Personal Health Records: Key Features within Existing Applications

Nathan J. Bodily, David A. Carlston, Roberto A. Rocha, M.D., Ph.D.
RemedyMD, Salt Lake City, Utah

Abstract

Personal Health Records (PHR’s) have been developed as client-based and Internet-based applications. While there is no predominant industry standard or product, most applications have several key features in common. By researching several PHR applications we have isolated five important feature groups that are regularly implemented by existing products. While a majority of PHR’s include these key features, the usability and accessibility of each varies from application to application.

Introduction

PHRs enable healthcare consumers to directly create and manage their health information (e.g., family history, medications, allergies, immunizations, clinical problems) using a secure repository [1]. Centralized and direct access to aggregated information benefits patients, providers, and payers, ensuring effective communication and shared decision making. This information must be easily entered and viewed (whenever appropriate) by all three groups in order for a PHR to achieve its full potential.

In a 2005 working symposium, the American Medical Informatics Association’s College of Medical Informatics discussed the remarkable upsurge of activity that is surrounding the acceptance of PHR applications by the general public. It was concluded that PHR’s are more than just static repositories but are a set of tools which enable individuals to become more in involved in their own care. Several functionalities were stated that are key to overcoming barriers to adoption [2]. The purpose of this poster is to examine the implementation efforts of these key functionalities among various PHR vendor products.

Methods

We selected a convenience sample of 12 software applications from myPHR¹. Five key features were considered: (1) Secure access to PHR anytime, anywhere, via the Internet or a portable drive device; (2) Easy input and annotation or updating of comprehensive health related information (e.g., medications, allergies, treatments, etc.); (3) User friendly structured summary of medical information to healthcare providers; (4) Upload relevant health related documents available in digital format (e.g., scanned images of DNR orders, x-rays, living will, etc.); and (5) Access to relevant health related educational materials available via web links and/or distributed by providers.

Results

<table>
<thead>
<tr>
<th>Feature</th>
<th>Implemented</th>
<th>Not Implemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8 (66.7%)</td>
<td>4 (33.3%)</td>
</tr>
<tr>
<td>2</td>
<td>11 (91.6%)</td>
<td>1 (8.3%)</td>
</tr>
<tr>
<td>3</td>
<td>8 (66.7%)</td>
<td>4 (33.3%)</td>
</tr>
<tr>
<td>4</td>
<td>8 (66.7%)</td>
<td>4 (33.3%)</td>
</tr>
<tr>
<td>5</td>
<td>5 (41.7%)</td>
<td>7 (58.3%)</td>
</tr>
</tbody>
</table>

Discussion

While all applications required password-protected access to enter and view information (“feature 1”), most of the client-based applications did not enable the user to access or share information remotely (e.g., healthcare provider office) via the Internet or a portable device. All applications allowed for comprehensive input of health information (“feature 2”); however, one application required the purchase of additional modules in order to track “comprehensive” health information. Most applications had the ability to present information on a one-page summary screen for ease of viewing (“feature 3”), while others required you to open numerous modules, clicking on multiple tags to investigate information. Similarly, most applications allowed uploading and saving of documents using a well organized document repository (“feature 4”). Finally, health related learning resources (“feature 5”) were lacking in half of the PHR’s examined. Sites that did include learning resources had extensive collections of both web links and customer-level healthcare information.

Conclusion

As expected, the implementation of the identified key features varied between existing PHR applications. Many of the applications examined enabled extensive data entry of health information yet there was no standard for how the information was entered and later viewed. Given the importance of educational resources to assist consumers with understanding and informed decision making, we were surprised that it was not more consistently implemented.

References


¹ http://myphr.com/resources/phr_search.asp