The Use of Apps in Athletic Training, Part I: Applications for Sideline Management

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The use of mobile devices in a variety of clinical practices has become commonplace in recent years.3–6 To enhance the traditional uses of mobile devices, many software developers are creating software applications (apps) to aid clinicians. Apps are programs written specifically for mobile phones or tablets. These programs perform specific functions for the user through a touchscreen interface. Currently, there are around 10 billion connected devices on the market.7 Therefore, it is no surprise that approximately 50 billion apps were downloaded between the Apple App Store (Cupertino, CA) and the Android Market (now Google Play; Mountain View, CA) in 2012 alone.8 Apps developed specifically for assisting in clinical practice can aid the clinician with information and time management, access and maintenance of health records, communication, consulting, reference and information gathering, clinical decision-making, patient monitoring, and medical education and training.9 Currently, specific literature regarding the use of apps in athletic training is lacking.

The demands of the athletic trainer are many.10–12 These demands are outlined in the Board of Certification’s BOC Role Delineation Study/Practice Analysis1 and are organized into five performance domains (Table 1). The numerous tasks expected of the athletic trainer are often cited as barriers to continuing education,10 implementation of evidence-based practice,11 and work-life balance.12

Although apps are designed to assist users with more efficient or effective task management, there are many apps on the market and finding the right one to help achieve a desired task can be overwhelming. Furthermore, not all clinicians are familiar or ready to accept the integration of this type of technology in the clinical setting. Therefore, the purpose of this two-part series is to introduce athletic trainers to select apps that can be useful in the clinical setting in the effort to assist athletic trainers in developing
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A more positive outlook of their use. Although athletic trainers’ perceptions toward the use of technology in the clinician setting are unknown, the goal remains to increase awareness of athletic training specific apps and provide knowledge of their application in the effort to facilitate usage.

Part I of the series focuses on apps the athletic trainer may find useful in assisting with their daily duties (e.g., monitoring severe weather, management of injuries and conditions) on the sidelines during practices, games, and other events, while part II focuses on apps useful in the athletic training clinical setting. Specifically, part I focuses on the first three domains set forth by the BOC Role Delineation Study and apps that aid in fulfilling the duties included in these domains. Part II then focuses on the last two domains and complementary apps.

### How We Selected Apps

The authors reviewed and selected apps based on informal, nonsystematic conversations with colleagues and students who were asked to share their favorite or most useful apps. The authors did not anticipate this would be generalizable to a broad population of athletic trainers, but gradually came to realize this information may be useful to the athletic trainer working in a clinical setting. All of the apps below can be found by searching the Internet by name and publisher, or by searching the Apple App Store or Google Play.

Information included in this article was current as of September 2014. Apps are updated frequently; therefore, some information provided may have changed since publication. A description of each app is listed, along with a brief synopsis of suggested uses.

### Additional Information

Additional information such as cost of the app, size of the download, and consumer ratings, if available, are also included. This article was not designed as a cumulative list of all available apps since new apps are created daily.

### Domain I: Injury/Illness Prevention and Wellness Protection

Performance domain 1 of the BOC Role Delineation Study emphasizes various aspects of prevention. Part of the athletic trainer’s responsibility is to protect the safety of the physically active, helping to keep them active. One part of this domain includes minimizing risks associated with environmental conditions, specifically monitoring extreme temperatures related to heat illness, injuries due to performing in cold environments, and lightning risks.

The National Athletic Trainers’ Association (NATA) position statement on lightning safety for athletics and recreation recommends a multipronged approach for monitoring the weather during events that includes (1) establishing a lightning-specific emergency action plan (including identifying safe shelters, first aid requirements, and personnel notification) and (2) maintaining awareness of the lightning and general weather.

There are many weather apps on the market that offer features such as Doppler radar and real-time lightning strike data, designed to help assist in keeping people safe in the event of severe weather. The examples of weather apps (see Table 2) listed next provide up-to-date, location-specific information for the athletic trainer to use at home or while traveling to make informed decisions regarding safe participation. With use of these apps, the athletic trainer can effectively monitor the safety of participants as outlined in the position statement, while also attending to clinical duties as needed.

### Apps to Assist With Lightning Safety in Outdoor Sports

**Lightning Finder.** Description of Function: Lightning Finder (Black Box Development, Melbourne, FL) incorporates data from the North American Precision Lightning Network (NAPLN). This network uses sensors that triangulate lightning strike data and then redistributes it to the mobile app. The app allows the user to receive notification of lightning strikes via text message. Data are available with a > 1 min latency.