Research paper on diagnostic device applications

Health & Medicine, Healthcare

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Health information management systems can simply be explained to be a combination of science, business and information technology. These systems are usually put in place to assist in the provision of quality healthcare by ensuring that a health practitioner has been equipped with the best available information so as to be able to make any healthcare decision effectively. Over the years, these systems have developed from simple tools and applications for collecting, aggregating, planning and disseminating the aggregate and individual patient’s clinical data into more complex and specialized applications that can be used by any individual and are easily accessible from the internet.

The purpose of these healthcare information systems and applications is to essentially reduce the possibility of medical errors, provide cost effective solutions that hasten the patient care process and ultimately improves on the productivity of the healthcare facility. In this paper, I will seek to research on the various health information management systems with a

major focus on diagnostic device applications that are being used in our healthcare facilities or are being tested for use in the near future.

Caracal Diagnosis

The caracal diagnosis application is a smart app which is among one of the most promising applications in the medical field. It is a brainchild of a startup company known as MDiagnosis. Caracal diagnosis is available for most operating systems such as windows, iOS and Android devices designed for medical practitioners. This application allows doctors and other medical practitioners to look up for over 1, 600 diseases, 2, 200 signs, symptoms and lab findings from the applications medical database (Lantada, 2011, p127). A medical practitioner is only required to enter the signs, symptoms or the lab findings of any given disease and the application automatically performs a search and disease results will come up based on probability. The healthcare application disrupts the traditional method of manually checking and comparing signs and symptoms from medical books or using Google. This has greatly improved on the speed at which disease diagnosis is being carried out since the app uses algorithms that were founded by medical practicing physicians.

Uchek Urine analysis and Diagnosis Application

In the course of my research, I came along this interesting health diagnosis application known as uchek. It is a mobile phone app that was created by Biosense Technologies. It is currently a free application that can be downloaded from the online application stores but however, it requires an individual to buy a kit containing urine test strips that are visually analyzed

with smart phones camera. It reads, analyzes and interprets the various urinalysis dipsticks results.

This trend in the advancement of diagnosis of urine using health applications will largely disrupt the traditional way of performing urinalysis which could only be carried out by a doctor through multiple and complicated tests testing for the presence of blood cells in urine. However, just like many other healthcare applications out in the market, the results shown by this app should not be used to form a conclusive decision on the health status of an individual, but only serves to give the direction and therefore further confirmation from a doctor is required through more detailed examinations.

iLiver Application

This diagnostic device applications was developed by the European Association for the study of the Liver (EASL) and was designed particularly for hepatologists, internal medicine specialists and gastrologists. iLiver is a medical application that deals with the diagnosis and treatment of the human liver. This application offers doctors who specialize with the treatment of liver information and clinical treatment recommendations which are closely related to liver complications.

iLiver currently supports 19 liver diseases where one can check for their symptoms, signs and physical findings, management theory as well as all the complications associated with the liver disease. This application is more advanced and contains more medical content as compared to the traditional model of diagnosing and treatment of various liver diseases.

Porter’s Pediatric ALS App

This particular application deals with children’s diseases, diagnosis and treatment. Porter’s pediatric ALS application is a very complex and important practice that requires a lot of experience and knowledge from any doctor of medical practitioner. Both rural and healthcare practitioners have started to capitalize on this application since it is particularly useful in life threatening emergencies and often offers the most appropriate suggestions and information for such situations.

Porter’s pediatric ALS is a very important application because children are very delicate patients and are especially prone to diseases due to their immune system still developing. However, one should treat this application as a guide as it requires professional care and knowledge so as to use it to its full advantage.

Naturalistic Observation diagnostic assessment Application

This is an application that is at its final stages of development, it is intended to diagnose autism based on videos of children‘ s behavior uploaded onto a given website. Due to the acute shortage of autism medical consultants in our country, it can take as long as 6 months for a parent who suspects that their child might be having autism to get an affirmation and ultimately get treated (autism, 2013). Therefore this is an application that will totally change the traditional ways of approaching autism in children. This application is being developed by a non-profit Phoenix-based autism research center and it is expected to be launched in the near future.

Conclusion

Nowadays, the amount of resources at the doctor’s or medical practitioner’s disposal in regard to patient treatment and diagnosis is usually immense. This has been made possible by introduction of various device applications that are rich with diagnostic information, Unlike the traditional methods of disease diagnosis used by doctors, the use of applications greatly reduces the amount of medication error and also reduces the amount if time that was being wasted during the whole diagnosis period.

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