# 3TH INTERNATIONAL WORKSHOP ON TRENDS IN ELECTRONICS AND INFORMATICS

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## Electronic Health Care

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## SUMMARY

*The ageing of the population and the increase in the number of patients is associated with increasing demands for the provision of high quality healthcare. The main objective of the implementation of **the electronic health care (eHealth**) system and its functions is to use information and communication technologies to provide the right information at the right time in the right place in all stages and processes of health care of citizens, which will not only improve the efficiency and quality of the health care provided, but also improve the quality of life of patients [1]. The poster introduces the topic of eHealth in **the European Union** with a focus on eHealth in **the Slovak Republic** and **the Czech Republic** from the perspective of pharmacists.*

## INTRODUCTION

In June 2000, the **eEurope Action Plan** was announced as part of **the Lisbon Strategy**, whereby the European Parliament, the European Commission and the EU Member States made a political commitment to cooperate in activities aimed at developing a **European Information Society**. Digital healthcare contains tools that use information and communication technologies to improve prevention, diagnosis, and treatment which can improve access, quality and efficiency of healthcare. One of the priorities of the European Commission (2019 – 2024) is "**A Europe fit for the digital age**". It contains also the creation of a **Digital Single Market** [2,3].

### Slovak Republic

In the Slovak Republic, the eHealth system has been launched since **1 January 2018** with the following services: **a) ePN, b) electronic services relating to the birth of a child, c) Connecting the System, d) Patient´s electronic health record, e) eExamination, f) eBooking, g) Patient Summary, h) electronic record of vaccination, ch) the application Moje ezdravie, i) eAlerts, j) eLab and also k) ePrescription (Fig. 1.)** . The computerisation of healthcare in the Slovak Republic is responsibility of **the National Health Information Centre** and it is legislatively regulated by the Act of the National Council of the Slovak Republic No. 153/2013 Coll. on the National Health Information System. The founder of the National Health Information Centre is the Ministry of Health of the Slovak Republic [4].

In our research (154 pharmacists) we found out the impact of the introduction of eHealth on the level of pharmacy care provided, focusing on the function of **electronic prescriptions.** Participating pharmacists considered the most significant advantage of electronic prescribing for patients the ability to prescribe long-term chronically used medicines without the need to visit a doctor. The most significant advantages of electronic prescribing for pharmacists were the quick verification of the patient's birth number and relationship to the health insurance company, and eHealth system alerts in the event of a medication dispensing error (different strength, pack size, medication dispensed). The most significant disadvantage of electronic prescribing were problems with processing the electronic prescription in case of a malfunction of the pharmacy information system or power failure.

### Czech Republic

From 1 June 2020 in the Czech Republic, the functionalities of the ePrescription information system have been expanded to include a shared patient medication record, which allows authorised persons (patient, physician, clinical pharmacist and pharmacist) to view data relating to the prescribed and dispensed medicines of a particular patient. A shared medication record allows pharmacists to assess potential drug interactions not only within the medications they dispense, but also across all medications prescribed and dispensed to a patient. It contains information about prescribed medicines, information on dispensed medicines, doctor's identification data, and pharmacist's identification data [5].

## CONCLUSION

The digitisation of the healthcare sector can lead to improve quality of life for many citizens, improve patient safety, reduce prescribing errors and streamline the work of pharmacists and it can significantly changes the way healthcare is delivered. It also supports the health care function through the use of information and communication technologies (providing the right information at the right place at the right time in all stages and processes of citizens' health care). Although eHealth and electronic prescribing have brought many benefits for both pharmacists and patients, their use in practice also carries some risks that are common to those associated with paper-based handwritten prescription (e.g. the risk of incorrect choice of medicine or the risk of the prescriber or pharmacist providing incorrect information to the patient about the use of the medicine). Despite the problems associated with the use of electronic prescribing in practice, the majority of pharmacists and patients interviewed were more comfortable with electronic prescribing than with paper prescriptions. On the other hand pharmacists interviewed did not report more time for consultation with patients due to electronic prescribing. Not only doctors and pharmacists need to be educated to learn how to work with all the functionalities that eHealth has brought but the European Commission is working with EU Member States to provide training or education also for students in digital skills to improve them. It may helps to minimize the errors that are perceived as disadvantages of eHealth and ePrescription.

## LITERATURE

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Prístup do systému ezdravie
**Connecting the System**

evyšetrenie
**eExamination**

emedikácia

elab

ezdravie ELEKTRONICKÉ ZDRAVOTNÍCTVO

erecept
**ePrescription**

Elektronická zdravotná knižka
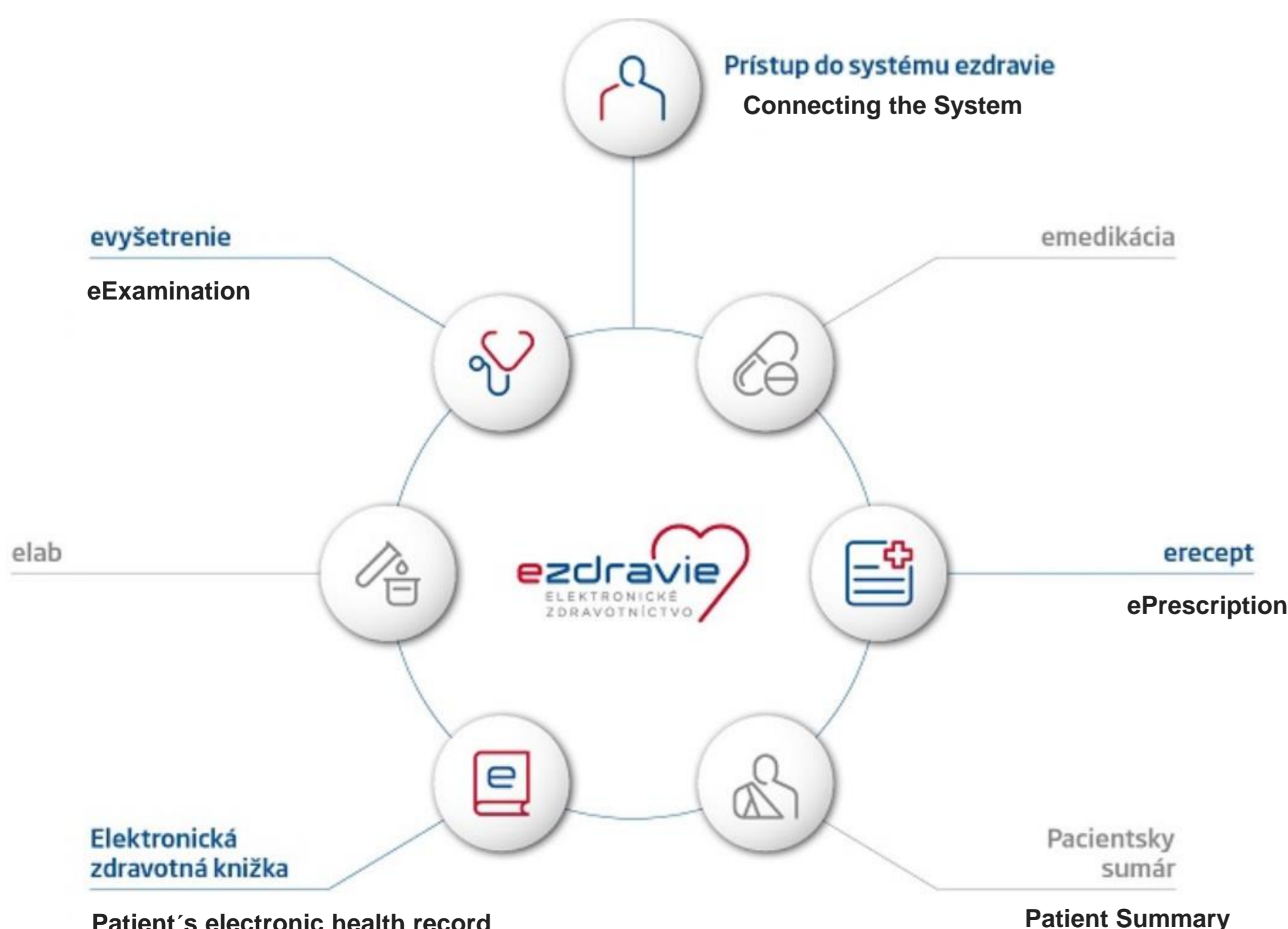**Patient´s electronic health record**

Pacientsky sumár
**Patient Summary**

**Fig. 1. eHealth functionalities [4]**