The
Journal of mHealth
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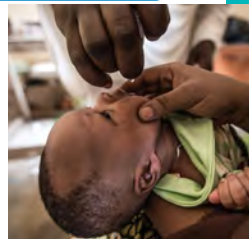
THE TECHNOLOGY OF CHRONIC DISEASE

FEATURE

Adoptation or Adaptation: Implementing eHealth

IN FOCUS

GIS Technology, Connecting the Dots

INTERVIEW

Improving the Management of Diabetes

and adults living with diabetes. The prevalence and popularity of context-driven digital touchpoints has made it easier to create and launch secure apps that efficiently reach Type 1 diabetics.

Using an integrated digital platform, many health systems are taking new, innovative approaches, such as delivering a gamified approach to high-quality diabetes self-management education (DSME). Using a secure app on their phone, a Type 1 diabetic can securely track their progress by engaging in bi-weekly surveys that are shared between the patient and providers, or simply monitor their daily well-being.

With healthcare organisations facing pressures to transform, digital platforms that augment historical and real-time data into a cohesive UI experience that drives an automated, contextual approach to patient engagement can reduce operational and clinical costs, while delivering a robust digital patient experience. Health systems that leverage their existing data assets on cloud-based AI platforms can use a data-driven approach to personalise diabetic treatment programs based on a patient's readiness to adopt to behavior modification, e.g., exercise, medication adherence, and nutritional advice, etc.

Agnostic, secure, cloud-based solutions and platforms that are designed to easily integrate with existing communication devices across multiple digital channels—such as iOS, Android, and the web—can foster a holistic approach to care coordination. These solutions can remove integration and security concerns, enabling

providers to accelerate their digital patient journey across all digital channels and platforms with interactive, integrated content-driven apps. Providers can focus on the healthcare needs of their patients, which will not only improve the patient experience, but improve patient outcomes.

For many health systems, the evolution of mHealth is very akin to the Rolling Stones adage: "You can't always get what you want… but if you try sometimes you find… you get what you need." There is no one-size-fits-all approach to digital transformation, but through debate and proactively pushing for new use cases, health systems have begun to see that implementing digital solutions is a catalyst for improving care coordination, lowering cost, and driving better patient outcomes!

ABOUT THE AUTHOR

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Data

The Key to Proactive, Preventative and Emergency Care for Athletes

By John McCann, BridgeHead Software

The world of sports medicine is at the forefront of technological advancements in both technology and the use of data. For elite athletes and their support teams, who spend hundreds or even thousands of hours training, planning and analysing performance, the margin that means you beat your competitor or win the game often results from the adjustments made at the performance analysis stage.

Bearing that in mind, the athlete still needs to be in peak physical health and fitness in order to compete at the highest level. And, for clinicians improving the diagnosis, treatment and long-term care of athletes is their paramount concern. After all, the athlete is the most valuable

asset of any team or sports organisation. Their health and fitness can make the difference between winning or losing, between attracting new talent and ensuring the future financial stability and enjoyment of the sport.

But, for most clinicians working in the elite sports field, the ability to access meaningful medical data is fraught with challenges. How can multi-disciplinary teams, whether at home or on tour, collaborate by accessing and sharing data securely to ensure the timely and accurate diagnosis and the best treatment for an athlete? What are the ramifications of an incomplete medical record to such a diagnosis and/or treatment pathway? How could that impact the athlete's performance or time back to optimum fitness?

Completing the athlete medical record

In a more generic healthcare setting, e.g. a private clinic or hospital, it is easy to argue the case for a centralised data repository for all medical data pertaining to a patient. For the clinician, having fast access to a complete patient record means efficient and thorough diagnosis and the development of a robust treatment plan, saving valuable time and enabling staff to deal with more patients at the point of care. For patients, this means quicker treatment and often better outcomes.

For elite sports the drivers are much the same. Fast and easy access to all historic and referenceable athlete data means clinicians can quickly determine the best course

of action in the event any injuries are sustained. The primary aim is to return players to a 'match fit' status with expediency as well as minimising risk and long-term damage – ultimately, ensuring the athlete's safety and optimum fitness. With an independent clinical archive, sports clinicians can upload and access all athletes' medical images and associated data, anywhere, anytime, on any device, creating a 360-degree view of the players for enhanced diagnosis, treatment and long-term care.

Secure data at home and abroad

Consider for a moment the geographical hurdles team doctors in international sports face. If a player becomes injured while competing abroad, medical decisions relating to the athlete often must be reached by clinicians at home, the touring team staff and often with external third parties. Medical images and supporting data needs to be accessed and analysed in collaboration to diagnose and treat the athlete quickly so that the player is back in the team and opera-

tional as soon as possible.

From a security perspective sharing highly sensitive data is fraught with problems. If data lands in the wrong hands, at best this is highly embarrassing for the team and player, at worst it can negatively impact the performance of the team and give the opposition the advantage.

A secure and centralised archive, with a zero-footprint full diagnostic viewing capability, allows clinicians and team doctors to review player images without leaving data on local devices, ensuring regulatory, compliance and governance obligations are adhered to and player data security is not compromised.

Data for enhanced player performance

It is well known that playing sport at an elite level can significantly increase the health risks to an athlete. It is a reality that elite sports teams are used to facing and, of course, they will have procedures

in place to reduce both the likelihood of injury while managing existing or historical injuries.

If you can analyse historic medical data, you can monitor patterns and develop techniques and best practice to ensure players' long-term involvement in the sport with minimal interruption due to injury. But, this depth of data analysis relies on having access to the complete athlete medical records for all players, from various sources, over time.

For the multi-disciplinary teams in elite sports, their main concern is always the safety of their most valuable asset – the athlete. These clinical teams are world-class and at the forefront both in medical treatment and in terms of their use of data analysis for injury prevention, but it is crucial to consider where that athlete information resides, how timely it is, and how it can be accessed safely. Only then can they be sure that they are providing the best levels of care for the wellbeing of their players. ∎