

Part VI

Pharmaceutical Care for Specific Patient Groups

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In this section, we focus on pharmaceutical care for chronic patients and we selected some important diseases to address general and specific issues, challenges, pitfalls, helpful tools, and some illustrative examples of best pharmaceutical care practice.

Globally, the population is aging and the “oldest old” cohort, i.e., those aged 80 years and older, is also aging. The drivers for the demographic shift are well known, and recently the World Health Organization (WHO) launched a Global Strategy and Action Plan on Ageing and Health. The vision of this plan is to ensure “a world in which everyone can live a long and healthy life”. The practice of pharmacy and the provision of pharmaceutical care services play an important role, and hence the implications for the pharmacy profession within this vision are significant. Understanding the aging processes, specifically pharmacodynamics and pharmacokinetics, and how prescribed therapy can be optimized, will help to understand the pharmaceutical care needs of people (older and younger), and ultimately help to realize the WHO’s vision of enabling people to live a long and healthy life. Thus, with the exception of the chapter on pediatrics, the topics addressed in most chapters in this section comprise polypharmacy, adherence, medication review, and related screening tools as well as challenges in practice implementation.

Some authors also discuss the current evidence of pharmacist-led services. The latter remains a big challenge and we still struggle to prove that pharmaceutical care can improve clinical outcomes compared with usual care. We also wonder if such improvements translate to improved humanistic and economic outcomes. However, looking at cardiovascular disease, Schulz et al. report in Chap. 29 strong evidence that pharmacist intervention improves BP control in outpatients. At the same time, they claim that randomized controlled trials (RCTs) are still urgently needed with robust designs, studying large populations, adequate follow-up periods, and sufficient power to detect clinical relevant differences in endpoints. Similarly Chap. 27 reports, with respect to asthma and COPD, that with the exception of improvement of inhaler technique, it is challenging to find evidence

demonstrating pharmacists' positive impact on clinical, humanistic and economic outcomes. And in Chap. 26, on the aged, again positive results are known for process outcomes (e.g., improved prescribing, adherence) but evidence showing impact on healthcare services resource utilization, e.g., hospitalization and mortality is still lacking.

But, there are also positive examples. Kamal et al. conclude in Chap. 33 that, pharmacists can have direct influence on clinical outcomes in HIV, namely on viral load and CD4 count. Supporting/enhancing adherence to ARVs and co-treatments is the intervention. Throughout all chapters and all described diseases, improving adherence is a crucial task for pharmacists and lack of adherence is a major drug-related problem to be addressed through pharmaceutical care interventions. See also Chap. 5.

A further aspect seen in all chapters is the need for strengthening interprofessional collaboration and the need to get access to clinical data, namely diagnoses and the medical history. This is, for example, quite essential in pharmaceutical care for cancer patients (Chap. 32) and increasingly pharmacists get involved (at least in the hospital) in multidisciplinary teams of healthcare professionals.

Taking into consideration the individual patients beliefs about their condition, their attitudes in relation to their medication are of paramount importance. Understanding the individual patient's needs, including assessing the level of literacy and identifying which intervention works best, will enable the development of a more effective personalized approach. Patients need to be supported and empowered to take increased responsibility for their treatments and to actively participate in the management of their condition. Another keyword frequently addressed is shared decision-making with an increased involvement of the patient, and eventually his caregiver, into any design of a treatment plan.

In some diseases, the pharmaceutical care issues comprise nonmedicine-related interventions, namely on lifestyle. Management of type-2 diabetes (Chapter 28) starts with lifestyle modification before medicines are used and drug-related problems arise. And lifestyle interventions are also essential in patients with asthma and/or COPD (smoking cessation) and in all cardiovascular diseases. However, in some countries, such interventions are not provided by pharmacists and not considered part of pharmaceutical care, although of increasing importance to achieve optimal outcomes of pharmacotherapy.

To sum up, this section on eight specific diseases or patient groups provides a rich insight in different pharmaceutical care models. All reflect the setting and circumstances of the respective authors. Reading all chapters provides knowledge and skills to students and rich food for thinking and inspiration to the advanced practitioners. Finally, in the chapters on diabetes (28), cardiovascular disease (29), anticoagulation (30), and viral diseases (33) precious patient case scenarios are presented.