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"Wheat and chaff"

The available amount of **information** in medicine is **increasing exponentially**. Suitable strategies are necessary to separate the "wheat from the chaff" and impart knowledge relevant to specific situations to potential users promptly. Evidence based medicine (**EbM**) and clinical practice guidelines (**CPGs**) should reflect the contemporary scientific standard of knowledge.

In view of these challenges the knowledge network of the medical faculty of the University Witten/Herdecke is focusing on two different tasks:

1. It provides **evidence based medical guidelines** in a format that is meant for easy access and use in daily practice.
2. It scientifically explores different ways of presenting and transferring evidence based guidelines in order to develop better and easier ways of **implementation**.

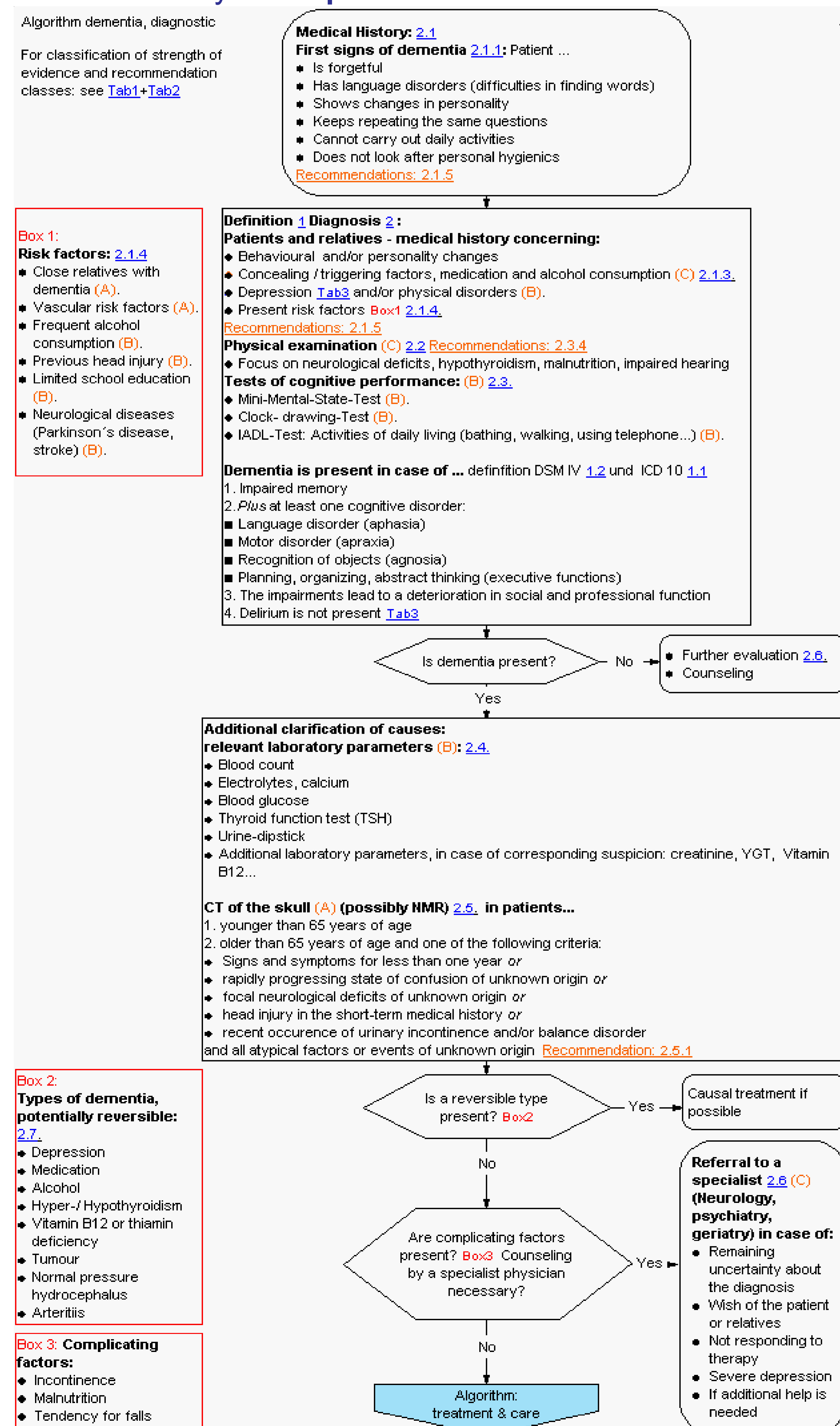


figure 1: algorithm dementia

Execution and technology

Additional incentives, as e.g. **CME-Tools**, are necessary to succeed in implementing relevant knowledge or clinical practice guidelines respectively. The main goal of this concept is to create a **learning environment** for the complex process of **medical knowledge transfer**.

The medical knowledge network "evidence.de" of Witten/Herdecke University has developed an internet platform for CME in cooperation with a software house as a public private partnership. The user data are filed on a secured **Open-Source server** (application server Tomcat, Apache Web server and Linux). An Oracle® database and a **content management system** (CMS) facilitate the easy input of different MC question blocks. Each block refers to one of the knowledge network's clinical practice guidelines topics. Until June 2003, 14 blocks of tasks were designed within the medical faculty and certified by the responsible medical association (Internet: [www.evidence.de](#) (figure 1) and [www.medizinerwissen.de](#) (figure 2).



figure 2: start page of medizinerwissen.de

Client requirements

- Adobe Acrobat Reader > 4.0
- IE 5.5 + JavaScript / Netscape > 6.0 + JavaScript

Server requirements

- CMS CoreMedia
- Apache Jakarta Tomcat 3.1
- Fop-Driver 0.2.25rc
- Oracle 8.1.7i
- JRE 1.3.1_03

Web-Addresses:

Knowledge Network: [www.evidence.de](#)
 For CME: [www.medizinerwissen.de](#)
 Guidelines for physicians: [www.medizinerleitlinien.de](#)
 Guidelines for patients: [www.patientenleitlinien.de](#)
 Witten/Herdecke University: [www.uni-wh.de](#)

Feedback and further questions

Existing clinical practice guidelines allowed a swift development of questions concerning each medical indication. All questions were evaluated by an **editorial group of physicians** consisting of General Practitioners (GPs) and internists. A consecutive usability-test with 10 GPs of a quality circle of the university was positive. Suggestions offered by the users were implemented in an updated version. Between June and October 2003, more than **670 physicians** used the platform. 80% of them gave a positive feedback in an online evaluation questionnaire (figure 3).

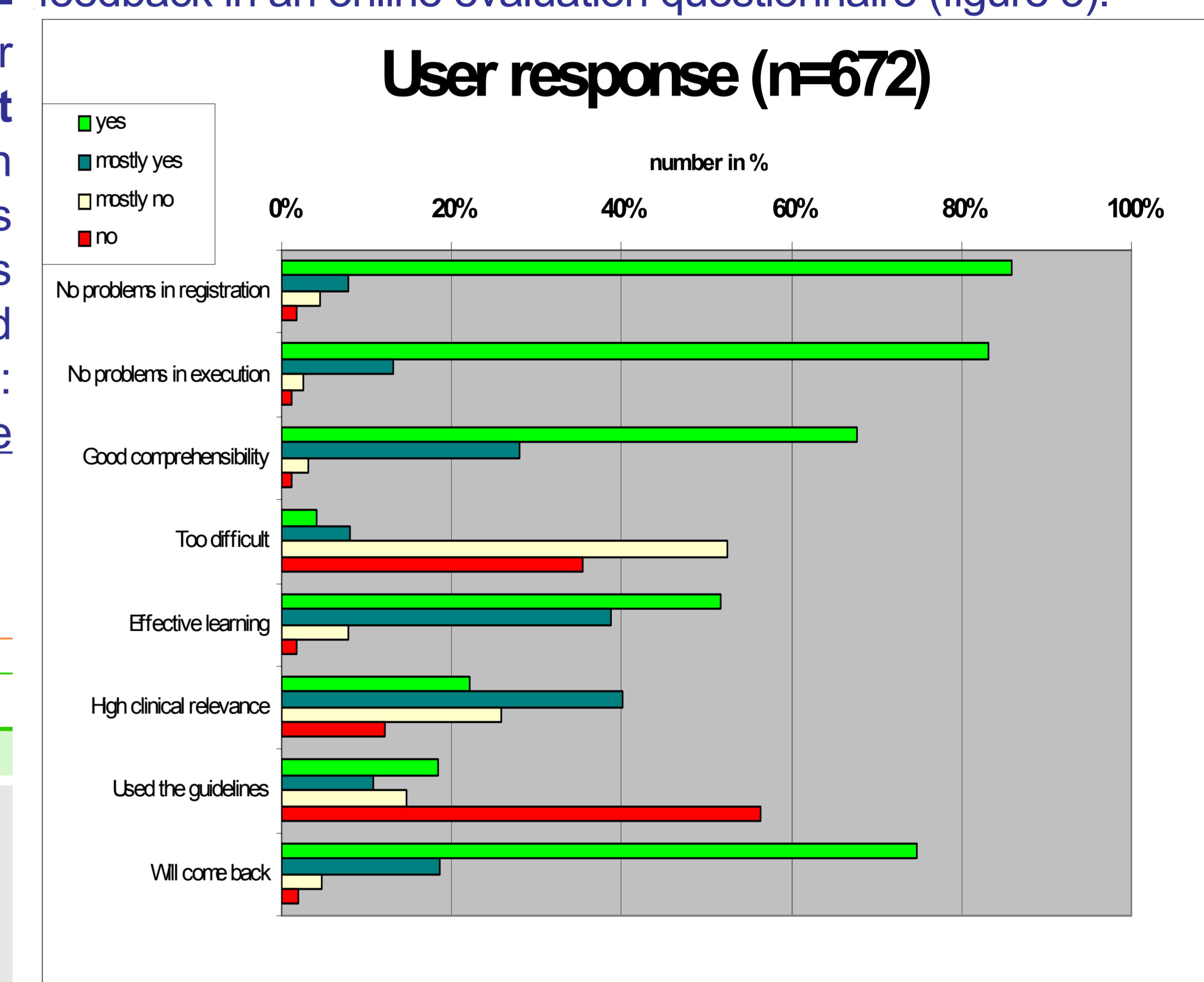


figure 3: user response for testing medical knowledge with "medizinerwissen.de"

An online platform for CME can support **active learning** and may establish an **additional stimulus** to absorb knowledge relevant for medical practice. In the future, the medical knowledge network will consider following questions:

- Do online platforms for further education facilitate and accelerate knowledge transfer for physicians?
- Which feedback mechanisms should be implemented?
- Would modified versions of such learning platforms be suitable for patients as well?
- Can a CME platform support existing disease management programs?

As **advanced training becomes mandatory for German physicians** starting from January 2004, online CME-Tools will get more and more important for medical education and knowledge transfer.

Acknowledgements

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