

DIGITAL MEDICATION MANAGEMENT IN HEALTHCARE SETTINGS: A KEY OPPORTUNITY FOR THE EUROPEAN UNION

Medication is the main part of the therapeutic process for hospital patients and the second highest spending chapter for health budgets. With hospitals stocking up to 200 medicines medication management (often referred to the “medication management pathway”) is an onerous activity for hospitals.

Hospitals’ medication management pathways are complex and include several activities involving ordering, reception, storing, prescription, compounding, distribution, and dispensing /administration of medicines to patients across wards in hospitals. Stock control, management and monitoring activities in this pathway require various clinical groups to ensure sufficient supplies and the safe administration of medicine to patients. Yet tasks in this pathway are defined by manual activities and digitalisation is lagging; the penetration of digitalisation of the medication management pathway in ALL European countries is low.

Digitalisation of medication management means full track-and-trace medication management solutions, otherwise known as closed-loop-medication management systems, from pharmacy to ward to the patient’s bedside with a smart, automated, completely integrated digital approach. On the occasion of the revision of the basic pharmaceutical regulation, in the context of the European Pharmaceutical Strategy, the implementation of the EU4 Health programme and the advent of the European Health Data Space, the Alliance for the Digitalisation of Medication Management in European Hospitals provides recommendations to the European Commission, the European Parliament and the EU Member States to seize unique opportunities in existing and forthcoming policy, legislation and programmes to revolutionise hospitals medication management pathways by implementing and upscaling digitalisation in hospitals medication management pathways.

Low levels of digitalisation of hospitals medication management pathways have implications for



Patients

Medication errors are the highest cause of adverse events in hospitals, in terms of morbidity and mortality rates. Medication errors are one of the top 10 patient harm issues; 1-in-5 patients in the OECD region have experienced medication-related harm during hospitalisation.



Healthcare workers wellbeing

Only 5% of doctors escape close, or direct, involvement with adverse events during their entire careers. Involvement in an adverse event causes psychological and emotional harm to healthcare workers; 31% of nurses involved in an adverse event require up to a 3-month absence from work due to chronic workplace stress.



The health system

In the OECD, costs from preventable hospital-acquired medication-related harm total over \$54 billion. In Spain and the UK medication errors cost up to 3% of their respective national healthcare budgets and create approximately 3 million avoidable hospital days (Elliott, et al., 2021).

The benefits of upscaling the digitalisation of hospitals' medication management pathways include

Resilient hospital systems with increased capabilities

Spending would be optimised, productivity increased, and waste reduced throughout the entire medication management pathway via the automation of manual activities which will reduce and eliminate non-reliable manual processes. Hospital managers and pharmacists would have data on expiring drugs supporting the environmental sustainability of supply chains.

More reliable information about the availability of medicines

More accurate visibility of hospitals' medicine supplies can provide real-time information on the availability of critical medical products supporting the extended role of the European Medicines Agency for the management of medicine shortages via the new IT European Shortages Monitoring Platform (ESMP). Accurate information on medicine supply can reduce stock-outs and support the reallocation of products within regions and across member states.

Availability of real-world data in interoperable systems

Hospital budgets can save up to 15% with better use of health information. Interoperable patient-generated health data, including data on medication, can pave the way for the delivery of personalised healthcare, the implementation of artificial intelligence (AI), the successful roll-out of the EHDS, the monitoring and evaluation of treatment outcomes and provide real-world data to support evidence-based decision-making.

Antimicrobial stewardship

The fight against AMR through the prudent use of antibiotics can be enhanced by modernising hospitals' medication management pathways. Implementing digital tools and systems can support antimicrobial stewardship programs to reduce antibiotic consumption and aid healthcare professionals ensure that the correct dose of the most appropriate antibiotic is administered to patients.

Calls for action for European policy makers

- 1 | Support the implementation of electronic medication management systems in EU hospitals as a critical success factor and key digital enabler for the effective, and efficient, functioning of the future European Shortages Monitoring Platform.
- 2 | Include in the future Digital Europe work programmes specific objectives supporting hospitals to update their IT infrastructure for the digitalisation of the medication management pathway.
- 3 | Include in the 2023 EU4Health work programme a specific funding mechanism, incorporating support for change management and building cultures of safety in hospitals, to support member states to implement digitised medication management systems in hospitals.
- 4 | Support the development of digital skills of the EU's health workforce and ensure that trained experts will support change management to implement the digital transition of European hospitals with sustained investments from the EU4Health Programme.
- 5 | Include medication treatment data from ambulatory care and hospitals as key data to be generated and shared by Member States within the European Health Data Space. Standardise medication treatment data collection within interoperable systems by introducing digital medication management systems in ambulatory care and hospital settings.
- 6 | Include a measure recommending the digitalisation of hospital's medication management pathways to enhance patient safety and the resilience of hospitals' pharmaceutical systems within the new pharmaceutical legislative framework

To read further please download our white paper here: <https://bit.ly/digitalmedicationmanagement22>

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