



## Development of a guideline for pharmaceutical ward management, engaging pharmacy technicians

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## **Abstract**

**Introduction:** Medication errors are common in hospital settings and are associated with increased length of stay and additional costs. The use of pharmacy technicians to optimize the medication use process on hospital wards has shown to reduce medication errors and therefore improve patient outcomes and reduce costs for the institutions. In this context, the Swiss Association of Public Health Administration and Hospital Pharmacists GSASA, set up a pharmaceutical ward management (PWM) working party with the aim of systematically promoting and supporting activities in this field.

The aim of this thesis was to develop and validate a guideline for the implementation of new ward management project involving pharmacy technicians, in order to improve the medication use process, enhance patient safety, and lower associated costs.

**Method:** A literature review was conducted in Embase and PubMed to identify articles assessing the impact of pharmacy technicians working on the ward. The search results as well as material resuming the experience of GSASA members were used as bases to develop a guideline for PWM with a particular focus on possible pharmacy technicians activities, to help Swiss hospitals implement new services on the wards. A visit to a hospital in Basel was necessary to obtain hands-on experience and a better overview of a well-established PWM involving pharmacy technicians in Swiss hospital practice. In the last part of the guideline development, nine experts from across the country were asked to validate it by providing additional suggestions, comments, and advice to correct and improve it further.

**Results:** A guideline, encompassing all possible tasks of the PWM, was successfully developed. The guideline provides practical advice on how to implement a PWM project, throughout all its phases from the set up to the closing, and covers all potential activities that could be performed by a pharmacy technician on the wards. and focuses specifically on the setting up and management of a PWM project throughout all its phases. Our first version was validated by seven experts (78% response rate) across the country, who expressed their overall satisfaction and contributed to the improvement of the guideline with their feedback, specifically highlighting the importance of convincing hospital management and ongoing interprofessional communication. The inclusion of the experts comments resulted in our final quideline version.

**Conclusions:** In the future, it is very likely that pharmacy services will extend their roles outside the central pharmacy, and therefore a guideline to provide a framework for project managers is very valuable. The document focuses on the engagement of pharmacy technicians on the ward, which has proven to be associated with many advantages, both in the literature and Swiss hospital practice.

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