

Development of quality standards for the safe medication in nursing homes: a Delphi study

Lea D. Brühwiler*¹, Simone Fischer¹, David L.B. Schwappach^{1,2}

¹ Patient Safety Switzerland, Zurich, ² Institute of Social and Preventive Medicine, University of Bern
bruehwiler@patientensicherheit.ch GSASA-Congress 2020, OP1/R-RPS-40

Introduction

Background: For Swiss nursing homes, no suitable guidelines exist that lead health care professionals towards safe medication of their residents.

Aim: To develop quality standards reflecting the minimal requirements for safe medication processes and collaboration between professionals and with residents.

Conclusions

We developed minimal requirements to ensure safe and resident-oriented medication processes in Swiss nursing homes. The quality standards may offer guidance on how to design medication processes.

The standards will be disseminated nation-wide.

Methods

Systematic search

A first draft of quality standards was extracted from a systematic literature search for similar international guidelines, prior project work and discussions. The systematic search identified two guidelines fulfilling inclusion criteria, pertinent for developing the first draft of standards: «Managing medicines in care homes» (NICE 2014) and «Hausärztliche Leitlinie Multimedikation» (DEGAM 2015).

The quality standards (n=5, No. I-V) were explicated in bullet points (n=87 specifications). Each standard with its specifications was substantiated with literature-based rationales to illustrate current evidence.

Selection of experts

Experts were selected to represent a specific profession (physicians, pharmacists, nurses, quality managers), one of the three Swiss language regions, and either practice or science. Experts had to have a broad knowledge about geriatric medication. Candidates were asked for participation by e-mail prior to the first rating round and 25 agreed to participate (Tab.). All experts remained anonymous throughout the process.

Tab.: Characteristics of 25 experts

Language region	Physicians	Pharmacists	Nurses	QM
German	4	2	4	1
French	1	5	4	2
Italian	1	1	0	0

Two-round Delphi

The Delphi was piloted and conducted according to the RAND/UCLA method. The experts received written instructions on how to rate the specifications. A guiding question was provided: “If this specification is consistently implemented in practice, how important is its effect on a safe and resident-oriented medication?» Each specification was rated for its relevance on a 9-point Likert-Scale. Comments were possible and were used to revise the specifications.

The specifications were interpreted as being relevant if, in the second round, the median rating was ≥ 7 (level of relevance) and $\geq 80\%$ of ratings ranged between 7 and 9 (level of agreement). These criteria have been communicated to the experts. Response rate in both rounds was 100%.

Results: Final quality standards

After the second round, 85 of 91 specifications fulfilled the predefined criteria and were selected for the final set of specifications of the five quality standards (see following table).

Quality standard	Examples of specifications (shortened and simplified for presentation)
I: The medication is reviewed regularly and in defined situations	<ul style="list-style-type: none"> Time between two regularly scheduled reviews is not longer than six months. Defined situations are for example: clinically relevant changes in condition, vital parameters or lab results, admission to nursing home, readmission after hospitalization.
II: The medication review is carried out in a structured way	<ul style="list-style-type: none"> Each professional ensures having a complete, up to date and correct medication list at hand. The pharmacists checks – as far as possible – the medication for misprescribing, e.g., for potentially inappropriate medication.
III: The medication is monitored in a structured way	<ul style="list-style-type: none"> Task physician: for every change in medication, a start/stop date is defined. Task nurse: Monitoring of the general health status and of potential side effects according to the observation notes provided by the physician.
IV: All health care professionals engage in an optimal interprof. collaboration	<ul style="list-style-type: none"> Health care professionals know each other. They know each others’ roles and responsibilities. Routes of communication between professionals are defined.
V: Residents are actively involved in medication processes	<ul style="list-style-type: none"> Health care professionals encourage residents and relatives to express their needs, concerns and changes of the health status. Residents receive sufficient information to participate in the decision making.