs will continue to communicate with the student-athlete and course instructors throughout this process so that appropriate class modifications are implemented.

The student-athlete will be reevaluated by the Head Team Physician if the student-athlete's concussion symptoms worsen with academic challenges. The student-athlete will be also re-evaluated by the Head Team Physician and the multidisciplinary team, as appropriate, when symptoms last longer than two weeks.

Reducing Exposure to Head Injuries

The Athletics Department adheres to the Interassociation Consensus: Independent Medical Care for College Student-Athletes Best Practices. The Athletics Department also takes steps to help reduce student-athletes' potential exposure to head injuries. For example, practice activities are conducted consistent with NCAA rules and compliance with these rules is monitored by the Athletics Department's Compliance Office. Coaches shall teach proper practice techniques aimed at reducing exposure to head injuries.

Using the Catapult GPS program, practices in football, women's soccer, men's basketball, and women's basketball are monitored for duration and student-athlete load (a measure of the student-athlete's physical exertion). As a result, practices may be shortened to reduce physical wear on student-athletes. The football program also adheres to the Interassociation Consensus: Year-Round Football Practice Contact Recommendations.

Athletics Department equipment staff members monitor the condition of football helmets, sending identified helmets to the manufacturer for refurbishment and purchasing some new helmets each academic year. The equipment staff also works with each student-athlete to make sure the student-athlete's helmet fits properly.

The Athletics Department collaborates with the UNL's Center for Brain, Biology, and Behavior on research and testing that seek to reduce the exposure to head injuries by student-athletes and the general public.

The Big Ten Conference stations an independent ATC in the video replay booth to monitor the game activity and have the ability to communicate directly with officials on the field.

Review of Head Injury Management Protocol

The Athletics Department will review its Head Injury Management Protocol annually and will meet at least once per year to discuss head injury cases that occurred during the academic year. This annual review will include review of the protocol for the identification, removal from game or practice, and assessment of student-athletes for possible concussions. Existing and revised Head Injury Management Protocol will take into consideration best known practices, Inter-Association Consensus: Diagnosis and Management of Sport-Related Concussion Guidelines, and other applicable Interassocation Consensus documents.

Certification of Compliance

The Director of Athletics will annually certify written compliance with the Head Injury Management Protocol.

Effective Date of Head Injury Management Protocol: May 1, 2015; Revised June 7, 2016; Revised April 21, 2017