Which electronic database do Swiss healthcare professionals consult for pediatric dosages?

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Background and aim

Pediatric dosages are often not in the summary of product characteristics.

In a Swiss pediatric university hospital 50% of all drugs are used «unlicensed» or «off-label».¹

The goal was to investigate…

–where todays pediatricians and pharmacist get their information on children’s dosages from, and

–if such electronic databases are consulted and which one of them.

Methods

An online survey in French and German was sent to 1’806 pediatricians and 2’073 pharmacists.

Main questions in the online survey

1. How often do you use electronic drug databases on average?
2. Which electronic *media* do you use for children’s dosage?
3. Which electronic *database* do you consult for children’s dosage?

Completed by 882 professionals (return rate 23%)
- 509 pharmacists
- 360 pediatricians
Results: How often are electronic drug databases used (I)

Sorted by frequency of use

N=882
- never
- ≤ 3x annually
- 1-3 x monthly
- 1-5 x weekly
- ≥ 1x daily

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Results: How often are electronic drug databases used (II)

Sorted by professions

- Pediatric practice (n=143)
- Public pharmacy (n=376)
- Children's ward (n=162)
- Hospital pharmacy (n=88)
Results: How often are electronic databases used (III)

Sorted by experience

- over 20 years (n=359)
- 10-20 years (n=240)
- 6-10 years (n=144)
- 1-5 years (n=131)

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Results: Which electronic media are used for children’s dosage

- Websites (PC): 57% use, 31% use once a year - 3x monthly, 6% use never, 18% use at least 1x weekly
- Websites (Tablet, Smartphone): 31% use, 18% use once a year - 3x monthly, 51% use never, 14% use at least 1x weekly
- Apps: 21% use, 14% use once a year - 3x monthly, 65% use never, 26% use at least 1x weekly
- Electronic guidelines of the respective institution: 25% use, 21% use once a year - 3x monthly, 49% use never, 26% use at least 1x weekly

n=824
- never
- once a year - 3x monthly
- at least 1x weekly
Results: Which electronic databases are used for children’s dosage

Dosing databases used at least **once weekly**

- Compendium.ch
- Swissmedic
- Pharmavista
- Kinderhospital Zürich
- Micromedex
- UpToDate

<table>
<thead>
<tr>
<th>Database</th>
<th>Pediatric practice (n=144)</th>
<th>Public pharmacy (n=377)</th>
<th>Children's ward (n=162)</th>
<th>Hospital pharmacy (n=88)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compendium.ch</td>
<td>60%</td>
<td>61%</td>
<td>63%</td>
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<tr>
<td>Pharmavista</td>
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<td>28%</td>
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<td>Swissmedic</td>
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<td>10%</td>
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<td>19%</td>
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<td>Kinderhospital Zürich</td>
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<td>Micromedex</td>
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<td>UpToDate</td>
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</table>

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Conclusion

– Electronic drug databases are crucial.

– Websites are most important, however Apps are rarely used.

– The most popular source for pediatric dosages is the summary of product characteristics, followed by the website www.kinderdosierungen.ch of the Children’s Hospital Zurich.

Label use: Summary of product characteristics is sufficient

Off-label use: Other databases are crucial
Version 2.0 available spring 2018

• Professionalization (for example: responsive design)
• Conformity as medical device
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