

Feature Article

Micromedex: a brief review for a UK School of Pharmacy

Atai Okokon

Hon Research Fellow, Partnerships in Health Information, Pinner, Middlesex, United Kingdom

Abstract

Micromedex is one of the most popular tools used by pharmacists to provide medicines information. This paper outlines a brief review of the product to determine whether it would be suitable for use by undergraduates in a particular UK School of Pharmacy, that of UCL London.

Key words: pharmacy; education, pharmacy; drug information services; database

Introduction

Pharmacists are experts on medicines. Health professionals and indeed the entire public depend on the pharmacist for reliable information on medicines: this information helps promote rational prescribing, rational use of medicines and ultimately saves lives. There are various tools available that enable pharmacists to provide evidence based reliable medicines information and one of the most popular ones is Micromedex. This paper aims to evaluate the necessity of Micromedex in a Pharmacy School.

Methods

A rough search was done using Google and PubMed. Interviews with senior and junior pharmacists were conducted to evaluate the need. The search included



Fig. 1. Pharmacy students working with electronic information.

learning about Micromedex and its resources, the organisations within the UK that used Micromedex and possible alternatives to Micromedex tailored for use in the UK. Four senior medicines information pharmacists were asked if they felt Micromedex was necessary for academic use and the more junior pharmacists ($n = 5$) were asked if they had used Micromedex whilst in university and if they felt it would have helped them adapt better to being a pharmacist. The author also used Micromedex at three Medicine Information departments and downloaded the free android app.

Discussion

Micromedex is a very important tool and it is quite indispensable to pharmacists as a whole, particularly clinical and medicines information pharmacists. It provides comprehensive, detailed information on drug interactions with evidence from referenced studies. As part of their training, Pharmacy students need to be able to search, critically appraise and present evidence on drug therapy. Senior pharmacists are of the opinion that Micromedex is not suitable for Pharmacy students as it tends to “do their homework for them”. Interestingly, the junior pharmacists were of the same opinion. Also, Micromedex is US-Centric and tends to focus more on medicines used in the US.

Having used Micromedex, the author is of the opinion that it is a great tool. Whilst it will be great to have access to its vast resources and it will make their work easier, allowing students access to the tool might end up being counterproductive as they will tend to rely on the tool. Moreover, as a less comprehensive but useful

Address for correspondence: Atai Okokon, c/o Partnerships in Health Information, 30 West End Lane, Pinner, Middlesex, HA5 1AQ
Tel: +44(0)20 8866 9892 Email: aokokon@gmail.com

Micromedex mobile app is available (for free), it may not be cost effective for the School of Pharmacy to purchase the tool

What is Micromedex?

Micromedex is a comprehensive database of health information resources developed and marketed by Truven Health Analytics (1). It is quite popular amongst health professionals and is a trusted source of unbiased health and medicines information and is widely used by the UK medicines information (UKMi) professionals (1-3). The Micromedex tool is a combination of individual resources and one can either subscribe to all the resources or select those that meet the organisation's needs.

The resources within Micromedex include:

- Drugdex (a resource with information on medicines);
- Drug-Reax (a resource with information on drug interactions);
- Identidex (a resource with information on drug identification e.g if a patient comes in with a pocket full of unlabelled pills, Identidex can help identify the pills. It is US-centric and a different programme, TicTac helps identify UK drugs);
- DiseaseDex (a resource with information on diseases);
- PoisinDex (a resource with information on toxicology);
- LabAdvisor (information on laboratory tests);
- AltMedDex (information on alternative medicines).

Micromedex has mobile apps that come free with the subscription and it also has free apps available on android and iOS for everyone. The mobile app that comes with the subscription is more comprehensive than the freely available version.

How Micromedex is accessed

To use Micromedex, one requires IP authentication. Users have to log in to the web based database to use its resources.

Obvious benefits and demerits of Micromedex

Micromedex is the preferred medicine information resource in use by Medicines Information departments in UK hospitals. It is quite comprehensive and provides evidence based and detailed information on medicines-interactions, adverse effects etc. on over 2700 drugs (1, 3-5). Micromedex has been described by medical students as an excellent resource for drug information and studies have shown this to be true (6-8).

Interestingly, one study showed that amongst Canadian Pharmacists, Micromedex was the least preferred of three online drug information databases (9). Another comparative (unpublished) study by the UKMi showed that the difference between Micromedex and Lexicomp a much cheaper alternative and most preferred by Canadian Pharmacists was not much (5).



Fig. 2. UCL School of Pharmacy

For pharmacists, Micromedex is an invaluable resource. However, practicing pharmacists, both Junior and Senior have said they do not think it is ideal for students. The younger pharmacists all thought that there would have been no added advantage if they had used Micromedex as students and the senior pharmacists believed that Micromedex will only make students lazy.

Another major drawback is its cost. The full Micromedex web based tool is quite expensive. Its free mobile app is quite easy to use and is used widely by medical students. I have downloaded the app and find it quite useful.

Who is using Micromedex in the UK?

All medicines information departments in the UK have access to Micromedex. To my knowledge, Micromedex is not widely used in UK Pharmacy Schools but many US Schools have access to it (10). If UCL subscribes, it will probably be the only Pharmacy School in the UK to do that.

Conclusion

Micromedex is a great tool for practicing pharmacists. Although not widely used in UK Pharmacy Schools, it is used extensively in US Pharmacy Schools. Having used the tool myself I can only applaud its comprehensiveness and reliability in providing much needed drug information. The prohibitive costs would have to be

considered when choosing to start a subscription. It will be worth finding out if Truven Health Analytics offers a trial version of the software. I would recommend the Library does a “test-run” using this trial before committing to it.

Acknowledgements

This short paper was written during my time as a Commonwealth Professional Fellow in the UK in the first part of 2014. The main aim of my Fellowship was to learn how medicines information is managed in the UK at the national, regional and hospital level so that I could build networks and contacts with relevant UK bodies and individuals in the field. I would like to thank:

- The Commonwealth Scholarship Commission for sponsoring my Fellowship which was a valuable and enriching experience;
- Partnerships in Health Information (Phi) who hosted me and planned a carefully thought out programme tailored for my needs;
- Michelle Wake, Librarian, The UCL London School of Pharmacy where I was on attachment for a week very early in my programme. I was warmly welcomed by Michelle and her colleagues. As part of my programme Michelle encouraged me to write about Micromedex.

References

1. About Micromedex Company | Leadership Team | Information [Internet]. [cited 2014 Feb 13]. Available from: <http://micromedex.com/about-micromedex>
2. intro to searching micromedex databases [Internet]. [cited 2014 Feb 13]. Available from: <http://www.ukmi.nhs.uk/Training/pdffiles/Pharmpressinfoguide.pdf>
3. Spotlight on MICROMEDEX - Ebling Library [Internet]. [cited 2014 Feb 13]. Available from: <https://ebling.library.wisc.edu/spotlight/micromedex.php>
4. Clauson K, Hyla P. Selecting the Right Online Drug Information Database for Your Organization. *PP&P*. 2007(September); 6-10.
5. comparison of micromedex and lexicomp UKMI [Internet]. [cited 2014 Feb 13]. Available from: <http://www.ukmi.nhs.uk/filestore/misc/AcomparisonoftheMicromedexandLexi-compDatabases.pdf>
6. Khalifian S, Markman T, Sampognaro P, Mitchell S, Weeks S, Dattilo J. Medical student appraisal: searching on smartphones. *Appl Clin Inform* [Internet]. 2013 Jan [cited 2014 Feb 13];4(1):53–60. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3644814&tool=pmcentrez&rendertype=abstract>
7. Polen HH, Zapantis A, Clauson KA, Jebrock J, Paris M. Ability of online drug databases to assist in clinical decision-making with infectious disease therapies. *BMC Infect Dis* [Internet]. 2008 Jan [cited 2014 Jan 27];8:153. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2613899&tool=pmcentrez&rendertype=abstract>
8. Clauson KA, Marsh WA, Polen HH, Seamon MJ, Ortiz BI. Clinical decision support tools: analysis of online drug information databases. *BMC Med Inform Decis Mak* [Internet]. 2007 Jan [cited 2014 Jan 28];7:7. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1831469&tool=pmcentrez&rendertype=abstract>
9. Mountford CM, Lee T, de Lemos J, Loewen PS. Quality and usability of common drug information databases. *Can J Hosp Pharm* [Internet]. 2010 Mar [cited 2014 Feb 13];63(2):130–7. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2858502&tool=pmcentrez&rendertype=abstract>
10. pharmacy school micromedex - Google Search [Internet]. [cited 2014 Feb 13]. Available from: https://www.google.co.uk/search?q=pharmacy+school+micromedex&oq=pharmacy+school+micromedex&aqs=chrome..69i57.9621j0j4&sourceid=chrome&espv=210&es_sm=93&ie=UTF-8

More information:

1. The Commonwealth Professional Fellowship Scheme, supports mid-career professionals in spending time with a UK host organisation/s for a working programme of professional development. <http://cscuk.dfid.gov.uk/apply/professional-fellowships/>

2. Partnerships in Health Information (Phi) is a UK charity of over 20 years standing. Phi works in Africa to promote partnership working and development projects. These partnerships are having a significant impact in making health information available to people who need it and are contributing to better understanding of global health information issues.

<http://www.partnershipsinhealthinformation.org.uk/>

Phi's work is guided by the following principles:

- promote African leadership in health and medicines information;
- support evidence based practice;
- work to improve public access to health information.

Received 15.05.2014 Accepted 22.05.2014