Mobile Patient Questionnaires
Implementing the Single Source Idea

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INTRODUCTION
Patient Questionnaires in Medical Care and Research

Patient reported outcomes are important to:

• Assess the patient’s perception of their health status, e.g. quality of life

Documented in:

• Clinical studies (sometimes)
• Routine patient care (rarely)
Research Question

Is there an efficient method to **collect patient reported outcomes data** by means of patient questionnaires which can then be used for **treatment** as well as for **research** purposes?
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METHODS
The Web-based Application

- Hardware-independent
- Currently supported questionnaire forms: radio-buttons and visual analogue scale
- XML file for data export
- Mapping to EHR forms
- According to usability standards
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RESULTS
Workflow

Patient appointment → Patient completes form on mobile device
> QoL data available as XML file

Patient questionnaires electronic on mobile device → Patient questionnaires electronic within EHR

Assistant triggers import into HIS → QoL data is available in EHR

Reusing QoL data

- csv Export of QoL data and additional clinical information for research and quality management
- Overview of all QoL scores over time
- QoL in doctor’s letter
Over the last week, how much has your skin interfered with you going shopping or looking after your home or garden?

- Very much
- A lot
- A little
- Not at all
Evaluation

• In our pilot department: 28 patients per week, 3 different questionnaires -> iPad paid off after 7 months compared to paper-based workflow

• Patients: “[…] I just see advantages, even though I am not a fan of computers. It is much better to read and clearly arranged and it was not difficult at all.” - “It was really fun!”

• Physicians: “[…] it has a significant influence on the treatment. For example when I see that a patient has a high depression score I choose a different medication, this is not possible when I use the paper based version.” - “I would recommend it to other departments.””
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DISCUSSION
Advantages of Mobile Questionnaires

- Time saving
- Reducing transcription errors → Increased data quality
- Patient reported outcomes data immediately available for treatment, integrated in EHR, reusable for research
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FUTURE RESEARCH
Future Research

• Implementation in other hospitals and primary care
• Other questionnaire types (e.g. catalogue selection)
• Diaries at home
Thank you for your attention.

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