

Dematerialized Pharmaceutical Prescriptions in (Mobile) Internet Environment

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Why mass e-Commerce services are the future for the disabled and elderly?

- even people with serious movement problems can use it
- not embarrassing services
- almost as convenient as traditional
- finding lowest prices is easy

What ill, old or disabled expect from e-commerce?

- purchasing remotely medicines available only with prescription
- ability to obtain health-service refunds when buying medicines remotely

Known Solution:

Dematerialization of stock shares

Dematerialization
–only electronic data link
shares with their owners

–greater safety, speed and
comfort of exchanges

New Solution:

Dematerialization of prescription

Dematerialization
- digital-key-based
electronic storage

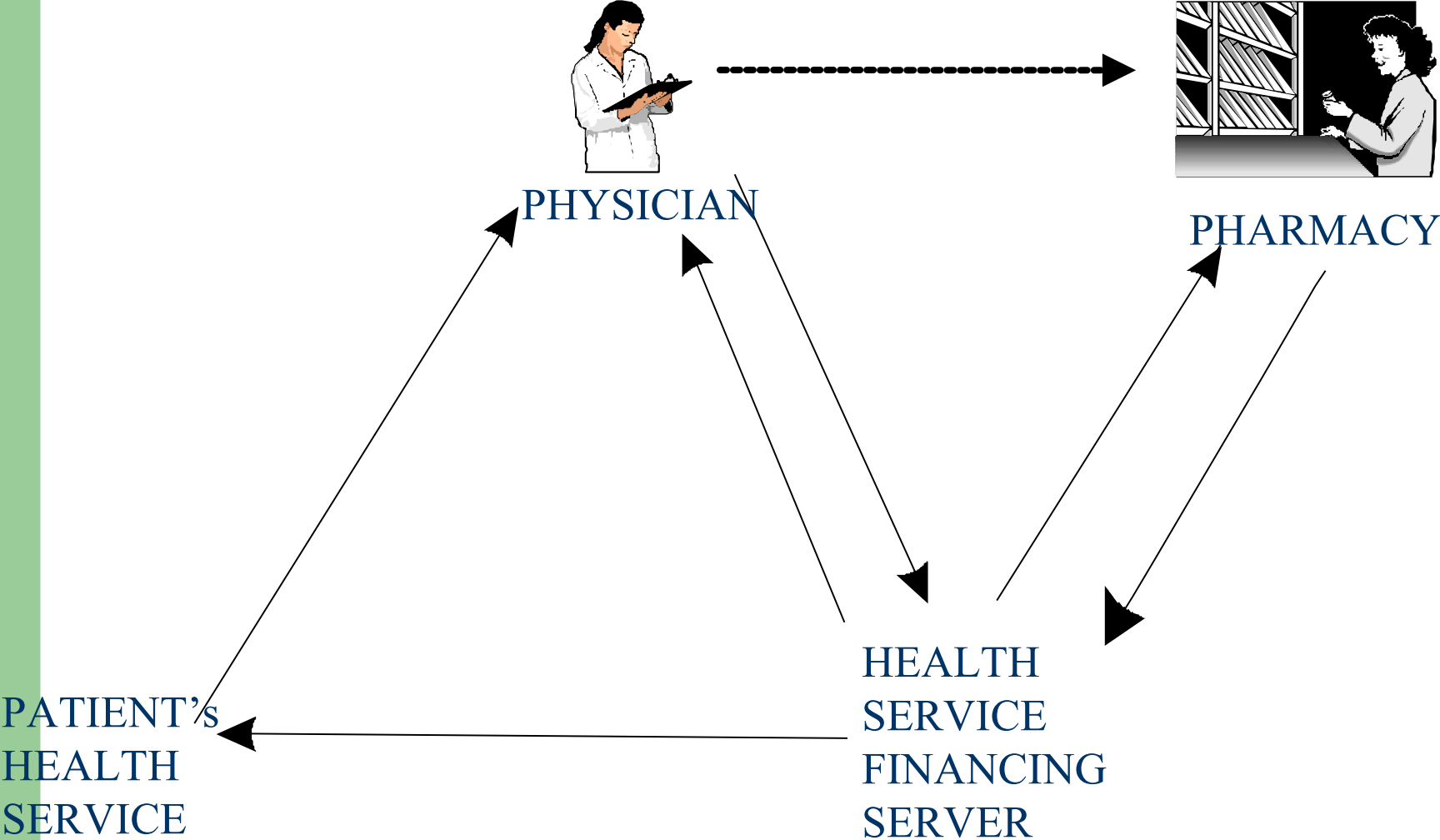
- greater comfort and
flexibility of purchase

Elements of dematerialized prescriptions

- **contents**: header, drugs, signature -changed to digital equivalents
- **reference**: for instance a 12-digit number enabling purchase of medicines

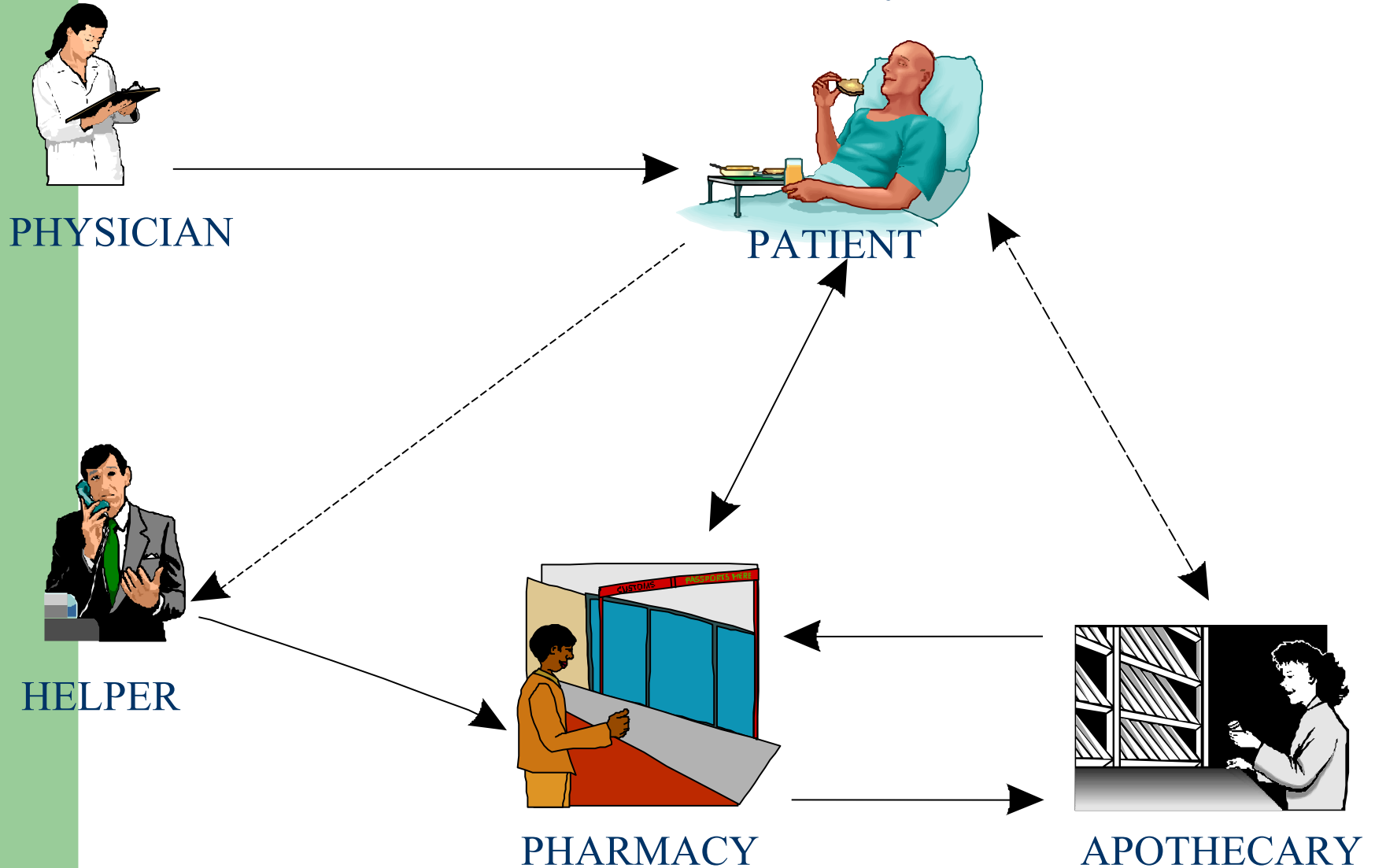
Cycle of the Dematerialized Prescription (DP) contents

Reference of DP drug title is Physician's History



Delivering medicines

The ~~Confrontation~~ ~~tradition~~ ~~of~~ ~~BDP~~



Hardware and software for DP preparation should be:

- both for stationary and mobile processing
- easy and intuitive to use because of physicians' strong habits
- prepared to use in everyday physician work even in a hurry and under stress

Other proposals

e-Prescription

- Internet access to pharmacies mostly in US
 - client can choose medicines he or she wants
 - pharmacy cooperates with a physician, who prescribes the chosen drug

Not acceptable for the European Health Service

Comparable proposals

ePrescription

- NOVO Group Finland – November 2002
 - code bar on cellular phone
 - prescription contents sent directly to a pharmacy through ASP
- APOTEKET Sweden – May 2003
 - Internet-based
 - APOTEKET's own pharmacies network

SUMMARY of DP

Advantages to patients

- As simple to use as traditional prescriptions
- Patient can freely choose a pharmacy
- Patient - no additional equipment required
- Always formally correct, no rejections
- Wide range of delivery services
- DP can be electronically transferred as text, voice or image

SUMMARY of DP

Other properties

- Easily applicable to every pharmacy - automation and lower costs of work
- Automatic update of patients' history
- Automatic calculation of refunds
- Easier control of health service economy
- filling out a DP is less intuitive than filling out a handwritten prescription, especially on mobile devices – this would require much work to convince physicians to use DPs

Future works

- Technology
 - a reference divided into two parts
 - database replication schemes
- Applications
 - solution for the National Health Service in Poland
 - solution for Europe with the use of comparable approaches from European countries, funded and coordinated under FP6