

User-centred development of an innovative eHealth system for comprehensive quality assurance and therapy support in Austrian acute geriatrics and remobilization facilities

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Background

To further improve quality assurance in acute geriatrics and remobilization facilities (AG/R), the "Benchmarking and Reporting Service" for geriatric care (BARS, www.healthgate.at), which exists for more than 10 years, is re-specified and newly developed and linked to innovative eHealth systems for care process and decision support. In the following this system is called BARS legacy system.

Vision

The thus generated innovative system (CDS-BARS) supports the identification of geriatric patients, improves the quality of reporting via digital documentation and reduces the amount of work for benchmarking due to integration of existing documentation systems. This is achieved by linking subsystems, whereby functions for care process and decision support and for documentation of the therapy can be fully integrated into the work process.

Methods

A user-centred development process based on ISO 9241 for multimodal requirements analysis was performed. Using different methods, core tasks and needs of the users were identified and requirements derived:

- **System analysis of the BARS legacy system**
 - Usage and data quality
- **Structured literature search**
 - Existing projects and software in the area of benchmarking in geriatrics
 - Studies on process and outcome indicators in geriatrics
- **Focus groups on process and outcome indicators**
 - Discussion at management level
 - Survey on the results of literature search
- **Online questionnaires**
 - Use of the BARS legacy system
 - Suggestions for improvement
 - Technical integration
- **Interactive workshops and process analysis**
 - Discussions at management level and at other hierarchical levels
 - Involvement of all participating groups
- **Context interviews**
 - Structured one-on-one interviews
 - Survey of core tasks, processes, challenges, wishes, needs and expectations
 - Derivation of requirements

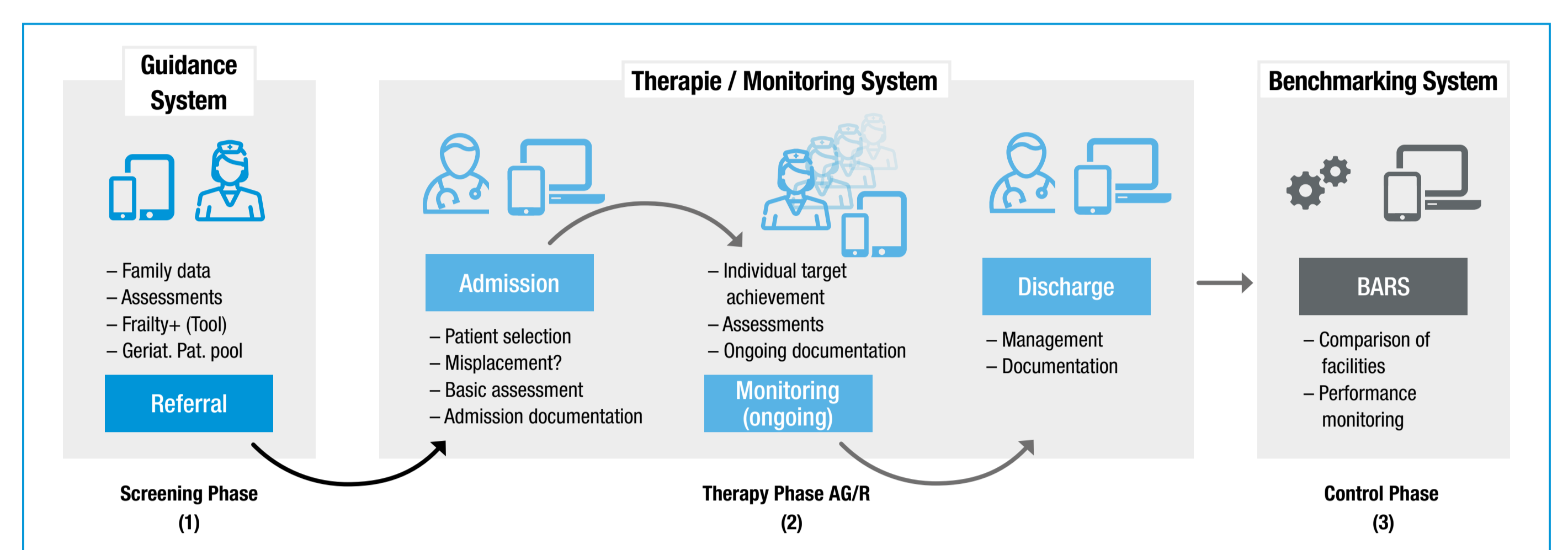
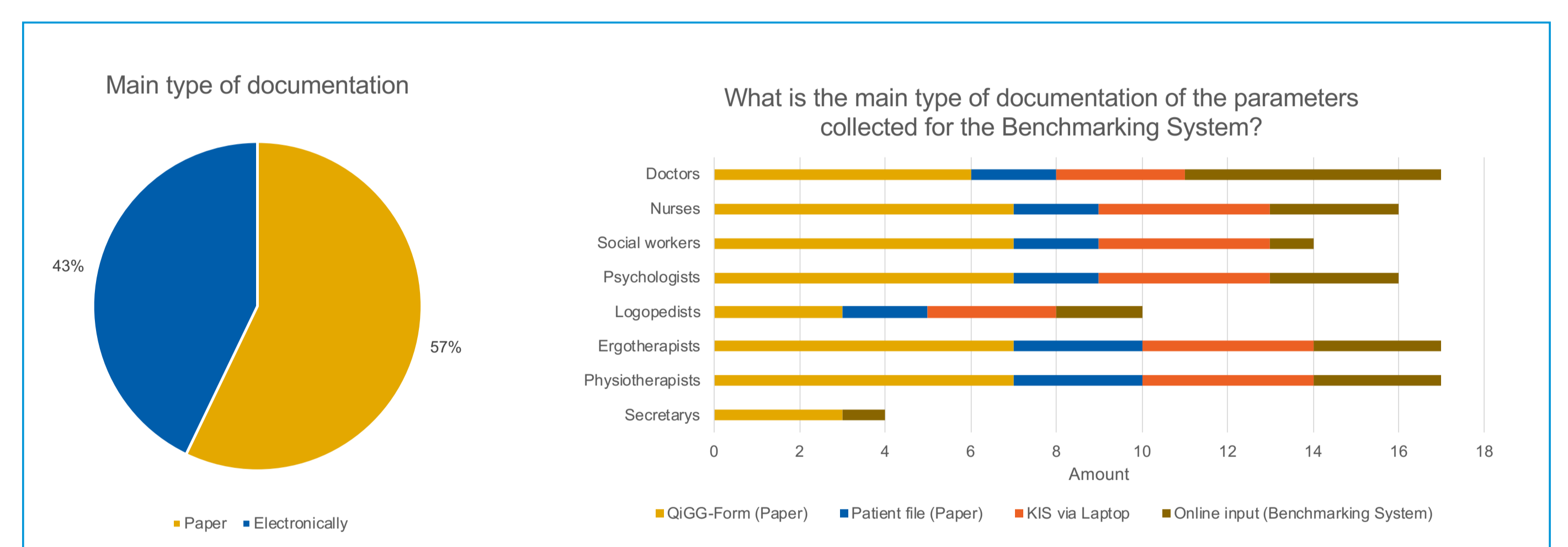


Illustration of the three linked subsystems. The Guidance System (1) outside the AG/R supports identification of geriatric patients, the Therapy/Monitoring System (2) within the AG/R supports, among other things, the documentation of geriatric assessments. The collected data is then automatically transferred to the Benchmarking System (3), which is used for performance monitoring and comparison with other facilities.



Evaluation of the online questionnaires. A large part of the documentation in the AG/Rs is still done on paper. (Response rate: 42.5%; 17 Austrian AG/R facilities)

Results

The literature search showed that currently no system like CDS-BARS is available and that the BARS legacy system already covers most of the process and outcome indicators for the Control Phase. The top 4 challenges and wishes of the users are:

Challenges

- Lack of information and transparency in patient assignment to AG/R
- Difficult communication between different departments and facilities
- Multiple and time-consuming documentation
- Heterogeneous ICT landscape

Wishes

- Reminder for data release of individual occupational groups
- Reduction of documentation effort
- Various representations for interdisciplinary meetings
- Flexible evaluation tool

Discussion and Outlook

Austrian AG/R facilities form an extremely heterogeneous landscape, not only in terms of ICT equipment. The processes described in the Geriatrics Process Manual for carrying out geriatric assessments are also implemented differently in some cases.

The challenge particularly for the Therapy/Monitoring System is to implement a practicable solution for all AG/R facilities.

Due to the modular structure of CDS-BARS, it can also be used in remobilization, aftercare facilities (RNS) and mobile services. A possible nationwide use of CDS-BARS system is currently under discussion.

Project partners:



Cooperation partner:



Funded by:

