

NSAID), provided effective pain relief for early body pains (87% vs. 94%), provided long-lasting relief of muscular pain and inflammation (77% vs. 91%), soothed and eased muscular discomfort faster than other products (76% vs. 87%), was natural and a non-medicated, scientifically proven therapy (73% vs. 44%), provided the best combination of speed and duration (71% vs. 80%) and was convenient to use (89% vs. 94%). Overall, 69% of French community pharmacists would recommend the branded, non-medicated, OTC cold therapy vs. 81% who would recommend a branded topical NSAID for muscular strain or pain.

**Conclusion:** Most French community pharmacists recognise patients' growing demand and importance of non-medicated treatments. They had a favourable perception of a non-medicated, OTC cold therapy brand for the topical management of muscular strain and pain would recommend based on efficacy, safety and convenience.

### Portuguese Pharmacies' White Book – Translating priority areas into real-world impact

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**Introduction:** The Portuguese Pharmacies' White Book aims to be a crucial part of the ongoing development of pharmacies in Portugal, projecting the future of the sector and its action in the context of healthcare based on a process of collective co-creation. The White Book has a framework reflected in dimensions and axes of development, that result in different priority areas and proposals for action. As the White Book is a living document, it will be a never ending tool. Its priority areas and proposals for action hold great potential for real-world impact but require ongoing development to bridge the gap between theory and practice. It is now essential to move towards the implementation, translating the White Book's strategies into tangible results and turn its vision into reality through decisive action.

**Methods:** The process to translate the White Book into action started with a public event with several political parties in the Portuguese Parliament to showcase the action proposals that allow to achieve a greater potential for intervention of pharmacies in the people's health journey, through collaborative models with the National Health Service and other partners, the provision of proximity health care, the promotion of territorial cohesion and the sustainability of the sector. After its publication, the White Book was presented at several meetings, hearings, and events, in order to discuss its proposals and reach agreements. A WebApp was also developed to inform both pharmacies and society about the progress made in implementing the various proposals of action.

**Results:** Through all the actions developed to promote the White Book and its proposals for action, it was possible to already achieve some of the objectives.

Priority Area 1 "Prevention and Screening of Viral Hepatitis and HIV"

Conclusion of the Proposal for Action: "Dispensing of HIV pre-exposure prophylaxis (PrEP) in community pharmacies"

Priority Area 3 "Vaccination in complementarity with the NHS"

Conclusion of the Proposal for Action: "Definitive regulatory amendment to the current law, allowing free access to seasonal vaccination in pharmacies, under the same conditions of access as in the SNS network"

Priority Area 11: "Renewal of Chronic Therapy"

Conclusion of the Proposal for Action: "Development of the pharmaceutical service for the replacement of chronic therapy, which consists of the activation of prescription lines by the physician, with a pre-established period, allowing the pharmacist to dispense medicines prescribed for chronic diseases continuously"

Priority Area 14: "Hospital Only Medicine dispensing in Community Pharmacies"

Conclusion of the Proposal for Action: "Implementation of dispensing hospital medicines in community pharmacies through a sustainable and nationwide model"

**Conclusions:** The Portuguese Pharmacies' White Book serves as a continuously evolving resource, ensuring pharmacies and patients benefit from its advancements for years to come. Building on the success of the proposals of action accomplished, the Portuguese pharmacy sector remains committed to evolving and elevating pharmacy practice through this ongoing project.

### Remote monitoring in the management of heart failure

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**Background:** Remote monitoring (RM) is increasingly being integrated in the management of heart failure (HF) patients with cardiac implantable electronic devices (CIEDs).

**Purpose:** The aim was to assess the contribution of pulmonary fluid status RM in HF patients.

**Method:** The study was carried out at the main acute general hospital in Malta. After ethics approval, all patients (January 2015-December 2021) diagnosed with HF and with a CIED incorporating a pulmonary fluid status monitoring feature (OptiVol™ 2.0) which tracks intrathoracic impedance changes over time and has the possibility of being monitored remotely, were included in the study. A data collection sheet was developed and validated by an expert panel. Outcomes were assessed over one-year post-CIED implantation using hospital records.

**Results:** From the cohort of 45 patients assessed (35 male, 37 aged ≥61 years, mean left ventricular ejection fraction 29%, 23 classified as New York Heart Association Class II), the most common comorbidities were hypertension (n=37), dyslipidaemia (n=23), diabetes (n=22) and coronary artery disease (n=18). Pharmacotherapy for heart failure included beta-blockers (n=39), loop diuretics (n=25), angiotensin converting enzyme inhibitors (n=24), mineralocorticoid receptor antagonists (n=22), angiotensin II receptor blockers (n=6), ivabradine (n=6), empagliflozin (n=3), sacubitril/valsartan (n=3), and digoxin (n=1).

Twenty-one patients had the RM feature switched on. Alerts were recorded in 19 of these patients, which led to no action deemed necessary (n=12) or action taken (n=7) by cardiologist. Actions taken were increase in diuretic dose (n=5), hospital admission (n=3), limit fluid intake (n=1), and/or increase in dose of disease-modifying drug (n=1).

**Conclusions:** Pulmonary fluid status RM helped in the assessment of congestion and identified patients requiring therapy optimisation in the outpatient setting or hospital admission. More than half the patients opted to have RM switched off, indicating a need for more patient awareness on the benefits of RM. It is recommended to explore reasons for patients preferring to have RM switched off. Since data was collected from hospital records, patients who opted to have RM switched off were not interviewed to identify reasons. Possible reasons for apprehension towards RM reported in literature include anxiety due to alarms, feeling intimidated by the technology involved in RM systems, worry about the ability to understand or use the system effectively, concerns about privacy and security of health information transmitted through RM systems and some patients prefer face-to-face consultations with clinicians.<sup>1</sup>

## Identification and management of drug-related problems among hypertensive inpatients in Ghana

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**Background:** Cardiovascular disease-related death is on the rise, hypertension stands out as its most crucial risk factor. Globally, only one in five persons with hypertension have it under control. In sub-Saharan Africa, the prevalence of hypertension is highest, worsening the situation. Drug therapy problems contribute to these deaths. While outpatient studies on drug-related problems among patients with hypertension are common, research on hypertensive inpatients is limited.

**Purpose:** To identify drug-related problems in hospitalised hypertensive patients and assess the rate of acceptance of pharmacist-led interventions.

**Method:** This was a prospective study in four different Ghanaian hospitals among hypertensive inpatients. Patients' hypertension management were assessed by clinical pharmacists for appropriateness and effectiveness. Efficiency was based on the adequacy of blood pressure control. Any drug-related problems identified were documented and interventions offered. Patients' knowledge on their drug therapy were also assessed. Blood pressure readings were categorised in accordance with the European Society of Cardiology classification. The Pharmaceutical Care Network Europe V9.1 classification system for drug-related problems was used to group identified drug-related problems. Patients' knowledge on their drug therapy was assessed by asking them questions on drug name, dose, side effects and precautionary measures. They were then graded based on the number of questions they answered right from excellent to unsatisfactory. The proportions of proposed interventions were expressed calculated.

**Results:** Two hundred and sixty patients were involved in this study. A total of 131 drug-related problems were identified. Majority (181, 69.5%) of patients had at least one drug-related problem. The most common drug-related problems were the need for counselling (39, 29.8%), non-adherence (17, 13%), incomplete drug treatment (17, 13%), improper dosage (14, 10.7%), adverse drug reactions (11, 8.4%) and contraindications (8, 6.1%). Out of a total of 244 comorbidities, diabetes 76 (31.4%) was the commonest. A total of 84 interventions were proposed. The largest proportion (41, 48.8%) of interventions were implemented at the patient level, 30 (35.7%) at the physician level, 4 (4.8%) involving nurses and 9 (10.7%) in other aspects including