



A comparison of the Micromedex and Lexi-comp Medicines Information databases

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Project Background

- Micromedex Drugdex one of recommended sources
- Drugdex comprehensive but expensive
- Lexi-comp is a less expensive alternative
- Review commissioned by UKMIPG

Comparison of databases

| Drugdex | Lexi-comp |
|--------------------------------------|--|
| Quarterly updates | Daily updates |
| Over 1900 monographs | Over 1600 monographs |
| Full new monograph with next release | Initial new monograph-1 week; full-30 days |
| Comprehensive info | "Point of care" info |
| 75-100 pages | 4-5 pages |
| > £2000 | £200 - £500 |

Methodology

- 10 MiCal queries were selected with model answers
- 3 levels of MI staff took part in the study
- Only the 2 databases were used for answering queries
- After each query an evaluation form was completed
- Evaluation forms were analysed by the researcher and a senior pharmacist

Methodology

| Query Number | Query Level | Query Question |
|--------------|-------------|---|
| 1 | 1 | Dose of metformin in polycystic ovary disease. |
| 2 | 3 | Can ibuprofen, sulfasalazine or hormone replacement therapy cause eye diseases? |
| 3 | 2 | Carbamazepine – various adverse effects. |
| 4 | 2 | Is there an interaction between amiodarone and mexiletine? |
| 5 | 2 | Garlic – any interaction with enalapril or aspirin? |
| 6 | 2 | Use of venlafaxine in a patient with mitral valve prolapse |
| 7 | 2 | Nicotine replacement therapy in a type I diabetic. |
| 8 | 2 | Use of co-amoxiclav in breast-feeding mother |
| 9 | 3 | Which antidepressant to use in pregnancy? |
| 10 | 2 | Evidence for use of feverfew for migraine. |

Results – breadth of information

- 87% of queries answered by Drugdex (61/70)
- 83% of queries answered by Lexi-comp (58/70)
- The difference was not found to be statistically significant (t-test, $p > 0.05$)
- Both databases covered a similar range of topics

Results – Accuracy/Completeness

| Points Awarded For Quality of Answer | Number of Queries: Micromedex | Number of Queries: Lexi-Comp |
|---|----------------------------------|---------------------------------|
| 0 | 9 | 12 |
| 1 | 28 | 35 |
| 2 | 23 | 16 |
| 3 | 10 | 7 |
| | 70 | 70 |

Results - Time

- 57.6% of search time spent on Drugdex
- 42.4% of search time spent on Lexi-comp
- The level three queries had the longest search times for both databases
- Unexpectedly the level one query did not have the shortest search time
- No correlation (Pearson's) found between query complexity and search time

Results - Time

- Participants spent significantly longer searching Drugdex than Lexi-comp (t-test, $p < 0.05$)
- No correlation found (Pearson's) between search time and quality of answer
- A positive correlation was observed (Pearson's) between MI experience and the quality of answers

Perceptions- Micromedex

| Statement | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|----------------|-------|---------|----------|-------------------|
| The database is easy to navigate. | 16 | 36 | 10 | 8 | 0 |
| The screens could be read easily. | 13 | 39 | 12 | 5 | 1 |
| The language was clear and concise. | 9 | 47 | 12 | 1 | 1 |
| The database provided sufficient information. | 8 | 24 | 14 | 19 | 5 |
| I would use this database again for a query. | 11 | 45 | 8 | 6 | 0 |

Perceptions- Lexi-comp

| Statement | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|----------------|-------|---------|----------|-------------------|
| The database is easy to navigate. | 14 | 38 | 12 | 5 | 1 |
| The screens could be read easily. | 10 | 38 | 13 | 6 | 3 |
| The language was clear and concise. | 9 | 50 | 9 | 2 | 0 |
| The database provided sufficient information. | 7 | 25 | 11 | 20 | 7 |
| I would use this database again for a query. | 8 | 40 | 13 | 8 | 1 |

Limitations

- Sample pool numbers
- Familiarity with databases
- Subjectivity of parts of study
- Use of mainly level two queries- depth
- Comparison with other comparative texts
e.g. AHFS or Therapeutic Drugs

Conclusion

- Both databases covered a similar range of topics
- The Micromedex queries were more likely to be more comprehensive than Lexi-comp
- A positive correlation observed between MI experience and the quality of answers
- Both Lexi-comp and Micromedex have a potential role in MI