Choosing the Right Athlete
Electronic Health Record System

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Introduction

Behind every great athlete, stands a team of great medical specialists closely monitoring and managing their health to ensure their competitive status. However, with so many people working collectively to ensure peak athletic performance, there is a huge amount of health data being generated that needs to be stored and shared. Traditional paper files and desktop computer programs are no longer sufficient to support the sharing of data and collaboration that needs to happen to ensure effective treatment decisions are made. Fortunately, there are great tools available to help sports organizations manage health information. At the forefront are Athlete Electronic Health Record systems, specialized EHR systems designed with the needs of sports organizations in mind. These comprehensive systems go beyond traditional injury tracking programs to support a level of athlete healthcare previously unattainable.

The topic of Electronic Health Records (EHRs) has been thrust into conversations across the U.S. since the Obama administration passed the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 that provides financial incentives of up to $63,750 for each physician working in an clinic and up to $2 Million for each hospital that implements an accredited EHR. This remarkable investment is a reflection of policymakers’ conviction that information systems can have an enormous impact on improving healthcare and reducing long-term costs.

While athletic organizations and schools cannot apply for HITECH subsidies, the concept of using EHR technology to improve medical outcomes and health applies equally well. This is especially true considering the close relationship between athlete health and competitive success within all levels of amateur and professional sport. Fortunately, Athlete EHRs are not nearly as expensive as the kind of systems typically purchased by hospitals and are much better suited for sports organizations, schools and clinics that provide healthcare to athletes.

In this whitepaper, we will help you identify what to look for in an Athlete EHR and in a vendor. In Part 2 of this series, we will provide you with the information you need to begin to put together an ROI analysis and prepare a business case to help you justify the purchase of an Athlete EHR. In Part 3 we will discuss how to prepare your organization for the transition to your selected system.
What Makes an Athlete EHR Unique

In its most basic form, an EHR is simply an electronic record of a patient’s health information. It normally includes demographic and insurance information, medical history, diagnoses, treatments, surgeries, medications, imaging, labs and other medical tests. The purpose of an EHR is to provide a standardized format to capture and display all of this information and to centralize the collected medical data so that it can be securely managed and shared by multiple people. Most EHR systems are not well suited for people who provide healthcare to athletes. This is because the type of collaborative care that is considered to be best practice within sports organizations is very different from the care that is provided within a hospital setting. In a sports organization, coaches, athletic trainers, nutritionists, physical therapists and team physicians all play a role but need different tools and levels of access.

Another thing that differentiates an Athlete EHR from a typical EHR is the emphasis on tracking not just what the medical symptoms are but also the circumstances that surround an injury – such as the playing surface, weather conditions, equipment the athlete was using, prior exposure history and the other players involved – so that the data can be used to analyze trends and formulate injury prevention strategies. In the same way, sports organizations are interested in tracking not just medical interventions, but all of the ways in which a particular injury will be treated, including therapeutic and conditioning exercises, massage and passive stretching.

The importance of access over the Internet is sometimes more important in a sports setting, as athletes are often injured and treated while on the road. A web-based application lets staff capture and review medical information in real time from any location.

At a high level, an Athlete EHR should allow your organization to:

- Attain a higher level of collaboration among the medical team
- Provide anywhere, anytime access in order to accurately capture data and make timely and informed decisions
- Streamline injury tracking and treatment processes in order to expedite return to competition
- Easily review an athlete’s complete medical history in the clinic or on the road
- Report on injury, incident and other data to identify trends and outcomes
Getting Ready to Look

Regardless of the size of your organization, sports team or medical clinic, whether or not to go digital is a question everyone should be asking themselves. One of the first things you must do before shopping for an Athlete EHR vendor is to establish what kind of buyer you are and what kind of system would best suit your needs. Are you a specialist with unique requirements, a small practice looking to computerize your operations, or a large organization focused on improving efficiency? Clearly list out your requirements and discuss these with your team to identify shared needs and goals. By establishing a deep understanding of these early on, you will have more confidence when making decisions as you move forward.

How to Choose the Right System

Selecting a vendor and a system can be a challenging proposition, especially if this is the first time you will be using an Athlete EHR. Many people are unsure of what exactly they should be looking for or what to expect. The following section will review some of the factors you should be considering when evaluating a potential system.

SaaS vs. Client-Hosted

In the past, vendors required their customers to install software on local servers or directly on each computer. Furthermore, most systems would run on only one platform, either Windows or Macintosh. Today, however, it is possible to use systems on a Software as a Service (SaaS) basis, where the software vendor hosts and maintains the system and you simply access it over the Internet using your web browser. This allows you to access your data no matter where you are, without having to install any software on your computer or device.

Under the SaaS model, you do not have to purchase the software up front, but rather lease it on a monthly or annual basis. This reduces your upfront costs, means you do not need assistance
from your IT group to support the system and ensures you always have the latest version of the software.

One thing that you should verify is that you still own your data and that it can be exported from the system in the event that you ever need it.

**Product Breadth**
A comprehensive Athlete EHR will provide the ability to record and track a wide variety of personal, sport and health information. This can include emergency contact information, sport profiles, insurance information, diagnoses, inoculations, physician encounters, physical therapy treatments, medical notes, surgeries, prescriptions, allergies, medical alerts and more. Some systems also offer the ability to create a medical case that allows you to track related information, such as the notes, tests and treatments stemming from a single incident or related to a particular injury or diagnosis.

When you are evaluating different products, you should verify that the majority of the information that you want to track is already available within the system out of the box. At the same time, remember that each sports organization is unique and that you may need to have some additional features configured so that the solution can meet your needs. For this, it is important to find a system that can be extended. Some of the best systems allow you to add fields or even entirely new screens in order to keep track of additional information.

**Ease of Use**
To ensure that your selected system will be accepted and used to its full potential throughout your organization, it is important that it be easy to learn and easy to use. First time users should be able to quickly and correctly figure out how to search, navigate and use the various tools offered. Basic features such as finding an athlete, reviewing medical history and adding an injury record or treatment should be so easy that they do not require formal instruction or training.
Knowing that rapid access to health information is of the utmost importance when treating athletes, you should look for a system that minimizes the clicking required to navigate within an athlete's record and from one athlete to another. Further, once you have selected an athlete, all of the important information should be immediately visible. Improving access to an athlete's data enhances collaboration and coordination. For example, when a doctor is with a patient, he or she should be able to quickly see a complete medical history, including the treatments and notes provided by other physicians, physical therapists and athletic trainers. In some systems, you can even configure the type and the order of the information that is displayed on screens so that it directly responds to the needs of each user type.

It is also useful to look for tools within the Athlete EHR that speed up documentation so that you can spend more time focusing on your athletes. Some systems allow you to enter treatments on multiple athletes at the same time, enabling you to treat more athletes at once. Systems that allow you to insert templates also assist with faster, more efficient documentation.

**Collaboration and Communication Tools**

To be effective, an Athlete EHR must be more than just a storage system – it has to provide a way for multiple contributors to review and collaborate while taking care of an athlete's health. Systems that are web based and share information in a centralized database allow users to communicate in real time no matter where they are. This not only increases accessibility, it enhances collaboration.

Regular email cannot be considered secure and should not be used to share confidential medical information. This means that an Athlete EHR needs to have internal messaging so that sensitive information can be securely shared among users in real time. The system should also provide a means of automatically alerting users when there have been changes in an athlete's condition.

**Security and Privacy**

The highest level of security is required when managing sensitive health information. Systems must be designed from the ground up to be secure and to support compliance with privacy and security measures set out by governments and industry associations. For example, medical practitioners in the
U.S. must abide by the Health Insurance Portability and Accountability Act (HIPAA), which sets out strict regulations regarding who can see and receive a patient’s health information and provides standards for electronic transfers of health data. While compliance with HIPAA and other legislation remains the responsibility of caregivers, using the right software can assist with their compliance efforts. The more recent HITECH Act has called for several changes to be made to HIPAA and has widened the extent of the security and privacy protections it entails.

In order to be compliant with privacy regulations, an Athlete EHR needs to support both role and group-based security. Role-based security defines what types of data and what functions the user can access while group-based security defines which athletes the user has access to. In general, the rule is that a user should only see the information they need to in order to perform their job. For example, as the football team’s doctor you have access to all of the football players’ medical information but cannot access the records of the hockey team’s players. Meanwhile, the athletic trainer for the football and hockey teams has access to the athletes’ data on both teams but may only see summary medical information. This kind of security increases confidentiality and privacy and saves users time as there is no need to scroll through unnecessary information.

**New Minimum Penalties for HIPAA Violations**

- For violations of which the offender was not aware, minimum $100 fine not exceeding $50,000 with a maximum collective penalty of $1.5 million annually
- For violations with reasonable cause, minimum $1,000 fine not exceeding $50,000 with a maximum collective penalty of $1.5 million annually
- For violations due to willful neglect, minimum $50,000 penalty for each violation with a maximum collective penalty of $1.5 million annually

Certain systems also provide additional security levels, especially useful when highly confidential information is being exchanged. These may include the ability for users to limit access to a specific record or medical note, for example a psychological assessment, to a small list of explicitly authorized users.
Reporting

Reporting tools should allow you to identify trends, track injuries and treatments, and measure outcomes. This can enable early intervention when injuries occur and can assist with the creation of proactive injury prevention strategies and more effective treatment processes. Reporting tools also provide an easy way to view and share summary information such as the health and injury status of all players on a team or related to a particular injury. This information can then be shared with third parties, such as outside medical staff.

In some systems, you only have access to a set of standard reports. Look for systems that have a report “writer” that allows you to create your own reports. It is important that the report writer includes the kinds of filters you need – such as reporting by team, sport or type of treatment – and that you can select the specific types of data you would like to include in the report. You should also see if reports can be exported to CSV or XML format, so that you can open them with Microsoft Excel or a statistical analysis program to do further analysis or graphing. Some systems offer integrated dashboard components that provide a graphical overview of your data, which makes it much easier to identify hot issues or trends at a glance.

Finally, make sure that the reports and dashboards are accessing current data rather than a copy of a previous day’s data so you can address issues in real time and be proactive rather than reactive.
**Configurability vs. Customization**

No two organizations are the same. Whether you are examining the user interface, the types of information you can store or the security model, Athlete EHRs needs to be able to extend to meet your unique requirements. The best systems offer high degrees of configurability, allowing the users to flexibly tailor the system to their specific needs, including screen layouts, field labels, drop-down lists and dashboards. The more configurable a software application is, the more likely it will meet your needs long term.

You may hear software vendors talking about configurability and customization and it is important to understand the distinction between these terms. Configurability is done using standard tools within the software that let users or the vendor’s professional services team modify the user interface on the fly. Customization on the other hand means that the software code itself must be modified, so software development is required. Customizations must be done by the vendor and almost always entail additional costs and delays. Another factor to consider is that customizations done for your organization may not be supported in future versions of the vendor’s software and can complicate future upgrades. For these reasons, a higher level of configurability is often more appealing than the option to customize the application.

Finally, when looking at configuration tools, find out if the changes you make are reflected throughout the system. If you add fields to a certain page for example, can you use them as filter criteria when generating reports?

**Scalability**

You want a system that will grow with you, not only when adding new features or making configuration changes as your needs evolve, but also when adding users and data volume. The ability to grow with increasing volume is commonly referred to as "scalability." You need to ensure you purchase a system that has a proven track record of supporting the number of athletes and users that you expect. Scalability is most essential for those with large medical teams on hand.

Based on the preceding points, you should now be able to highlight your specific requirements in order to get a big picture view of the kind of system you need.
How to Choose the Right Vendor

Qualifying the vendor is just as important as ensuring that the product’s features match your needs. Selecting a vendor that is forthcoming with advice and assistance can become one of your greatest assets and resources. For most customers, it makes more sense to purchase a slightly more expensive system from a vendor that is going to fully support you, rather than selecting a product solely on the basis of features and price. When looking at price, you should consider your overall costs, including training and implementation, not just the upfront cost.

Some of the questions you might ask are:

- How long have they been in business?
- Are they financially stable?
- Do they have customers similar in profile to your organization?
- Are their customers happy?
- What type of support is provided, for example does it include live phone support?
- How long will it take for them to get you up and running?
- Is live training included in the pricing?
- Will the person you worked with during the sales process be available to help you after you begin using the system should issues arise?
Conclusion

As health and fitness become increasingly important components of athletic competitive strategies, having the right software will keep your athletes performing at their highest levels, making the entire organization better placed for success.

Athlete EHRs have been designed to directly respond to the issues and needs of sporting organizations. Investing in a system that centralizes data and provides tools that promote real time collaboration will result in better documentation, improved efficiency, higher quality of health care and ultimately stronger athletic performance.
Next Steps

Whether or not the purchase of an Athlete EHR is seen as a big investment, it still needs to be budgeted. In the next part of this series, we will help you with some of the financial metrics you can use to develop an ROI model and build a business case.

Don’t miss the next whitepaper in this important series. For more information on the ideas discussed in this whitepaper or to be added to our mailing list, please contact info@presagia.com or visit our website at www.presagia.com.

About Presagia
Presagia provides secure web-based health management software solutions used by athletics organizations worldwide. Our multi-sport Athlete EHR and injury management system centralizes information needed by athletic trainers, physicians, coaches and physiotherapists while streamlining data entry. It also includes real-time reporting and collaboration tools. For more information, visit www.presagia.com.