

OBJECTIVE

Digitally sharing information enables:

- improved communication
- accuracy of a medication overview
- reduction of medication errors [1]

The aim of this study was to evaluate implementation of an electronic medication overview, particularly its accessibility and usability.

CONCLUSION

To ensure accessibility and usability, it is essential to have:

- secured and quick access to medical data
- software adapted to daily activities of healthcare professionals

METHODS

VITALINK

In Belgium, a project called "Vitalink" was implemented.

Its main objective was to improve the **exchange of health information** between healthcare professionals, as well as towards patients.

Software packages generating an **electronic medication overview** based on patients' health records, were developed.

Health information was transferred over the Internet.

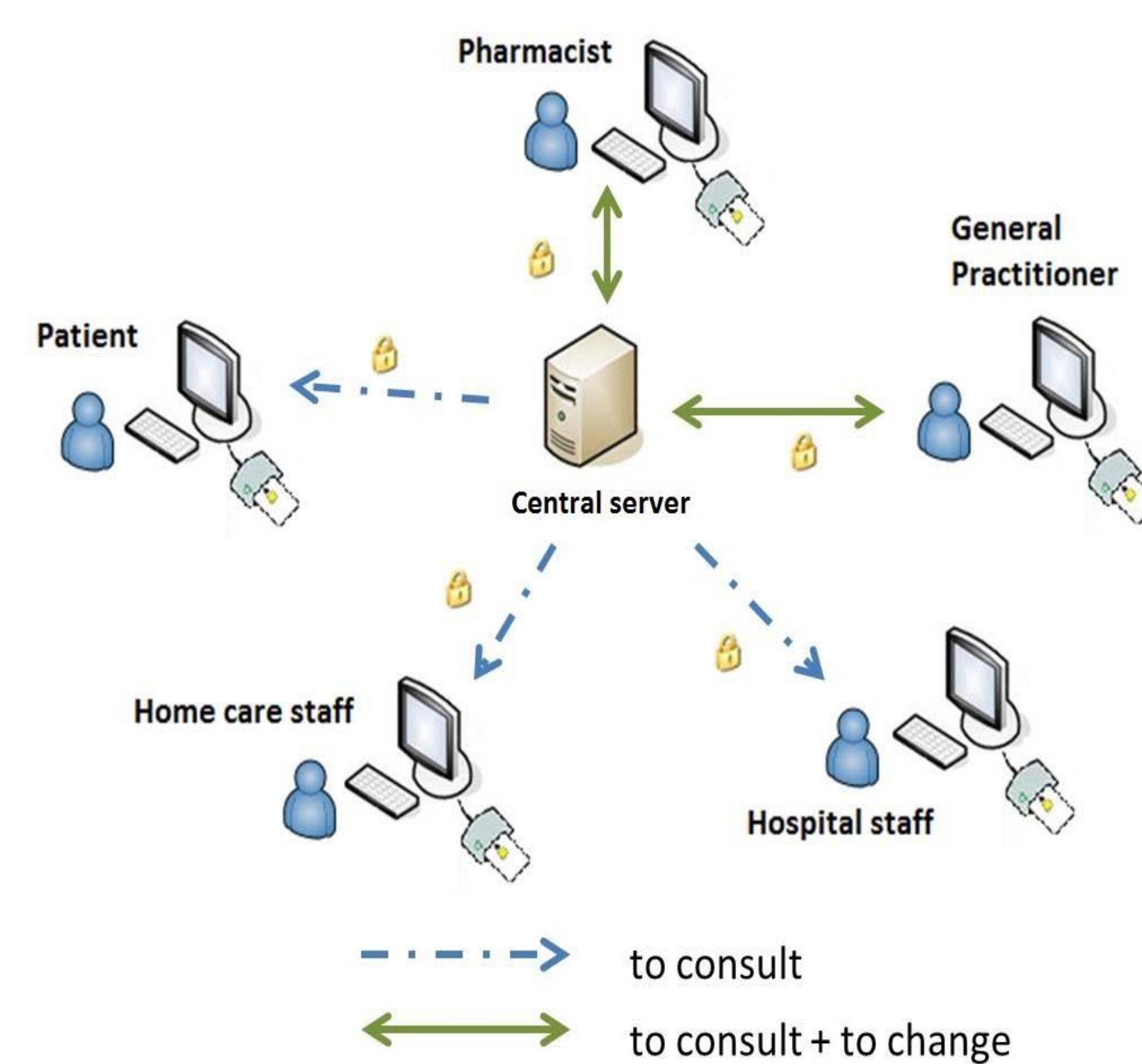
Security is guaranteed by:

- encoding health information
- encrypting the encryption key
- two separate decoding keys
- registration of all actions performed on the data

Access is granted:

- only to healthcare professionals selected by the patient
- depending on the type of healthcare professional that is accessing the medication overview, actions allowed on the data are restricted
- identities are verified by reading healthcare professionals' and patients' eID through an eID reader linked to a computer with Internet access

VITALINK



General practitioners and pharmacists can consult and edit the medication overview whereas nurses, home care staff and secondary caregivers can only consult it. The patient can only consult the electronic medication overview.

EXPECTATIONS

Implementation of Vitalink was evaluated.

Tool

- an online survey was used to assess healthcare professionals' expectations of Vitalink
- complementary findings on expected barriers were gathered by the coordinating teams

Respondents

- general practitioners
- pharmacists
- nurses
- home care staff
- secondary care professionals

Ethics

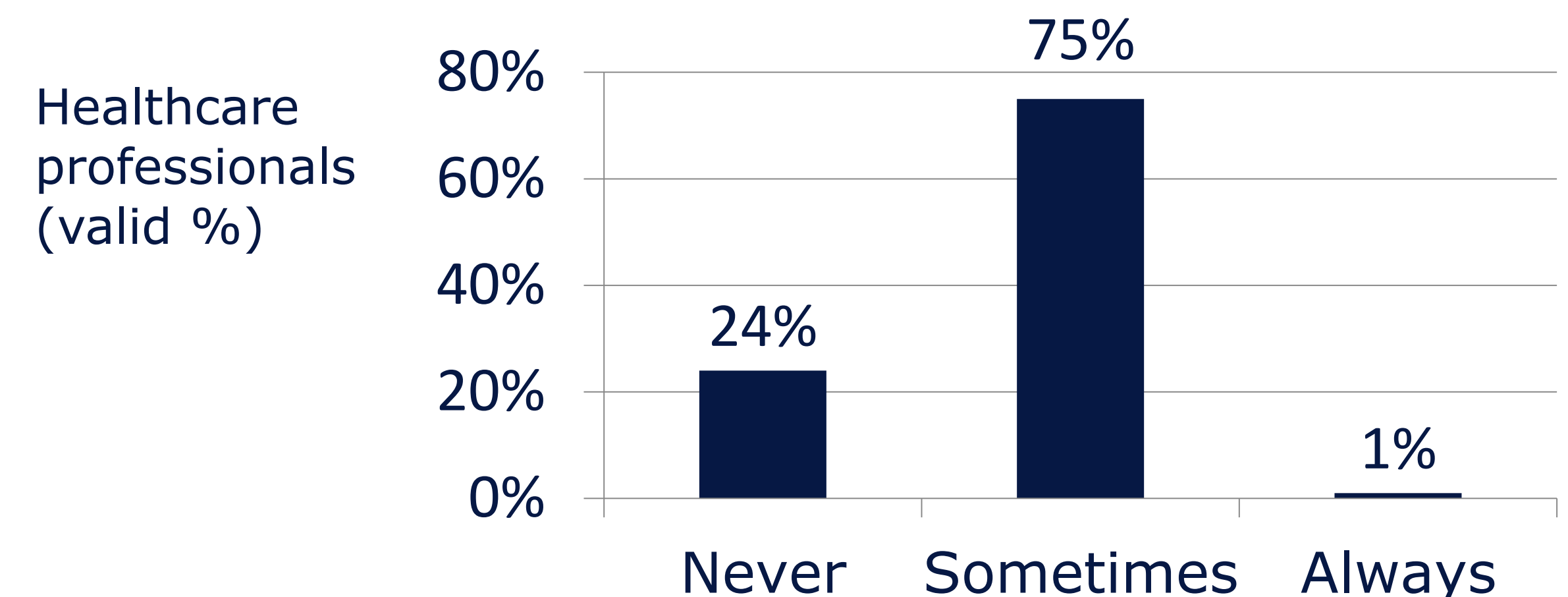
The study was approved by the Ethics Committees of the Universities of Hasselt and Antwerp.

MEDICATION OVERVIEW

Chronic medication		Frequency	Start	End	Intake/unit/dose	Breakfast												Remarks
Digoxin 125 TAB 60 x 0.125mg		Every other day: day 1	2013-06-10			Morning	Before	During	After	Before	During	After	Before	During	After	Sleep		
Digoxin 125 TAB 60 x 0.125mg		Every other day: day 2	2013-06-10															
Temporary medication		Frequency	Start	End	Intake/unit/dose	Breakfast												Remarks
Aspirin TAB 20 x 325mg		Daily	2013-06-12	2013-06-16		Morning	Before	During	After	Before	During	After	Before	During	After	Sleep		
If necessary		Frequency	Start	End	Intake/unit/dose	Breakfast												Remarks
Tramadol Hydrochloride TAB 30 x 50mg		Severe pain	2013-06-10			Morning	Before	During	After	Before	During	After	Before	During	After	Sleep	Indication: severe pain No more than 400mg (8 TAB) a day	

RESULTS

Perception of detecting medication errors



263 healthcare professionals filled out the survey. Nurses represented 55.6% of respondents.

Most healthcare professionals perceived:

- themselves as "sometimes" detecting medication errors
- patients' compliance to be "moderate"

Healthcare professionals' expectations about barriers were:

- an administrative burden (because of the setup of the software)
- problems with maladjusted software

CONTACT DETAILS

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REFERENCES

[1] Hillestad R, Bigelow J, Bower A, et al. Can electronic medical record systems transform health care? Potential health benefits, savings and costs. Health Aff 2005;24:1103-17.