Injury Surveillance System to include field conditions

By J.T. Brosnan, R. Dick, & A.S. McNitt

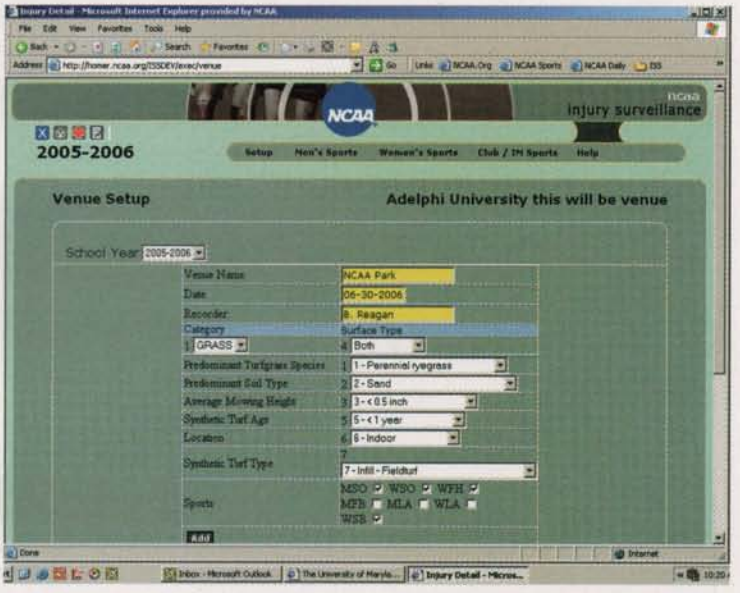
Beginning this fall, collegiate sports turf managers and athletic trainers will collaborate to track and ultimately reduce player injuries using the new web-based NCAA Injury Surveillance System (ISS). Athletic trainers will now be collecting additional information about playing surfaces that will be coupled with athletic injury data to create a national database listing the types of injuries occurring on various surfaces.

Athletic trainers and the NCAA have collaborated for 25 years through the NCAA ISS to create the largest ongoing collegiate sports injury database in the world. The primary goal of the ISS is to collect injury and exposure data from a representative sample of NCAA institutions in a variety of sports.

The data is used to assist NCAA sports rules committees to make decisions on rules and policy. The information also has been used for policy decisions outside of collegiate athletics that benefits the larger sports medicine community.

The conversion of the ISS from a paper-based to a web-based format in 2004 allowed the system to collect data on all NCAA championship and emerging sports (e.g. women's rugby) as well as approximately 50 club/intramural activities. Athletic trainers provide details on time-loss injures that occurred in an organized practice or game. They also collect exposure data to describe the situation in which the injury occurred. Traditionally, minimal detail about the playing surface has been collected beyond designating the field as either synthetic or natural turf.

Over the past year, The Penn State Center for Turfgrass Science has worked with the NCAA to further expand the amount of information collected about the playing surfaces used in soccer, lacrosse, field hockey, and football. Recognizing the limitations of some athletic trainers in collecting more detailed playing surface information, the Center assisted in designing a user friendly "Venue Descriptor page" that could be easily completed by the athletic trainer with assistance from the sports turf manager (see figure).



Athletic trainers will be asked to fill out a Venue Descriptor page for each field used for home games and practices with data provided by the sports turf manager. To complete the page, a unique identification for the field is created; this identification will be kept confidential. Fields might be identified as "Football 1" for example. A set of descriptive information about the field will then be saved under this identifying label within the Venue Descriptor page. Thus, when an injury occurs on "Football 1" or "Field Hockey 3," information about that field will automatically be linked to the athletic injury information submitted to the database.

For natural turfgrass fields the predominant species of turfgrass, the height of cut, and the predominant soil type will be documented. Turfgrass species choices include: Kentucky bluegrass, perennial ryegrass, tall fescue, bermudagrass, zoysiagrass, or other. The height of cut

will be described as less than 0.5 in., 0.5-1.0 in, 1.0-1.5 in, 1.5 - 2.0 in, or greater than 2.0 in. Finally, the predominant soil type categories include: sand based, native soil (non-sand), sand cap, or other.

Specific information captured about the synthetic turf fields will include the age of the field, its location, and the type of synthetic turf used. Fields will be categorized as less than 1 year, 1-2 years, 2-3 years, 3-4 years, or greater than 4 years old as well as indoors or outdoors. The type of synthetic turf will be described as, for example, "Infill-Fieldturf," "Infill-Sportexe," "Non-Infill-Astroturf," etc.

As data begins to accumulate, this additional information will expand the knowledge base of playing surfaces and their relationship to injury. Eventually one could use the system to compare such things as the number of injuries throughout all NCAA sports on various

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species of turfgrass, different rootzones, different types of infill systems, etc. In time, the enhanced ISS system will allow our industry to improve the safety and playability of all surfaces. In addition, it will strengthen relationships between the various professionals working in the athletic department, encouraging them to take a team approach to improving the overall quality of the athletic program.

The NCAA Injury Surveillance System is available at no cost to any NCAA member institution and currently almost 200 schools are using it. For basic injury and exposure data collection, including a one-time entry of venue information, the time commitment for data collection is 10-15 minutes per week per sport. If you are not already participating in the ISS, please contact your athletic trainer if interested. You can receive more information and your school's unique log-in information by contacting the ISS staff at (317) 917-6367. More general information on the system can be obtained at www.ncaa.org/iss. Application of this data collection platform for organizations outside the NCAA also is being considered.

The NCAA Injury Surveillance System has a strong track record. The program's expansion to include more detailed surface conditions encourages better communication between the sports turf manager and the athletic training staff. If the athletic trainers knock on your door for assistance with this project, please take five minutes of your time to provide them with information that will benefit everyone; athletic trainers, sports field managers, and especially the student-athletes.

J.T. Brosnan is a doctoral candidate in the Department of Crop and Soil Science at Penn State; Randall Dick is associate director of research/Injury Surveillance System for the NCAA; and Dr. Andy McNitt is a professor of soil science and turfgrass at Penn State. ■