

PRODUCT REVIEW / ANALYSE DE PRODUITS

Product Review: Carenotes

Product Review: Carenotes (Truven Health Analytics)

Audience: Frontline healthcare workers, patients

Purpose: Patient Education

Vendor: Truven Health Analytics (Formerly the Healthcare Business of Thomson Reuters)

Price: by subscription, contact Truven Health Analytics for details

Product description

Carenotes is an extensive database of print-based patient education materials. It is available as a standalone product, as part of Micromedex Healthcare Solutions, or as Integrated Carenotes. The database contains over 6900 brochures, including care and condition topics, 2100 drug titles, and over 400 frequently ordered lab tests [1]. The scope of the healthcare topics range from self-care issues (how to shampoo the hair of a person in bed) to health promotion (reading food labels) to procedures (laser surgery for glaucoma).

Carenotes material is peer reviewed and updated quarterly by Carenotes staff. The database provides a single point of entry for patient education materials that are current, comply with best practice, help organizations comply with Joint Commission on the Accreditation of Healthcare Organizations guidelines for patient education [2], and written at a grade 6–8 reading level. All Carenotes are available in English and Spanish. The most popular titles are available in up to 13 other languages that comprise the most spoken languages in the United States. These include French (Canadian), Arabic, Chinese (simplified and traditional), and Vietnamese.

Subscription options

Carenotes is available as a standalone product, part of the Micromedex 2.0 package, or as Integrated Carenotes, which offer integration into some electronic health record systems. Contact Truven Health Analytics for pricing. The product reviewed here is part of the Micromedex 2.0 package.

Audience

Carenotes is a database of patient education information; its ultimate audience is the patient. Within that context, the readability and display of information on the page is important. Carenotes does allow for flexibility in the printing of font size, and many of their handouts are

illustrated with high quality colour images. However, a patient's interaction with information is a complex issue [3, 4, 5] beyond these observations, so the reviewer cannot say if patients find these materials useful or helpful.

Carenotes is marketed to clinicians, nurses, and pharmacists [1]. It claims to allow for clinical consistency (because everyone is using the same material, which is not always the case in organizations). It can also save organizations money in terms of in-house production. Though rarely captured as a line item in healthcare budgets, the production of in-house patient education materials is time and resource intensive [6].

Features

There are two levels of access to Carenotes — the typical “front end” and the administrator function. Administrators have the ability create locations within Carenotes, upload and create headers and footers, create “Hot Lists”, edit Carenotes pamphlets, and create “Savenotes”. Thought should be given to exactly how this will be managed to reduce duplication of effort and the creation, and possible recreation, of materials. Administrators should have information management skills and be comfortable in a digital environment. While the interface for administrators is not difficult, it is not always intuitive (it mimics the old Micromedex 1.0 environment) though the vendor does offer training. Depending on the administrator's role, plain language translation skills would also be an asset.

All pamphlets in Carenotes are fully customizable. Organizations can add their own logos, headers, and footers. Branding is optional depending on organizational policies and requirements.

Administrators can create different “locations” within the database, which can be useful for Regional Health Authorities or Health Regions where several hospitals fall under one umbrella organization yet retain their own branding. For example, an administrator for three district health authorities can provide each health authority with its own separate location with appropriate branding.

Each Carenote can be edited to suit local needs and clinical policies. A simple word processing tool within the database allows the administrator to add or delete text or import images, though it does not have the functionality of a full word processing program. Similarly, new brochures can be created within the Carenotes environment. This is useful, particularly if an organization wants to keep all of their patient education material in one catalogue.

Carenotes that are edited or created from scratch are called Savenotes, and are identified in the database with an asterisk. Unaltered materials are updated regularly by the vendor, which saves the subscriber considerable time and effort ensuring their material meets current clinical practice standards. Savenotes, however, are not updated. Organizations must ensure these materials are accurate, meet readability standards, and are updated according to organizational policies and standards. This can prove time intensive if there are many Savenotes but perhaps less so than maintaining an entire catalogue.

The front end of Carenotes is clean and mimics Micro-medex 2.0. Tabs along the top of the screen allow for browsing by Care and Condition, Lab Tests, or Drug Name. Carenotes pamphlets (and Savenotes) can be accessed through a keyword search, which can be filtered depending on whether the searcher requires general information, discharge information, or other information. There is no advanced search option. Alternatively, units can request to create a "Hot List" that is a custom collection of favourite Carenotes useful to a particular clinician or unit. For example, "Ambulatory Care" might have a Hot List or Dr. Brown, Cardiologist, might have her favourites. These Hot Lists can be saved as shortcuts on a desktop, allowing users one-click access to the pamphlets they use most.

Depending on the title, Carenotes are configured for different aspects of patient care: general information, pre-care (preparation material for a procedure or a surgery), inpatient care (information about tests, procedures and care while a patient is in hospital), discharge care (discharge instructions), and after-care (instructions for patients after they leave an Emergency Department). Some care and condition titles will have a brochure option for each of these information types. This allows the clinician to provide the patient with the information that they "need to know" at a particular course in their treatment. There is also a good collection of self-care materials that seem particularly helpful in an age where patients are being asked to do more and more for themselves. Ideally, these would be available as a separate search or a filter option.

Materials can be selected and put into a "Print List". A clinician could provide a ward clerk with a list of material which he or she could retrieve and put into a print queue. At the time of printing, the patient's name can be added to the sheet, the font size adjusted (small, medium, large), and any extra instructions added. The vendor, Truven, is adding a feature to allow simultaneous copies of all materials to be sent electronically to a patient's email address (This update is not yet available.) With Integrated Carenotes, a record of the patient education given is sent to the Electronic Health Record that provides compliance with Stage 1 Meaningful Use Legislation for U.S. hospitals [7].

Carenotes offers training sessions online to users as well as in-house training upon request. This reviewer keeps a link to a short introductory training video [8] on how to use Carenotes on our Page Education Information

Reference Centre (an intranet page for staff only) next to the icon for the database.

Limitations

While Carenotes has many useful features, there are some notable limitations. Carenotes is an American product and as such, there is the potential for inconsistencies between American and Canadian approaches to healthcare, which in this reviewer's experience has been a concern raised by healthcare colleagues. Most Carenotes offer a "more resources" section at the end of each pamphlet which directs patients to outside agencies they may like to contact. These agencies are all American based, and healthcare colleagues often want these changed to Canadian sources. Such editing changes a Carenote into a Savenote that is no longer automatically updated and thus creates another individual pamphlet that must be managed. This reviewer suggests that if Canadian content could be added or the American-based material could be optional to include, it would be a beneficial change.

Many items in Carenotes are available in fifteen languages, but most are only in English and Spanish. While brochures in these languages are written at a grade 6–8 reading level, the same assurances cannot be made for the other languages. Health literacy, of course, is not just an English language issue, so heavy reliance on Carenotes for other languages might put an unfair burden on patients who are more comfortable in their native tongue.

Based upon experience, the keyword search is fine but could stand improvement. Many times multiple keywords had to be used to bring up an item. While the reviewer might be willing to try different keywords, busy frontline healthcare providers may not be so inclined.

The brochures have a lot of information. In a small convenience sample comparison audit done by our department, the reviewer had four fourth year nursing students do a direct comparison of 15 different in-house brochures alongside Carenotes and patient education materials in MDConsult [9]. Nursing students were asked to assess a number of criteria, amongst them readability, appearance, and perceived ease of use by patients. While Carenotes generally fared well in the comparison, particularly for consistency with best practice and readability, it was noted that the materials had very dense information on the page, lacked white space, or in a few cases did not have an image where one might have been particularly useful. Indeed, this reviewer noted that occasional material has been edited to take out information that was simply too wordy.

The different types of information options available for each condition (precare, inpatient, etc.) can also cause confusion to healthcare providers about what is the appropriate material needed for their patients. There is often overlap or repetition of information between each information type, which is necessary when provided one at a time, but can overwhelm a patient when provided all at once. When a patient should be presented a particular

type of information is up for debate. For example, if a patient is preparing for surgery, it is important to know about the procedure, but also how to prepare in advance for their homecoming. What supports would they need in place, how long should they arrange to be off work, bring in extra help, etc.? The information on precare is more clinical in nature, and other information might be needed. The inclination may then be for the healthcare provider to print out several different information pieces at one time, on one condition, to ensure the patient has all the information they need. The end result might be a patient overloaded with a lot of repetitive information, and a lot of pages that are wasteful to produce. Options that allow the healthcare provider to print one complete document with all aspects of care eliminating duplicate information would be a sensible addition to this product.

Lastly, and this is not related to the product itself but how one might interact with it, there has been a regular turnover in sales staff at Micromedex since 2010 (and possibly before, but my interaction with this group begins here). While connection to the training staff has been very good, it has been difficult to build a relationship with anyone to whom suggestions can be sent. For example, it was not possible to contact anyone in the company who could confirm a pricing structure or some information given by a former sales rep on the peer-review process at Carenotes.

Conclusions

Patient education information management should be a consideration for all organizations providing direct patient care, whether through the use of in-house materials, third party materials, or a mix of both. It is extremely resource intensive to do so; however, and while Carenotes is not inexpensive, neither are the collective costs of in-house production and management of these materials. Carenotes is a part of the Truven (Thompson Reuters) suite of products and has an excellent reputation for ensuring materials are high quality and peer reviewed. The information is trustworthy and largely well written. The materials are customizable; and there a lot of attractive features that make it a good tool. While it is not a silver bullet in terms of a "one stop approach" to patient education information, Carenotes is a powerful product with many useful features that can assist in that goal. For many organizations, it may already be a part of a Micromedex subscription, and if it is not being used, I recommend someone take a second look.

Looking at the issue of patient education information databases generally, the reviewer feels strongly that some sort of formal evaluation criteria should be developed for properly assessing these tools. As self-care and patient-centred care initiatives become more important, patient education products like Carenotes are going to be more important to healthcare organizations, and those

responsible for selecting such products should have the ability to assess their value before purchase.

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