eHealth Lab01 - HS20

 $Resulats\ from\ Pascal\ Brunner\ -\ brunnpa 7$

Kapitel 1

Resulats

1.1 Technical Requirements

In this section I focus on the technical requirements, which should be considered for the final decision.

1.1.1 Safety and security

One of the most important requirement is data security. At any time, the data should be stored only encrypted. Every communication with other hospitals or practice should be encrypted. Furthermore, an automatic backup of data is required.

1.1.2 Patient health record

Since the exchange between the different stakeholders get more complex, it should be possible to manage all data and information electronically.

1.1.3 billing process

The practice can handle the entire account, especially the entire invoicing/billing process, directly through the system. This allows the practice to handle the entire process more efficiently, which has to be done after the patient's visit.

1.1.4 stock control

The electronic stock control, helps us to provide a high level on quality. The most important drugs are available at any time, as soon as there are only a few left it sends a message to the physician assistant to restock the drug.

1.1.5 Medication Management

As soon as the disease is detected, in most cases a medication is prescribed. This prescription should automatically be checked for any conflicts (allergies, other medications etc.) and the general practitioner should be informed.

1.1.6 Patient registration

When a new patient is admitted to the practice, the patient should have the possibility to enter his information (allergies, health insurance etc.) directly via tablet. This relieves the work of the physical assistant.

1.1.7 Book online an appointment

The patient should have the possibility to book an appointment online. The online calendar shows only the available appointments. Once a new appointment is booked, it automatically set the appointment to the general practitioner.

1.1.8 Workload

The physical assistant can directly manage the workload of the general practitioner as well as some other tasks. In this case you have an overview and manage the private practice more efficiently.

1.1.9 reports

Based on all data which are captured it can automatically generate a report of any patient. This report summaries all the relevant information as well as gives a overview about the current disease.

1.1.10 statistical reports

A statistical report of the private practice can be obtained at any time. This allows, for example, an evaluation of the stock management or the workload of the private practice.

1.2 Important standards that should be supported by PIS

If you want to introduce a new PIS, there are several standards to follow. Of course the PIS has to comply with Swiss law and guidelines. An explanation of data protection in medical practices can be found here

One of the most important standards is data protection. The so-called GDPR.

In addition, there are various standards on how to deal with data transfer and the associated interface (API).

- OPAN (Spitex)
- EasyNet (Argomed)
- DocBox (Visionary)
- BlueConnect and BlueEvidence (BlueCare)

1.3 Top-5 Systems

1.3.1 AESKULAP by Kern Concept AG

Website: to kernconcept website Price-range: Available upon request

Standard package:

• Master data management

for patients for treatments for tariffs

• Activity recording and billing

with online TARMED-Optimizer and -Validator correspondence

reporting

WORD interface with form library

• Medication article management

Medication

stock management and practice pharmacy

• further

Statistics dunning

Additional modules:

- Laboratory device interface
- external laboratory interface
- further device integration
- digital document archiving directly at the patient's site with the option of archiving in PDF (in separate software)
- electronic image archiving directly with the patient integration of imaging medicine
- Devices with connection to the patient
- electronic invoicing with the involvement of the usual TrustCenter (TrustX) and with the involvement of MediData AG (MediPort)
- electronic media ordering (to wholesaler) also possible with interaction and allergy check at the drug level
- integration of X-ray images: digital administration tool with reminder function with patient-based orders after work
- e-mail module, SMS module
- smart text module
- KG macro module
- BlueEvidence interface
- DocBox communication
- text recognition OCR
- online practice module
- access authorization module
- history module
- sighting module.

1.3.2 CuraMED / curabill by Swisscom

Website: to the website curaMED Price-range: available upon request

The modern practice software curaMED opens new doors to efficient and effective practice management for doctors and physiotherapists in individual practices and outpatient health centers. The Software-as-a-Service (SaaS) solution, configured according to the highest security standards, offers a modern and comprehensive medical information system that you can use according to your needs:

Standard package:

- electronic medical history
- practice agenda and resource planning

- patient registration (also online via Tablet)
- automated service recording
- daily journal
- statistics and evaluation
- search function

additional module:

wisscom Health takes care of the complete accounting (curabill) on request. Curabill has to paid additionally.

1.3.3 MediWin CB by Ärztekasse

Website: to the website MediWin

Price-range: Free in the basic version for members of the Ärztekasse. Further modules available upon request/payment The medical insurance company provides network-compatible software with powerful instruments. It is suitable for individual and group practices and offers patient management, a treatment and session assistant, a medication tool and document management in the free full version. The software can also be expanded with a digital agenda and electronic medical history.

Standard package 'All in one Patient administration:

- Patient data
- Patient cockpit (all relevant data at a glance)
- Treatment and session management
- Activity recording and billing

1.3.4 EPaad by Compass IT AG

Website: to the website EPaad

Price-range: CHF 7000 for the practice and the first user, afterwards CHF 3500 for every additional user.

Alternatively: CHF 2000 per year and CHF 1000 for every other user per year

Standard Package:

- Clearly arranged patient administration with complete ECG
- simple appointment management
- handling at reception
- recording of treatment
- billing of treatments
- administration of master data
- integrated ordering system (medication/material)
- statistics

Additional modules:

- Software as a Service (SaaS) in the practice/cloud possible
- mTAN
- replication on backup server out of practice

- access over several locations
- tablet version inclusive daily update of service providers and medications
- data import/export
- patient comparison via insurance card or tel.search
- document storage at the patient's location
- printing of labels/appointment cards
- dispatch of all documents (transfer, report, etc.) via mail
- history documentation
- generation of reports (blocks can be taken over from SOAP)
- list of pending items
- internal/external laboratory equipment interface with automatic import
- laboratory order
- digital X-ray images at the patient's or via PACS
- medical equipment integration via GDT
- image management Dicom
- electronic invoicing (Trust Center, MediData, health insurance company etc.)
- automatic ordering of medication and material
- recall function with reminder to phone, SMS or mail
- appointment wizard
- appointment booking option for the patient
- resource management
- service blocks
- favorites
- debtor control/monitoring
- Tarmed validation

1.4 Best practice for the evaluation of IT Systems

There are various procedures for evaluating an IT system. Personally, I would recommend that you use a proven approach. Basically I refer to *FMH Software Overview*. FMH not only offers a good overview of the individual providers, but also provides step-by-step instructions for the evaluation of a PIS.

- 1. Vision, digital strategy, goal
- 2. Requirements
- 3. Evaluation and offer
- 4. Contract and Project management

5. Project approval and daily business

In addition, I have included other helpful links for the evaluation.

- $\bullet\,$ possible guideline
- $\bullet\,$ PIS Software-Evaluation
- $\bullet\,$ PIS costs and factors