Master's thesis Pharmacy ETH:

Structured assessment and treatment of minor health disorders in Swiss pharmacies (preparation for publication)

Birgit Winkler¹, Dominik Stämpfli^{1,2}, Andrea M Burden¹

¹Pharmacoepidemiology, Institute of Pharmaceutical Sciences, Department of Chemistry and Applied Biosciences, ETH Zurich, Zurich, Switzerland ²Hospital Pharmacy, Kantonsspital Baden AG, Baden, Switzerland

Abstract

Background: Recent developments see pharmacists expanding their knowledge and abilities to provide patient care beyond the dispensing of drugs. Introduced in 2012, netCare, a service developed by the Swiss association of pharmacists (pharmaSuisse), provides Swiss community pharmacists with decision trees for assessing and treating 26 minor health disorders.

Objectives: We aimed to evaluate the current implementation and development of the netCare service, and to develop a new netCare decision tree.

Methods: Data on the pilot phase of netCare (2012-2014) was evaluated and published in 2016. To examine the current implementation of netCare, we compared these evaluations with recent data (2019-2020) by repeating all calculations and analyses. We used Pearson's chi-squared test to assess emerging differences and to examine relationships between netCare usage and local conditions. We evaluated which health disorders frequently encountered and treated in Swiss community pharmacies may profit from a decision tree. Based on these results, we performed an unsystematic literature search to develop a new decision tree.

Results: 209 (56.3%) netCare pharmacies took part in the data collection in 2019-2020. Most netCare consultations were resolved by pharmacists (90%, compared to 76% in the pilot phase) and more prescription medication was dispensed for urinary tract infection (89.4% vs. 81%). Telemedicine was used less often (0.5% vs. 17%). Of pharmacist-led netCare consultations, 44.5% explicitly prevented a visit with other primary care services, and 81.5% of netCare patients reported a satisfactory therapy. As in the pilot phase, most netCare consultations took place on Saturdays (18% vs. 20%), and netCare was used more often than expected on Sundays in urban areas. We found an existing demand for a decision tree on eyelid inflammations. The subsequently developed decision tree distinguished between the hordeolum, the chalazion, acute or exacerbated staphylococcal blepharitis, and chronic blepharitis, and provided first-line therapy recommendations for these conditions.

Conclusion: netCare is an innovative service which makes use of pharmacist's expertise to provide easily accessible and satisfactory primary care for minor health disorders. In the future, netCare would profit from more diligent data collection, and could be used to evaluate the development of prescribing by pharmacists in Switzerland.

Acknowledgements: We would like to thank Gisela Ledergerber, MSc, formerly pharmaSuisse, for her kind support and for providing us with the data; Dr. Simona Berardi Vilei, PhD, pharmaSuisse, for taking over the correspondence with the validating experts.

Contact: dominik.staempfli@pharma.ethz.ch